## READING \& MATH SKILLS

## A PARENT'S GUIDE

 WITH LESSONS \& ACTIVITIES TO SUPPORT YOUR CHILD'S LEARNING
## FROM THE

EDUCATION EXPERTS AT

## $3^{\text {RD }}$ GRADE <br> at HOME



## The Princeton Review

## Editorial

Rob Franek, Editor-in-Chief
David Soto, Director of Content Development
Stephen Koch, Student Survey Manager
Deborah Weber, Director of Production
Gabriel Berlin, Production Design Manager
Selena Coppock, Managing Editor
Aaron Riccio, Senior Editor
Meave Shelton, Senior Editor
Chris Chimera, Editor
Anna Goodlett, Editor
Eleanor Green, Editor
Orion McBean, Editor
Patricia Murphy, Editorial Assistant
Random House Publishing Team
Tom Russell, VP, Publisher
Alison Stoltzfus, Publishing Director
Ellen Reed, Production Manager
Amanda Yee, Associate Managing Editor
Suzanne Lee, Designer
The Princeton Review
110 East 42nd Street, 7th Floor
New York, NY 10017
Email: editorialsupport@review.com
Copyright © 2020 by TPR Education IP Holdings, LLC.
All rights reserved.
Published in the United States by Penguin Random House LLC, New York, and in Canada by Random House of Canada, a division of Penguin Random House Ltd., Toronto.

ISBN 9780525571759
Ebook ISBN 9780525571797
The Princeton Review is not affiliated with Princeton University.
Editor: Orion McBean

Production Editor: Sarah Litt
Production Artist: Deborah Weber
Cover art by Maria Starus / Alamy Stock Photo
Cover design by Suzanne Lee
a_prh_5.6.0_c0_r0

## CONTENTS

Introduction
Reading
Using Context
Before Reading
During_Reading: Connections
During Reading: Checking Understanding
After Reading
UsingIllustrations
Fiction and Nonfiction
Main Idea
Conclusions
Plot and Setting
Character
Putting Events in Order
Problem and Solution
Comparing and Contrasting
Cause and Effect
Fact and Opinion
Math
Addition and Subtraction
Multiplication
Division
Fractions
Decimals
Adding_Decimals
Subtracting_Decimals
Figures and Polygons
Three-Dimensional Figures
Symmetry.
Using Maps
Slides, Flips, and Turns
Patterns with Shapes
Patterns with Numbers
Length and Perimeter
Charts and Graphs
Range, Mode, and Mean
Probability.

## Introduction

## You and Your Child

Your job is to help your child excel in school. Everyone agrees that children bloom when their parents, family, friends, and neighbors nudge them to learn-from the Department of Education to the Parent Teacher Association, from research organizations known as "educational laboratories" to the local newspaper, from the National Endowment for the Arts to kids' shows on TV.

But state standards hardly make for enjoyable leisure reading, and plowing through reports on the best ways to teach reading and math can leave you rubbing your temples. You're caught in the middle: you want to help your child, but it's not always easy to know how.

That's where 3rd Grade at Home comes in. We identified the core skills that third graders need to know. Then, we put them together along with some helpful tips for you and fun activities for your child. We built this book to be user friendly, so you and your child can fit in some quality time, even as you're juggling all your other responsibilities.


For a helpful orientation to 3rd Grade at Home, head over to The Princeton Review's channel at www.YouTube.com/ThePrincetonReview.

Rob Franek, Editor-in-Chief of The Princeton Review, will share suggestions for how best to use these books with your child and get the most out of this educational tool. Our team at The Princeton Review is here to help you and your child as best we can.

## A Parent's Many Hats

As a parent, we understand you are expected to wear many hats. Check out the following ways you can use 3rd Grade at Home to get more involved in your child's academic life.

Teacher. You taught your child how to cross the street and tie his or her shoes. In addition, you may have worked to teach your child academic skills by reviewing the alphabet, helping your child memorize facts, and explaining concepts to your child. By doing so, you are modeling a great learning attitude and great study habits for your child and teaching the value of school.

Nurturer. As a nurturer, you're always there to support your child through tough times, celebrate your child's successes, and give your child rules and
limits. You encourage your child while holding high expectations. All of this can help your child feel safe and supported enough to face challenges and opportunities at school, like new classmates, new teachers, and so on.

Intermediary. You're your child's first representative in the world. You're the main go-between and communicator for your child (school-to-home and home-to-school).

Advocate. As an advocate, you can do many things: sit on advisory councils at school, assist in the classroom, join the PTA, volunteer in school programs, vote in school board elections, and argue for learning standards and approaches you believe in.

> Sometimes it's hard to know what to do, and it's easy to feel overwhelmed. But remember, it's not all on your shoulders. Research shows that family and close friends all have a huge effect on children's academic success.

## What's in This Book

The Skill<br>Each lesson targets a key third grade skill.

You and your child can either work on all the lessons or pick and choose the lessons you want. If time is short, your child can work on an activity without reviewing an entire lesson. Just for You
For tips, advice, insight, and clues from parents
and educators start here! Read this before diving into the rest of the lesson.
First Things First
This is the starting point for your child in every lesson.

Supplies
Get your child in the
 habit of gathering supplies before starting a lesson.

## Jump Right In!

These are questions for your child to complete independently. Give your child as much time as he or she needs. But if your child takes more than 30 minutes, consider the possibility that he or she may be having a hard time focusing, be unfamiliar with the skill, or have difficulty with the skill.

## Checking In

Check your child's answers to the Jump Right In! questions. Whether your child aced the Jump Right In! questions or had some trouble, here's stuff you can do to keep supporting your child.

## Watch Out!

These tips identify common pitfalls and help you help your child avoid them.

1. $3 \times 4=\quad$ 3. $6 \times 0=$
A. 1
A. 0
B. 7
B. 5
C. 9
(B) Checking In
(A) Answers for page 13:
2. A
3. C
4. An A+ answer: "Primates are animals such as apes, gorillas, and mo The story says that these animals are examples of primates and tha their hands and feet to hold on to things."
5. An A+ answer: "Aquatic means something that lives in the water. T says that fish and turtles are aquatic animals that live in the water

Did your child get the correct answers? If so, ask your child to point out the clues in the story that showed the meaning of the words watch and sign.

Did your child get one of the answers wrong? If so, explain to your child that watch and sign have more than one meaning. Review the answer choices to q and 2 and talk about the various meanings of the words watch and sign.

## III Watch Out!

Sometimes third graders try to figure out a word's meaning by using the det find the most interesting. For example, did your child select the wrong mea word "watch" in question 1? Maybe he or she was thinking about watchi

## What to Know... ...

Review these key skills, definitions, and examples with your child. Questions and tips are provided so you and your child can talk about the skills.

## Third Graders Are

## What to Know . . .

Kids use division all the time when they are sharing. Review these skills wit child this way.

- Equal groups are groups that have the same number of items in th
- Division is an operation on two numbers that tells how many grou It also tells how many items are in each group. The division sign
- The quotient is a number resulting from dividing a number by ano number. For example, in $24 \div 8=3$, the quotient is 3 . play into academic success. These tips give you insider info on the developmental stages of your child and how to help your child through his or her transitions.


## On Your Way to an "A"

Fun, educational activities your child can do with you, family, neighbors, babysitters, and friends at home,
in the car, during errands-anywhere.

## Study Right

Who hasn't heard that study skills can make or break a student? Check out these tips for study skills your child can apply immediately.

## On Your Way to an "A" Activities <br>  <br> Type: Art <br> Materials needed: Paper, scissors, a Number of players: 2 or more

Play "Starry, starry night." Fold a piece of paper in ha out half of a star that includes part of the fold. When up the paper, you'll have a whole symmetrical star. T this time, fold the paper twice. Cut out part of a star both folds. Try making stars with many folds. Then h around your room!

## . Study Right

Conducting research can help your child learn. Research symmetry Use a folder with two pockets. Label the left pocket "Asymmetrical" pocket "Symmetrical." Collect pictures as examples of asymmetrical shapes. Work with your child to identify the shapes and to put them pocket. Go through the pictures with your child and discuss why one symmetry while another does not.


## How Does Your Child Learn Best?

When children learn, they use their minds, their bodies, and their sensestheir sense of sight, sound, taste, touch, and smell.

Some students can succeed in any classroom while others need specialized learning support, but all of them have strengths and weaknesses. Your child can learn to rely on his or her strengths and then work on any weaknesses. This book is full of activities that address each of these learning styles.

Visually—Using Our Sense of Sight Your child may learn best by looking at pictures, outlines, maps, and such. Your child may like to draw pictures or take notes.

Auditory-Using Our Sense of Sound Your child may learn best by listening to teachers speak, discussing with friends and classmates, or listening to music while studying. Your child may like to tap a rhythm with his or her pen or pencil while studying.

Kinesthetic—Using Our Sense of Touch and Movement Your child may learn best by moving, taking action, or walking around.

Click here to download a printable PDF of select interactive activities from this book.

## How to Use Learning Styles

Talk with your child about successes at school, home, or with hobbies. How did your child learn what they needed to succeed? Does your child prefer to learn a certain way? Knowing how your child learns best can help you make the most of your child's natural strengths and work on his or her weaknesses.

Once you know how your child likes to learn, you can make sure your child includes those learning methods (especially when studying for important
tests). You can also support your child as he or she tries out more challenging learning methods. In the long run, this will help your child become a well-rounded learner!

## (1) The Goal

You know getting involved with your child's school experience is the right decision. But here's a reminder of some of the rewards you may reap! Research shows that getting involved in your child's school experience can result in:

- Increased academic performance
- Better behavior at school
- Increased academic motivation
- Better school attendance

And lest you think your child reaps all the rewards, you might find that helping your child learn gives you:

- More info about your child's school
- A greater sense of your own learning preferences
- More appreciation for all the work you did as a student
- A better relationship with your child's teacher and school staff


## Want to Know More?

Check out these online resources for more reading and math support.
Math Chimp. If you want information about more effectively helping your child in mathematics, go to http://www.mathchimp.com.

Early Math from PBS Parents. If you want activities to become more engaged in your child's school mathematics program, go to https://www.pbs.org/parents/learn-grow/all-ages/math.

Parent Resources from Reading Rockets. If you want to better understand how to enhance parent teacher conferences and relationships, go to https://www.readingrockets.org.

Office of Elementary \& Secondary Education (OESE). If you want information about training, advocates, or other educational assistance, go to https://oese.ed.gov.

Parents for Public Schools. If you want to find out about chapters of parents working together to advocate for school improvement, go to www.parents4publicschools.org.

Parent Teacher Association (PTA). If you want to connect with other parents involved in local schools, go to www.pta.org.

Parent Training and Information Centers. If you want to find out about education and services to assist a child with disabilities, go to www.parentcenterhub.org/.

Reading Is Fundamental. If you want help with supporting your child's reading and learning, go to www.rif.org.

## Reading



## Using Context

Y
ou've helped your child learn to read. You've worked hard to help yourthild read independently. When your child didn’t know a word, you might have said, "Look it up in a dictionary" or "Look it up online" or "Look at the pictures to figure out what the word means."

But sometimes there isn't a dictionary around or you can't get online immediately. And as your child learns to read more challenging books, there won't be as many pictures that can tip off your child to the meaning of unfamiliar words.

Most of the time, your child probably guesses at the meaning of words she doesn't know. But when your child is "guessing," she may actually be using context clues. You can help her learn to use context clues actively to make reading a richer and more rewarding experience.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- comic books or comic strips
- paper
- pencil
- crayons or markers
- movies
- dictionary

Directions: Read the following story. Then answer questions 1-4.

## What's Happening at the Zoo?

Skylar and her family went to the zoo. They were meeting the rest of their family there. When they got to the zoo, Skylar saw her aunts, uncles, and cousins. Her cousin Ella waved to her.

Everyone was excited to spend the day together. They needed to decide what animals to see first. Skylar saw a sign that showed a map of the zoo.

Then, Ella grabbed a list of the showtimes. The lion feeding was at 11:00 a.m. Skylar's dad checked his watch. They had an hour before the show began.
"I'd like to see the apes, gorillas, and monkeys, so let's see the primates first," Ella said. "I love how they use their hands and feet to hold on to things."
"Great!" said Skylar. "After that, let's see the aquatic animals. I like to look through the glass and watch the fish swim through the water. I also like watching the turtles spin around in the water. They're great swimmers."

Skylar's dad smiled. "You girls have the day planned out already."
"We don't want to miss a thing!" said Skylar.
"Yeah, let's get started," Ella said. "We have a lot to see today!"

1. Find the word watch in the story. In which sentence below does watch have the same meaning as in the story?
A. He wore a watch on his right arm.
B. Will you watch me dance?
C. She likes to watch baseball.
D. They kept watch over the campfire.
2. Find the word sign in the story. In which sentence below does sign have the same meaning as in the story?
A. Mom has to sign for the package.
B. Clouds are a sign that it may rain.
C. The sign says the store opens at 9:00 a.m.
D. Will you please sign my paper?
3. What does the word primate mean in the story?
4. What does the word aquatic mean in the story?

## Excellent Job!



## (A) Answers for this page:

1. A
2. C
3. An A+ answer: "Primates are animals such as apes, gorillas, and monkeys. The story says that these animals are examples of primates and that they use their hands and feet to hold onto things."
4. An A+ answer: "Aquatic means something that lives in the water. The story says that fish and turtles are aquatic animals that live in the water."

Did your child get the correct answers? If so, ask your child to point out the context clues in the story that showed the meaning of the words watch and sign.

Did your child get any of the answers wrong? If so, explain to your child that the words watch and sign have more than one meaning. Review the answer choices to questions 1 and 2 and talk about the various meanings of the words watch and sign.

Talk about how to determine the meanings of these words in their given sentences. Then, ask your child to find these words in the passage and identify what these words mean in that context. Ask your child to try to answer questions 1 and 2 again.

## Watch Out!

Sometimes third graders try to figure out a word's meaning by using the details they find the most interesting. For example, did your child select the wrong meaning for the word watch in question 1 ? Maybe he or she was
thinking about watching animals at the zoo, rather than using the context clues like "11:00 a.m." and "an hour." Help your child get in the habit of pointing out clues.

## What to Know...

Your child uses context clues all the time: to play video games, to figure out unknown words, to solve puzzles, and in other everyday activities.

Review these skills with your child this way:

- Context clues are words and phrases surrounding an unknown word in a passage that help you figure out the meaning of the unknown word.
- Multiple-meaning words are words that have several different meanings depending on how they are used in the sentence.

You and your child might read this sign at a zoo.

> You can see different types of animals around lakes and ponds. Egrets are often seen looking for fish in lakes and ponds. The egret's long legs, pointed beak, and white feathers make it a beautiful kind of animal.


Ask your child to use context clues to figure out what an egret is.

Here are some context clues that can help your child figure out that an egret is a bird:

- long legs
- pointed beak
- white feathers

Tell your child that kind can mean type or nice. Ask your child to use context clues to tell the meaning of the word kind in the zoo sign.

## On Your Way to an "A" Activities



Type: Active
Materials needed: comic books or comic strips Number of players: 2 or more

Choose a comic. Find a word you know. Then, look for clues in the comic that could help someone else learn the meaning of the word. Take turns. Then, find a word in the comic you do not know. Look for clues to help you find the meaning.


Type: Arts and Crafts
Materials needed: paper and markers or crayons
Number of players: 2 or more
Pick a multiple-meaning word such as race, bank, face, pen, bowl, ring, bat, sink, or pet. Talk about the different meanings of the word. Then, draw pictures showing each meaning. For example, you could draw a black bat flying and a baseball bat for the word bat.

Make a personal dictionary with your child. Whenever your child finds words they don't know, add these words and their definitions to the dictionary. Ask your child to draw pictures in the dictionary showing the meaning of the new words. Encourage your child to use the new words in
writing and in conversation when possible. Explain that building vocabulary helps people to become better readers and writers.


Type: Speaking/Listening
Materials needed: none
Number of players: 2 or more
Make up a new word. Think of a meaning for your word. Use your word in a sentence that includes context clues that tell the word's meaning. For example, "I like taking snarfdow lessons. I practice the instrument every day and am able to play beautiful songs." Say this sentence aloud. The other players need to use the context clues to figure out the meaning of your made-up word. Take turns making up zany words and coming up with clues.


Type: Game/Competitive
Materials needed: movies, dictionary, paper, pencil
Number of players: 2 or more
Watch a movie. Whenever you hear a word you don't know, try to figure out its meaning based on clues in the movie. Write the word and then write a list of clues on a piece of paper. The other players should identify different unknown words and write them with clues on a piece of paper. Pause the movie. Then, talk with the other players about the words
to figure out their meaning. Check your work by looking up the words in a dictionary. If you can't find them in a dictionary, ask your parent to review how you spelled your word. Keep playing as you watch the movie.

Your child may pick out details that are not context clues. Ask your child to draw a picture for each unknown word he identifies in the movie from the last activity. Then, tell your child to label what he drew and use his labeled drawing to figure out the meaning of the unknown word.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Look at the picture. Read the words in the word bank. For each word, choose the meaning that is shown in the picture. Color the picture to show the correct meaning.


Sink: to go underwater-Red
Sink: something that holds water-Blue
Can: to know how-Orange
Can: a metal container-Yellow
Bowl: a round dish-Green

Bowl: to roll a ball in bowling-Purple
Pet: a household animal—Brown
Pet: to rub or pat—Black

Answers: Sink—blue; Can—yellow; Bowl—green; Pet (dog)—brown

## Before Reading

Y
our child might rush headlong into every new activity. Why slow dowrrand think? Just jump headfirst into everything! Ah, the excitement of being young! But there are times when a little preparation can really pay off. Reading is one of those times.

Children need to set a purpose for reading before opening a book. Your child needs to know if she is reading for enjoyment or if she is supposed to be looking for information. She needs to warm up to what she is going to read in order to get the most out of it. She also needs to think about what she already knows about the topic, and think about what she might learn through reading.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- magazine photos
- pencils
- index cards
- tape
- movie or TV show that can be paused
- timer
$\square$

Directions: Read the following story. Then answer questions 1-4.

## Everyone Loves a Parade!

Jamal could hardly wait. His dad said they were going to spend the day together doing something special, but he had not said what they would do. In the car, Jamal was so curious that he had to ask, "What are we going to do?"
"Well," his dad said, "I'll give you hints. We are going to see clowns."
"Are we going to the circus?" Jamal asked.
"No," said his dad. "We will also see marching bands."
"Are we going to a football game?" Jamal asked.
"No," said his dad. "We will also see floats in the street."
"Now I know!" Jamal said. "We're going to a parade!"
Soon, they got out of the car. Jamal and his dad walked hand in hand through the crowd. The first band marched toward them. Jamal could hear the drums. He could feel the beating in his chest. After that, clowns ran down the street. Some threw beads. Some threw candy. Jamal got to shake hands with one of the clowns.

Behind the clowns was the first float. It had a lot of bright colors. People on the float waved. Jamal waved back. Then, he looked up at his dad. "Thanks, Dad! This is the best parade ever!"

1. Why might you read a story about a parade?
A. to enjoy the story
B. to learn about floats
C. to get ready for a test
D. to learn how to be a clown
2. Read the end of the story. What do you think happened next?
A. The parade stopped.
B. People played football.
C. The first float passed by.
D. Elephants marched past.
3. The title of the story is "Everyone Loves a Parade!" What does this title make you think about?
4. What would you expect to see at a parade?


## (A) Answers for this page:

1. A
2. C
3. An A+ answer: "I think about people who are excited to see a parade. I think about all the fun stuff to see at a parade."
4. An A+ answer: "I know parades sometimes have funny cars, dancers, and large balloons in different shapes. I also know that usually a lot of people go to parades."

Did your child get the correct answers? If so, ask your child to draw a picture of what he thought about when he read the story.

Did your child get any of the answers wrong? If so, ask your child to talk through how she picked the answer. Ask, "What answer choices do you think are wrong and why?" and "Is that answer based on the information in the passage?"

## Watch Out!

Sometimes third graders have trouble making predictions based on the text. They may make predictions based on what they would like to see happen. For example, with question 2, it might be a lot of fun to see elephants pass by. But the passage did not mention elephants. Review each answer choice with your child, and ask your child to point out any details in the passage that support each choice. Then, ask your child to identify the answer choice that is best supported by the passage.

## What to Know

Your child gets warmed up to play a game: learns the rules, stretches, gets supplies, or remembers previous games. But your child may not know how to get warmed up to read.

Review these skills with your child this way:

- Prior knowledge is any relevant information we have before we begin reading.
- A prediction is an idea or thought about the future.
- Strong readers set a purpose for reading-they know if they are reading to get information or to have fun. To get information, people might read newspapers, instruction manuals, editorials, essays, dictionaries, cookbooks, and other texts. To have fun, people might read poems, novels, plays, short stories, and other texts.


Remembering prior knowledge can help your child understand what they are reading. Your child might remember:

- Sports can be played outside and inside.
- There are different kinds of sports, like baseball, basketball, swimming, kickball, and others.

Strong readers know that they can read for a lot of reasons. Make sure your child predicts that "How to Win at Every Sport" gives information about how to play sports better. So, your child would read it to get information. "How I Beat Aliens at Basketball" probably has made-up stories that your child could read for fun.

## On Your Way to an "A" Activities



Type: Speaking/Listening
Materials needed: magazine photos
Number of players: 2 or more
Choose a picture in a magazine. Talk about what it reminds you of. Maybe you have done the same thing as the people in the picture. Maybe you have been to the same place. With the other players, talk about what is happening. Decide what you think will probably happen next.


Type: Active
Materials needed: pencils, 30 index cards, tape

Number of players: you
Write "For Fun" on 15 index cards. Write "To Learn" on 15 index cards. Walk around your house. When you find something you read for fun, tape a "For Fun" index card on it. When you find something you read so you can learn, tape a "To Learn" index card on it. Then, notice if you have anything you read for fun and in order to learn!


Type: Game/Competitive
Materials needed: a movie or TV show you can pause
Number of players: 2 or more
Play a movie or TV show. After watching for a little while, press "Pause." With the other players, predict what might happen next. Then, press "Play" and see if your prediction is right. Take turns pressing "Pause" and making predictions. Each time one of your predictions is correct, you earn a point. See who has made the most correct predictions by the end of the movie or show. That player is the winner!


Type: Game/Competitive
Materials needed: index cards, pencil, a timer
Number of players: 2 or more

Share the index cards with the other players. Write a different topic on each card (like ice cream, Saturdays, sports, outer space, etc.). Shuffle the index cards together, and then pick one card. Read the topic aloud. Then, ask the other players to list everything they know about the topic in one minute. Use the timer. Give each player one point for each item he or she listed. Take turns. Whoever has the most points wins the round. Continue by playing another round!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil! Refer to your Activities PDF for a printable version of this activity.

Directions: Look at the book covers. Circle two books you would read for fun. Draw a square around two books you would read to learn information.


Answers: For fun: Tootie Trumpet’s Trip to Town and Freddy the Frog Finds a Flute; To learn: How to Play the Trombone and Tips for Playing the Tuba

## During Reading: Connections

Have you ever heard your child say, "I love that movie. The main craratter is just like me!" or "I have to get this toy. It's part of the series!" Have you ever stood astonished as your child listed a series of precise details about how some new video game was based on some older video game? If so, then your child is making connections.

Making connections is how we make sense of the world around us, but it's another skill that your child might have trouble applying in school. Worried about the "right" answer or doubtful in unfamiliar territory, your child might make connections that are tentative or vague. Even if your child is comfortable with making connections, strengthening this skill can still benefit your child. Help your child by reinforcing that he has valuable ideas and by showing him how to connect those ideas to the things he reads in school.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- empty shopping bags
- books
- newspapers
- pencils


Directions: Read the following story. Then answer questions 1-4.

## Amy's Airplane Adventure

Amy missed her Aunt Debbie. Last summer, her aunt had moved to the other side of the country. They wrote letters, sent emails, and talked on the phone, but Amy had not seen her favorite aunt in nearly a year.

Then, Amy read a very exciting email from Aunt Debbie. "I can't wait to see you in a few weeks," she read.
"Mom!" Amy yelled. "Aunt Debbie is coming to visit!"
"No," her mom said. "She is not coming here. You are going to go see her!"

Amy was thrilled. She jumped up and down. But then she stopped.
"Mom," Amy asked, "how will I get there?"
"You are going to fly on a plane by yourself," her mom said.
Amy felt a knot in her stomach and a lump in her throat. Tears began to burn her eyes. She had never flown on a plane alone.

Her mom could see she was upset. So, they went to the library. They got books about airplanes. They read stories about flying. They went to the airport and looked around. They watched the planes take off and land. They even got to talk to a pilot.

Soon, Amy was excited about her trip. She could not wait to see Aunt Debbie, and she could not wait to fly!

1. At the beginning of the story, Amy was reading and writing emails. Who else reads and writes emails in this story?
A. Aunt Debbie
B. Amy's mom
C. the pilot
D. the librarian
2. At first, Amy was upset about flying. How did she feel about flying by the end of the story?
A. She was still afraid.
B. She did not want to go.
C. She was sad.
D. She was excited.
3. How would you feel about flying alone? Explain.
4. In the story, Amy can email her aunt. How do you think people used to communicate with each other before email? Did Amy use any of these ways?

## (A) Answers for this page:

1. A

2。D
3. An A+ answer: "I would be afraid of flying alone because I would not know anyone. I've never been that far away from my family, and going on a trip by myself would be scary at first. Once I got there, it would be fun."
4. An A+ answer: "Before email, people used the phone and regular mail to communicate. The story said Amy also talked to her aunt on the phone, and they sent letters to each other."

Did your child get the correct answers? If so, have your child show you where in the story he or she found the answer.

Did your child get any of the answers wrong? If so, ask, "Why did you choose that answer?" Maybe your child thought about his or her own experiences, rather than Amy's experiences in the story. For example, for question 2, maybe your child thought about how he or she would feel about flying, rather than how Amy felt. You could say, "Let's read that part of the story again. Tell me when you hear the answer to question 2."

## Watch Out!

In third grade, students are becoming more aware of the world around them. If a certain issue is on your child's mind, he or she may try to relate that issue to a story, even if there are no details in the text to support this. Think about what your child sees on the news or is learning about our world. Hurricanes, airport security, poverty, professional sports play-offs, and upcoming local events may be the big stories on the evening news each
night. Your child may think Amy is sad about flying because she'll miss the opening of the new museum downtown, if that is something your family has been looking forward to. Help keep your child on track by pointing out that connections should be related to what's happening in the story.

## What to Know...

Your child makes connections in all sorts of situations. Review these skills with your child this way:

- Text-to-text connections are when you build links and relationships between different parts of a text. For example, you can build links between texts, such as from a story to a poem, movie, or song. You can also link details from the beginning of a text to the end of a text.
- Text-to-self connections are when you make links and relationships between the text and your everyday life, personal experiences, and private thoughts or feelings.
- Text-to-world connections are when you build links and relationships between the text and the world. You can link details from the text with the things you see in the world and events going on in the world.

Imagine that you and your child see someone at the store purchasing luggage.


> Tell your child to look at the picture. Ask your child to connect the picture with anything in the story "Amy's Airplane Adventure." Then, ask if anything he or she experienced in life comes to mind. Finally, ask if anything about the world comes to mind.

Making word webs can help your child see connections and organize ideas. Draw a circle in the center of a piece of paper. In it, write "Amy’s Airplane Adventure." Then, draw three circles around it and label them "Text-toText" (the picture of a person buying luggage), "Text-to-Self," and "Text-to-World," respectively. Draw a line to connect each of these circles with the center circle. Each time you or your child makes a connection, decide what type of connection it is. Then, write the connection next to the circle for that type of connection.

Here are some examples of text-to-text connections:

- "Amy will need to pack a suitcase to visit her aunt. This person might pack the suitcase to visit someone."
- "Amy's aunt probably needed to use suitcases when she moved. This person might use the suitcase in a move."

> If your child is unsure how to make a text-to-text connection, ask, "Can you imagine Amy in the picture? If so, what is she doing?" Encourage your child to draw Amy into the picture.

Here are some examples of text-to-self connections:

- "We packed suitcases before visiting Grandma. This person might pack the suitcase to visit someone."
- "We store our winter clothes in suitcases, so maybe the person in the picture will store things in the suitcase."

> Are your child's text-to-self connections vague? If so, ask your child to point out a detail in the picture and explain how he or she shares or relates to that detail or is different from that detail.

Here are some examples of text-to-world connections:

- "Our neighbor has to travel for work and uses suitcases. I wonder if this person is traveling for work."
- "I see teachers and students using small suitcases to carry books and supplies. I wonder if this person has to carry supplies for a job."

> If your child is having trouble making links between the picture and the world, he or she may be overwhelmed by the word world. Remind your child of familiar things in the world. For example, about travel, you could remind your child of suitcases in the home; visits by car, bus, train, or airplane; and scenes of travel on TV.

## On Your Way to an "A" Activities



Type: Active
Materials needed: empty shopping bags
Number of players: 2 or more
With the other players, pick a favorite story, song, movie, or TV show. Then, go on a scavenger hunt. Find things that remind you of some part of your favorite story. Collect several things. Then, share your items with the other players. Tell why each reminds you of the story.


Type: Game/Competitive
Materials needed: books and newspaper

Number of players: 2 or more
Choose a book with the other players. Read the first page. Then, look in the newspaper for something that is connected to what you've read in the story. Take turns reading and looking for connections in the newspaper. Whenever a player makes a connection, he or she gets one point.

## Third Graders Are...

Third graders are full of energy. After sitting all day in school, your child may not be thrilled with sitting to do anything else. But who says you have to sit still to do these activities? Let your child stand up or sit on a swing to read. Or lay on the floor together. Learning does not have to happen at the kitchen table.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Amy is reading about airplanes. She has made five connections. On a piece of scrap paper, draw a line from each of her connections to the correct category.


Answers: Text-to-Text—3; Text-to-Self—2 and 5; Text-to-World-1 and 4

# During Reading: Checking Understanding 

Imagine that your child is reading aloud to you. At the end of the book, you realize that he or she has not missed a single word! Every word was pronounced correctly. Your child stopped at every period. Has the challenge of reading been conquered? Not necessarily. Just because your child can read something does not mean that he or she understands the book.

Third graders can get so wrapped up in sounding out words that they forget to pay attention to the meaning of the story. They can make it through an entire book and have only a vague idea of what they have just read. Your child might not realize that being confused about what he reads is completely normal. It's all part of learning how to become a strong reader. As a parent, you want to encourage your child to understand that confusion is natural. You also want to give your child easy, helpful ways of dealing with confusion. Once your child knows how to deal with confusion, he can really dig into his favorite books.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- magazines
- paper
- crayons or markers
- pencils

Directions: Read the following poem. Then answer questions 1-4.

## Troy's Sunny Saturday

I feel the sun shine on my face
and the sand between my toes.
I listen to the crashing ocean waves
and smell salt air in my nose.
We spread the blanket on the perfect spot, and I take the shovel in my hand.
I start to dig and begin to build a castle made from sand.

I look for shells and bring them back
to make castle windows and doors.
Then my sister and I take a swim
and ride the waves back to shore.
We take a break for our picnic lunch, then find shells to take back home.
We swim and play until the day grows cool, and then it's time to go.

1. Troy found seashells. What quote describes what he did with the seashells?
A. "to dig and begin to build a castle"
B. "to make castle windows and doors"
C. "to play until the day grows cool"
D. "to listen to the crashing ocean waves"
2. Which of these questions is not answered by the poem?
A. What does Troy feel between his toes?
B. What does Troy build with sand?
C. What does Troy smell?
D. What did Troy eat for lunch?
3. Imagine "Troy's Sunny Saturday." Draw what you imagine here.
4. What questions do you have about Troy?


## (A) Answers for this page:

1. B
2. D
3. An A+ answer: Your child should draw a picture of Troy at the beach. Your child could include details such as a sand castle with seashell doors and windows, a picnic lunch, waves, and Troy's sister.
4. An A+ answer: Your child should write questions about the poem, such as "Why did Troy go the beach?"; "How many shells did they find?"; and so on.

Did your child get the correct answers? If so, ask your child to come up with one question about each of the stanzas in the poem.

Did your child get any of the answers wrong? If so, ask, "Did you check your answer by going back to the poem?" Maybe your child didn't think to make sure that his answer is supported by details in the poem. Review the answer choices and ask your child to locate details in the poem that show whether the answer choice is correct or incorrect.

## Third Graders Are...

Third graders are not always ready to admit when they are confused or when something is hard. Instead, they may say things like "This is boring" or "Why do I have to do this?" Find out if your child is frustrated or insecure, and explain that confusion is a natural part of the reading process. The strongest readers get confused. Also, find out how to help your child through his or her confusion. Maybe your child
might find it more satisfying to read if he or she read a different book or if you read together.

## What to Know...

Your child may not know when he misunderstood something he read. Or he might know he is confused but not know how to fix it.

Review these skills with your child in this way:

- Picture the story. Strong readers develop their comprehension by picturing the story (imagining the details and the actions) as they read.
- Check understanding and clear up confusion. Strong readers check their understanding. They ask themselves questions before they read, while they read, and after they read. When strong readers identify that they are confused, they take the time to answer their questions before they continue reading, and they use details from the story whenever possible.

Your child might read instructions for an arts and crafts project.

## How to Make a Seashell Castle

1. Gather materials.
2. Cut out four walls from the cardboard. Glue together. Glue a paper towel roll to each corner.
3. When the walls are dry, cover them with seashells. Glue them to the cardboard.

$\overline{\text { Ask your child to think of at least one }}$ question just by looking at the pictures and the steps. Talk about possible answers. Then, ask your child to think of a question after each step and talk about possible answers.

Your child might come up with questions about the details in the story. Maybe your child understood most of the castle directions but missed some details.

- Should I wait for the walls to dry before I glue on the seashells?
- What materials will I need?

Can your child find the details in the
castle directions or artwork to
answer his or her questions?

Sometimes children have questions about what they feel or think about a story. Your child might wonder:

- How does that make me feel?
- Am I supposed to feel what the character feels, or can I feel something different?
- What do I want to happen?


## Watch Out!

Children struggling with reading comprehension can come up with some pretty far-fetched questions, unrelated to what they read. They can also draw a blank when asked if they have any questions. For example, your child might ask, "Did Troy have glue at the beach?" Or did your child not understand the story but not have any questions? If so, model asking questions when you read books, newspapers, street signs, anything! Show your child it's okay to be confused.

A picture can say a thousand words. But drawing pictures can also help your child keep track of what she is reading. Ask her to further develop her picture of the poem about Troy or to illustrate the directions for building the seashell castle. Then, have her label the picture. Check that the picture shows the details correctly. Your child can peek at the pictures whenever she needs a quick way to check her understanding.

## On Your Way to an "A" Activities



Type: Speaking/Listening
Materials needed: magazines
Number of players: 2 or more
Choose a picture from a magazine. With the other players, talk about what is happening in the picture. Then, think of questions you have about the picture. List several questions. Then, tell a story about the picture. Be sure to answer all of your questions in your story.


Type: Arts and Crafts
Materials needed: paper and crayons or markers
Number of players: 2 or more
Draw a picture. Do not let the other players see it. Then, tell them about what you drew. The other players will think about your picture in their minds. Then, the other players will each draw what you described. Compare pictures. See if the other players' pictures look like what you drew. Take turns drawing and describing pictures.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Picture the poem "Troy's Sunny Saturday." Find the things in the picture below that do not make sense based on the details in the poem. Cross them out, then color the rest of the picture.


Answers: The castle door should be a seashell, not a fork. The birthday cake, balloons, birthday hat, and kitten should not be there. Troy should have a shovel, not a pail, in his hand.

## After Reading

Have you ever asked your child about his or her day, only to end up information, the better.

The same thing can happen when your child tells you about a book or story. Your child has worked hard for many years learning to decode words and understand the meaning of what they read. Now, they want to show you all the good work they've done by telling you all about their favorite story! While it can be great to get all the details, there are definitely days when you have time to hear only the highlights.

Third graders might not realize how giving a summary can be more effective than telling everything. They might not think about how often they encounter and rely on summaries every day. When picking out a movie, they read summaries of movies. When deciding on what to eat at the cafeteria, they read summaries about what's for lunch (soup with noodles and tomatoes or soup with beef and peas).

Your child uses details and summaries to make choices every day. So, encourage your child to practice summarizing his or her stories.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

- paper
- index cards
- pencils
- art supplies such as construction paper, glitter, and glue
- crayons or markers

Directions: Read the following passage. Then answer questions 1-4.

## Caring for Hermit Crabs

Hermit crabs make great pets. They are easy to care for and do not need many things. They are also a lot of fun to watch!

## Supplies

Your hermit crab will need an old fish tank for a home. He will also need gravel and extra shells. You will need to get small bowls to hold food and water. Be sure the bowls are small! Your hermit crab will need to climb into them-and then be able to climb out of them!

## Care

Be sure to keep his home clean. Once a month, empty the fish tank. Rinse everything, but do not use soap. When everything is dry, put your crab back in the tank.

Also, be sure to give your hermit crab food and water every day. You can buy food for him at the pet store. He will also like to eat fresh fruit and vegetables. Your hermit crab will not just need water to drink. He will also need you to sprinkle warm water on him. This will keep him from drying out.

## Shells

Hermit crabs have hard shells. They use their shells as homes and as protection. In fact, they rarely leave their shells. Sometimes, though, your hermit crab will grow too big for his shell. He will need a bigger shell. Be sure to keep larger shells in your hermit crab's tank. That way, when the time is right, your hermit crab will choose a new shell home to carry on his back.

1. Which of these is the best summary of the "Supplies" section?
A. Hermit crabs live in old fish tanks.
B. You will need a fish tank, gravel, shells, and food bowls to care for a hermit crab.
C. Hermit crabs crawl in and out of their food and water bowls, so the bowls need to be small.
D. You need to buy two small bowls so that you can have one bowl for food and one for water.
2. Which of these is a detail from the passage?
A. Hermit crabs are cheap to buy.
B. Hermit crabs are better pets than cats.
C. Hermit crabs use shells as protection.
D. Hermit crabs are hard to care for.
3. Write as many details as you can remember from the passage.
4. Now, pick the most important details from your list and use them to write a summary of the passage.

## Excellent Job!



## (A) Answers for this page:

1. B
2. C
3. An A+ answer: "Hermit crabs make great pets and are easy to care for. To have one, you need a fish tank, gravel, and extra shells. You need two small bowls. The bowls should be small because the hermit crab will crawl in and out of them. Be sure to clean the tank once a month, and give the crab food and water every day. Hermit crabs eat food from pet stores and fresh fruit and vegetables. Sometimes sprinkle warm water on him. Hermit crabs live in hard shells. When they grow, they need larger shells to move into."
4. An A+ answer: "Hermit crabs are easy to care for because you need only a few supplies and to feed them once a day. So, hermit crabs make great pets."

Did your child get the correct answers? If so, have your child explain what makes a good summary.

Did your child get any of the answers wrong? If so, explain to your child that a good summary includes only the most important details. Then, ask your child to pick out details he or she thinks are important and explain why. Check that your child understands that important details have a big effect on the meaning of the text.

## Watch Out!

Summarizing can be challenging for third graders. Their summaries may include way too many details and be more like a book report. If you find
that your child is including too much information in a summary, guide him or her to tell the most important details using only one to three sentences.

## What to Know...

Third graders may have trouble remembering what summary and detail mean because these are not words they often hear outside of school.

Review these skills with your child this way:

- A detail is a piece of information in a passage, sometimes given in a word or phrase.
- A summary is a retelling of the most important information in a passage or the main points of a story. A summary includes the topic, the major events, the main theme or ideas, or the most important characters. A summary is usually brief.


Third graders should be able to recognize the following details in the postcard:

- The crab's name is Harry.
- He lives in a fish tank.
- He is fun to watch.

> Ask your child to identify details from the postcard. Tell your child to include details from the picture of the hermit crab.

When writing summaries, your child might have a hard time deciding which details are the most important. Important details usually affect the meaning of a text more than less important details.

More important:

- Harry is a great pet.
- Harry lives in a fish tank.
- He is fun to watch.

Less important:

- The fish tank is red.
- It's fun to watch him crawl, eat, and move into new shells.

Explain to your child that the postcard tells the basics about Harry. So, it's more important to know that Harry lives in a fish tank than to know the color of the fish tank. Knowing the color of the fish tank doesn't change the meaning of the postcard.

The best summaries include the most important details. Look at these examples:

- Hermit crabs are fun to watch and make great pets.
- My friend has a great time watching her pet hermit crab, Harry.

> Ask your child to come up with a summary of the postcard in his or her own words. See if your child can summarize the postcard in one sentence.

## Third Graders Are...

Third graders are often anxious about taking tests. To help them prepare for tests, they need plenty of chances to practice. Review skills in a non-threatening and fun way. Then, talk about how the skills might be presented on a test. Knowing what to expect can help your child feel more comfortable when test time arrives.

## On Your Way to an "A" Activities



Type: Reading/Writing
Materials needed: paper, index cards, pencils
Number of players: 2 or more

Write a list of movies that all the players have seen. Then, each player should write a brief summary of each movie on an index card. Don't show each other your summaries! Then, read one summary aloud. See if another player can name the movie. Take turns reading your cards to each other and guessing the movies.


Type: Arts and Crafts
Materials needed: construction paper, pencils, markers, glitter, glue, other art supplies
Number of players: 1
Think about your favorite book, movie, or story. Write a list of details from it. Then, make a poster by drawing pictures of each detail on the construction paper. Circle three details that you think are the most important. Then, in the center of the poster, write a summary in two or three sentences.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Imagine you have a hermit crab for a pet. Cross out the details that you think are less important. Then, use the important details to write a summary in a postcard to a friend. Color the picture of the hermit crab!

## Bright red

Like to climb
Climbs on rocks and bowls
Drinks water
Eats food
Likes bananas
Doesn't like apples
Bought at a pet store
Pet store was near my school


Answers: Less important details could be: climbs on rocks and bowls; likes bananas; doesn't like apples; pet store was near my school.

## Using Illustrations

Y
ou know the saying "A picture is worth a thousand words." Well, a few years ago your child knew well the value of a picture from reading picture books. But now your child knows that grown-ups read books that are mostly words. Books with lots of words feel very grown-up. So, by third grade, your child might think of pictures as a thing for "baby books."

Your child might get into the bad habit of ignoring the pictures or illustrations that come in a book. While focusing on the text may seem like breaking exciting new ground to your child, the pictures and illustrations often carry important information that's not in the text. Ignoring the pictures could leave your child in the dark. Your child needs to use the pictures to fully comprehend a passage. Make sure your child remembers what pictures are worth.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## \&

Here's what you'll need for this lesson:

- picture books
- paper
- crayons or markers
- pencils

Directions: Read the following instructions. Then answer questions 1-4.

## How to Make a Terrarium or Vivarium

Have you ever had a terrarium or a vivarium? They are fun and easy to make.

Step 1: Get a container that you can see through, such as an old fish tank, an empty soda bottle, or an empty milk jug.

Step 2: Put a layer of pebbles on the bottom.
Step 3: Cover the pebbles with about two inches of dirt.
Step 4: Add small plants or seeds. Also, add some rocks.
Step 5: Add a little water to make everything slightly damp, but don't add too much water.

Step 6: Close your terrarium with a cover or a bottle cap.

Put your terrarium in a place with a little sunlight. You can watch the water turn to mist and dew. You can also watch the plants grow!


A terrarium with small animals is called a vivarium. Make air holes in the terrarium. Add some small animals (like grasshoppers). Make sure you feed your animals or include plants that your animals can eat.

1. What type of container is used in the picture?
A. fish tank
B. soda bottle
C. small jug
D. shoe box
2. What could you learn from the vivarium in the picture?
A. how rocks are formed
B. how to start a garden
C. how to care for fish
D. how lizards catch insects
3. What types of animals could live in a vivarium? How do you know?
4. Does the picture show a terrarium or a vivarium? How can you tell?

## Excellent Job!



1. B
2. D
3. An A+ answer: "Grasshoppers, lizards, and bugs could live in a vivarium. The passage says small animals like grasshoppers could be added, and the picture shows a lizard and an insect."
4. An A+ answer: "The picture shows a vivarium. I can tell because it includes animals. The passage says that a terrarium with animals is called a vivarium."

Did your child get the correct answers? If so, ask your child to describe how the pictures relate to the steps.

Did your child get any of the answers wrong? If so, ask, "Why did you choose that answer?" Your child may have been hesitant to rely on the picture and instead used only information from the text. You might say, "The story talks about several containers that could be used, but let's look at the picture. What type of container does it show?"

## Watch Out!

Sometimes third graders are so used to hearing, "What does the story say?" and "Can you find the answer in the text?" that they are resistant to look for answers anywhere else. They need to be reminded that illustrations are more than just a decoration on the page. Illustrations contain information too. Explain to your child that sometimes the pictures contain information that the passage doesn't have. Ask your child to come up with reasons he or she might want to look at the pictures when answering questions.

## What to Know...

Children can get into the habit of overlooking illustrations when they read. But there is often a lot of important information included in pictures. Paying attention to illustrations, graphs, charts, maps, and captions can boost your child's comprehension significantly.

Review these skills with your child this way:

- Illustrations often show a picture of topics and events from the passage. Strong readers often use illustrations to make sure they understand what is going on in the passage. They identify details in illustrations and answer questions based on the details in illustrations. Strong readers understand that illustrations and passages go hand in hand and that sometimes illustrations show details not mentioned in the passage.

Your child might see a poster in the neighborhood.

## FREE!

My cat had babies. They are 4 weeks old. We can't keep them. We want to find a good home for them.


Call Don if you're interested at 555-1212.

> Ask your child to identify a detail in the illustration that does not appear in the text. Also, ask your child to identify a detail from the text that does not appear in the illustration.

Third graders should be able to connect the illustration to the text.

- The illustration shows that there are three kittens and that the kittens are black, white, and black-and-white. These details do not appear in the text.
- The text says that the kittens are 4 weeks old. This detail isn't in the illustration.


## FREE!

My cat had babies. They are 4 weeks old. We can't keep them. We want to find a good home for them.


Call Don if you're interested at 555-1212.

## Third Graders Are . . .

By third grade, children aren't just learning to read; they're beginning to read to learn. They're reading about American
history, the solar system, dinosaurs, and other topics in school. They have to learn from what they read. Your child will need to rely on ever more complicated illustrations. Encourage your child to point out any illustrations he finds in nonfiction and informational texts, such as timelines, diagrams, photographs, etc. Ask your child to tell what he or she learned from the text, as well as from the illustrations.

## On Your Way to an "A" Activities



Type: Reading/Writing
Materials needed: picture books
Number of players: 2 or more
Choose a book that is mostly pictures. Look at all the pictures in the book, but don't read the words. Using only the pictures, tell the story to the other players. Then, read the book together. Find out how close your story was to the actual story! Switch turns.


Type: Active
Materials needed: paper, pencil, crayons or markers
Number of players: 2 or more

With the other players, see how much information you can put into pictures. Draw a picture (don't show it). Try to include as many details as possible in your picture. For example, if you want to draw a picture of the beach, you could add details like seagulls, people, towels, sand castles, umbrellas, and so on. The other players should do the same. Trade pictures with another player. Then, point out all the details you see in each other's pictures. When you are both done, discuss what you saw in the pictures. Did you find all the details in the other player's picture? Did the other player find all the details in your picture?

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab some crayons or markers and a pencil!
Pete's Pet Store has classes teaching about animals. The chart below shows what classes Pete has planned for this weekend.

| Time | Friday | Saturday | Sunday |
| :---: | :---: | :---: | :--- |
| 9-11 a.m. | Terrariums | Turtles and <br> Frogs | Your Pet <br> Lizard |
| 2-4 p.m. | Vivariums | Snakes! | Terrariums |
| 6-8 p.m. | Your Pet <br> Lizard | Vivariums | Reptiles |

1. When are the terrarium classes scheduled?
2. When can you learn about choosing a snake?
3. On a piece of scrap paper, draw the chart and use crayons or colored pencils to do the following:

Color classes about terrariums blue.
Color classes about vivariums yellow.
Color classes that teach about animals green.

Answers: 1. Friday 9-11 a.m. and Sunday 2-4 p.m.; 2. Saturday 2-4 p.m.; 3. boxes labeled "Terrariums" should be blue; boxes labeled "Vivariums" should be yellow; remaining boxes should be green.

# Fiction and Nonfiction 

By third grade, children are exposed to more and more types of stories, and other types of fiction. Mostly they read for fun. Now they are starting to read nonfiction texts, including textbooks, biographies, and magazine articles. They are reading these to learn and find information.

Sometimes, your child may have trouble telling the difference between fiction and nonfiction. This might not seem like a big deal, but the type of text changes how your child will approach reading the text. Your child might also have different purposes in reading nonfiction than in reading fiction. Help your child handle this new way of thinking about what he or she reads.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- pencil
- paper
- photographs
- books on a bookshelf
- crayons or markers
$\qquad$

Directions: Read the following passage. Then answer questions 14.

## Our Solar System

We live on the planet Earth. Our planet is part of a solar system. There are other planets in our solar system. The center of the solar system is the sun.
The planets closest to the sun are called the inner planets. They are the hottest. The inner planets are Mercury, Venus, Earth, and Mars. They are fairly small, and they are rocky like Earth.

The next planets are the outer planets. They are colder. The outer planets are Jupiter, Saturn, Uranus, and Neptune. There is also Pluto. For years, scientists couldn't decide if Pluto was a planet. Right now, Pluto is considered a dwarft planet, smaller than the others!

## My Trip to Mars

My family takes the best vacations. Two summers ago, we went to Florida. Last summer, we went to Canada. This summer, we went to Mars. It was the best trip ever!

Mars is a planet next to Earth. It is too far to drive, and there are no roads. So, we rode in a rocket. We flew past stars and comets. Then, we landed on Mars. It is called the Red Planet and is about half the size of Earth. It is also colder than Earth because it is farther from the sun.

We put on our space suits, walked around, and collected rocks. We took a lot of pictures. Then, we got back in our rocket and came home. I can't wait for next summer's trip! Who knows where we'll go!

1. Which passage is nonfiction? How do you know?
2. Write three things you learned from the nonfiction passage.
3. Which passage is fiction? How do you know?
4. Sometimes fiction contains facts. What facts did you read in the fiction passage?


## (A) Answers for this page:

1. An A+ answer: " 'Our Solar System' is nonfiction because it provides only facts. There's nothing made up in the passage."
2. An A+ answer: "I learned that the planets closest to the sun are called inner planets, are the hottest, are fairly small, and are rocky."
3. An A+ answer: " 'My Trip to Mars' is fiction because it tells a made-up story about someone who goes to Mars on vacation."
4. An A+ answer: "The fiction passage said that Mars is a planet next to Earth, which is a fact. It also said that Mars is colder than Earth, which is also a fact."

Did your child get the correct answers? If so, ask your child to tell what details helped him or her decide whether the passages were fiction or nonfiction.

Did your child get any of the answers wrong? If so, discuss examples of nonfiction with your child, such as the dictionary, encyclopedias, and newspapers. Then, discuss examples of fiction with your child, such as novels, short stories, and plays. Then, ask your child to use this information to try to answer the questions again.

## Watch Out!

Sometimes third graders will mistake a fiction passage for nonfiction if it contains factual information, or even information that sounds like it might be true. Remind your child that for a passage to be fiction, the story must be made up, even if parts of it seem real or are true. For example, a story about a kid going to a park is fiction if the kid is a made-up kid, even though it's possible for a kid to go to a park.

## What to Know...

Third graders can get the terms fiction and nonfiction confused. Review these skills with your child this way:

- Fiction is writing that tells a made-up story. Fiction tells a story with imagined characters and events. Stories and fairy tales are examples of fiction.
- Nonfiction is writing that tells only facts and true information. Textbooks are examples of nonfiction.

Here are examples of books your child might read in third grade.


Ask your child to tell what they might read in each of the books.

Most third graders can recognize the following information about fiction and nonfiction:

- The Best Vacations! is nonfiction because it contains only facts and information about vacations.
- Take Me to Your Leader is fiction because it tells a made-up story about an alien.
- Pluto Club is fiction. While it may include facts, it tells a made-up story about a group of friends.

If your child is a reluctant reader, you may find that nonfiction can grab your child's attention and interest. Take your child to a bookstore or library, and encourage your child to pick out books on topics that he or she finds interesting, such as books about a favorite race car driver, climbing the Himalayas, dinosaurs, or other topics.

> Third Graders Are...
> Third graders have very active imaginations. Sometimes, this makes it hard for them to tell the difference between fact and fiction. Help your child focus on what is real and what is make-believe. Talk about what makes them different. Be sure to praise your child's creativity and imagination.

## On Your Way to an "A" Activities



Type: Reading/Writing
Materials needed: photographs, paper, pencil
Number of players: 2 or more

Find a photo or print an image from online. Write a nonfiction sentence about the picture. This should be a fact or piece of information. Then, write a fiction sentence about the picture. This can be something imaginary or made up. Read your sentences aloud. The other players have to figure out which sentence is fiction and which is nonfiction. Then, take turns. Another player should find a photograph and write fiction and nonfiction sentences. You should decide which sentence is fiction and which is nonfiction.


Type: Active
Materials needed: books on a bookshelf
Number of players: 1 or more
Find a bookshelf with a lot of books. Sort them by fiction and nonfiction. Put all the fiction books on the left. Put all the nonfiction books on the right.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Put the books on the right shelf! Fiction books are on the top shelf. Nonfiction books are on the bottom shelf. Read the book titles. Then, write the number of each book where it belongs.


1. Saturn, the Planet with Rings
2. The Cow Jumped Over the Moon
3. Learn About the Solar System
4. The Moon Is Made of Green Cheese
5. The Inner Planets
6. Jupiter, the Largest Planet
7. The Science Fair Mystery
8. An Astronaut Tells the Facts About the Moon
9. The Year I Felt Like an Alien
10. Who Turned Off the Sun?

Answers: Top shelf: 2, 4, 7, 9, and 10; bottom shelf: $1,3,5,6$, and 8

## Main Idea

Sometimes when you ask your child what a book, movie, or TV show was about, he or she might talk about one detail-a detail that has little to do with what happened in the rest of the story. Other times, your child might retell the whole story. That's great that your child can remember details so well and show his or her comprehension and memory skills. However, there are other times when your child needs to be able to pick out just the most important part.

It can be hard for children to identify the main idea. Usually, this is a skill that they practice only at school. How many times in everyday life do you really ask, "What was the main idea of what happened while you were at your friend's house?" or "Tell me only the most important thing about your soccer tournament."

To correctly identify a main idea, your child needs to be able to recognize when an author states the main idea. When the author doesn't state the main idea directly, your child needs to be able to figure out the main idea by picking out important details.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- TV episode guide
- family photos or magazine photos
- paper
- pencil

Directions: Read the following poem. Then answer questions 1-4.

## Cleaning Day

I'd looked forward all week
to a fun Saturday, but Mom said, "Clean your room before you can play."
"Fold your clean clothes,"
my dear mother said.
"Pick up the toys, and make your bed."
"Get the puzzle pieces
and games off the floor, put the books on the shelf, hang your backpack on the door."

I cleaned, picked up, folded, and put away as fast as I could.
And now I have to admit,
my room looks really good!

1. Which of these is the main idea of the poem?
A. It was Saturday.
B. I had to make the bed.
C. I had to clean my room before I could play.
D. It was time to fold all of my clean clothes.
2. Which of the following is a detail from the poem?
A. My backpack was on the bed.
B. There were games on the floor.
C. My mom washed my clothes.
D. I wanted to play soccer.
3. What are three details that tell how the room must have looked before it was cleaned up?
4. What is this poem mainly about? Use your own words.


## (A) Answers for this page:

1. C

ㄹ. B
3. An A+ answer: "Before the room was clean, there were clothes to be folded, and the bed was not made. Puzzle pieces and games were on the floor. Toys needed to be picked up, and books needed to go on the shelf. Also, the backpack was not hung up."
4. An A+ answer: "This poem is about a kid who had to clean up their room before playing. In the end, the room looked good."

Did your child get the correct answers? If so, ask your child to write another stanza for this poem. Make sure your child includes details that support the main idea that the kid in the poem had to clean their room before playing, such as a detail about playing a game once the room was spotless.

Did your child get any of the answers wrong? If so, ask, "Why did you pick that answer?" Often, kids at this age have trouble choosing which idea is the most important. Your child may recognize that all of the choices in question 1 included details from the poem. But, it could be hard to choose which is the main idea. Help your child by saying, "All of these contain details from the poem. Which one best tells what the whole poem was about?"

## Watch Out!

Third graders may confuse main idea and summary. Main idea is the one most important idea that the whole passage is mostly about. A summary retells the most important ideas in a few sentences. Help your child find the main idea by looking for one sentence in the passage that tells the most
important idea. Often, this is in the first or last sentence, although it could be anywhere in the passage. At times, the main idea is not directly stated. In this case, ask your child to tell you the most important idea in only one sentence.

## What to Know...

In school, your child may hear main idea referred to as the "big idea." Both mean the same thing. What matters is that your child recognizes the most important idea in a passage.

Review these skills with your child this way:

- A main idea is a statement of what a passage is mostly about. Often, an author states the main idea in the first or last sentences of the passage. An author may also choose not to state the main idea directly, in which case the reader has to infer the main idea of the passage.
- Details are bits of information in a passage, sometimes given in a word or a phrase. Regarding a main idea, a supporting detail is a detail from the passage that supports the main idea. Sometimes, there are details in a passage that contradict the main idea.

Your child might use details to figure out the main idea of a ripped set of instructions.


## Explain to your child that the first and last sentences are missing. Ask your child to write a first sentence and last sentence in his or her own words.

Check out some possible main ideas.


## Watch Out!

Sometimes there are details in a passage that don't support a main idea. Ask your child to identify the details that don't support the main idea that cleaning your room is quick and easy. Make sure your child sees that the details "a little elbow grease" and "unless your room is really dirty" don’t support the main idea.

Your child will need to organize the main idea and details when writing research reports or book reports. Using index cards can help. Discuss your child's favorite book or movie. Write ideas about the book or movie on separate index cards. Then, work together to group cards together that support certain main ideas. Organize the cards with details under the correct main idea. Show how the cards and ideas can then be used to plan writing the report. Your child can also do this on the computer.

## Third Graders Are...

Some third graders may have a limited attention span. To keep your child's interest, practice skills several times, but keep each session relatively short. Not only is repeated practice over time an effective way to learn and reinforce skills, it also keeps your child from getting bored or distracted if a "study session" lasts too long.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: TV episode guide
Number of players: 2 or more
Think about a TV show all the players have seen this week. Each player should decide on the main idea of the show
(don't share). Find the episode in the TV episode guide.
Read what it says about the show. Each player that came up with a main idea similar to the one in the guide gets a point. Now, play again by coming up with the main idea of a different show. See who earns the most points.


Type: Reading/Writing
Materials needed: photos of your family or from a magazine, paper, pencils
Number of players: 2 or more
Choose a photo. Work with the other players to come up with a main idea for the photo. For example, if it is a photo from a birthday party, you might say, "Everyone had a great time at the birthday party" as the main idea. Then, each player has to write down one detail that supports the main idea (for example, "The kid is smiling in front of the cake"). Next, each player has to write down one detail that doesn't support the main idea ("The kid in the background got cake in his hair and isn't smiling"). Finally, share your details with each other.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Kim wrote what she did over the weekend. For each day, she wrote one main idea, a few supporting details, and one detail that doesn't support the main idea. On a piece of scrap paper, circle the main idea for each day. Cross out the detail that doesn't support the main idea.

## Saturday

We had fun playing football at the park.
My brother was quarterback.
We used my football.
We thought about playing basketball.

## Sunday

We played four board games.
Tomorrow, it might be sunny.
We watched a movie.

It was a rainy afternoon, so we stayed inside.

Answers: Saturday—Circle "We had fun playing football at the park," and cross out "We thought about playing basketball." Sunday—Circle "It was a rainy afternoon, so we stayed inside," and cross out "Tomorrow, it might be sunny."

## Conclusions

When your child wakes up in the morning and notices dark clouds covering the sky and gusty winds blowing through the trees, he or she can probably figure out that there's a good chance of rain in the next couple hours. If you're having dinner at the local pizza parlor and notice a bunch of kids with party hats and balloons sitting at a gift-covered table, your child can probably figure out that someone is having a birthday party. In these cases, your child uses the obvious details to figure out a reasonable conclusion.

These same skills are used to draw conclusions while reading. To make conclusions, your child must use the details in the passage. Your child must think about what she is reading. Your child must decide what details work together to support a conclusion, and what details don't.

Practicing making conclusions means your child has to ask questions while reading and really get into the text. Not only does this mean your child will be better at making conclusions and remembering details, but it also means that your child will improve their reading comprehension skills.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- paper
- pencils

Directions: Read the following passage. Then answer questions 1-4.

## A Whale of a Tale

## How Whales Breathe

Whales are large animals. They live in the water. Some people think whales are fish, but fish breathe underwater through gills. Whales don't. Whales come to the surface of the water to breathe. Whales have lungs and breathe air, like we do.

## Wow! That's Fin-tastic!

There are many kinds of whales. The biggest is the blue whale. Blue whales can grow to be over 90 feet long. That is the height of a 9 -story building! That makes them the largest of all animals. The smallest whale is the dwarf sperm whale. They grow to only about eight-and-a-half feet long.

Whales eat tiny algae, plankton, and plants. Whales also eat small and large fish. Some whales have even been known to eat penguins!

## Whale Communities

Many types of whales live in groups. They travel and hunt in these groups. These groups are called "pods." Animals that hunt whales are less likely to attack whales swimming in pods. Underwater, whales can "sing" to other whales in their pods. This is how they talk to each other.

1. Which of the following is the best conclusion for the section "Wow! That's Fin-tastic"?
A. Whales' favorite food is plankton.
B. Whales need to eat a lot of food.
C. Whales eat different foods depending on the season.
D. Whales eats lots of different types of food.
2. Whales that swim together in groups are most likely
A. slower than whales that swim alone
B. safer than whales that swim alone
C. happier than other types of whales
D. able to breathe more easily underwater
3. Are whales a kind of fish?
4. What details support your answer to question 3?


## (A) Answers for this page:

1. D
2. B
3. An A+ answer: "Whales are not fish."
4. An A+ answer: "Fish breathe underwater, but whales have to come to the surface of the water to get air. Fish breathe through gills, but whales breathe air into their lungs."

Did your child get the correct answers? If so, have your child point out the details from the passage that helped her come to the correct conclusions. Ask your child to explain how she used the details to identify the correct answer.

Did your child get any of the answers wrong? Maybe he made a conclusion based on his personal thoughts or opinions on whales, rather than relying only on supporting details in the passage. Review each question. For question 1, you could say, "Let's find all of the information in the passage about what whales eat. We'll underline these details and use them to answer question 1." You could also review each answer choice and point out how the wrong answer choices are not supported. For example, the passage does mention that whales eat plankton, but doesn't say this is their favorite food -so answer choice A is incorrect.

## Watch Out!

Third graders may base conclusions on personal experiences or their own imaginations, rather than relying on supporting details from the text. For example, because whales spend their entire lives in the water, have fins, and swim, your child may assume they are fish. Remind your child that
conclusions must be based on details in the text. Help them to stay focused on the information in the passage by asking questions such as, "Which details helped you come to that conclusion?" or "What part of the story supports what you said?"

## What to Know...

Your child might hear the terms detail and conclusion only during reading class in school. Help your child feel more familiar with these terms by using them at home and in a variety of situations.

Review these skills with your child this way:

- A conclusion is an idea or thought based on details in a passage.
- Details are bits of information in a passage, sometimes given in a word or phrase. When you make a conclusion about a passage, you base it on the details in the passage.

Your child may make more conclusions outside of school than he or she realizes. Imagine that you and your child find the following description and diagram at an aquarium or marine park while on vacation.

## Beluga Whale

Beluga means "white one" in Russian. They don't eat plants or algae like some other whales. They live in pods of about 10 belugas. At times, several pods may travel together. This can mean that there are between 200 and 10,000 members in their group.


Ask your child to describe what conclusions she can make based on the passage and the diagram.

Most third graders can use the details in the passage and diagram to make these conclusions:

- The beluga is white in color.
- They eat only other fish and ocean animals.

Children struggle when they draw conclusions that are not supported by the details in the text or diagram. As a result, students may come up with incorrect conclusions like these:

- The beluga is a fish.
- Beluga whales live only off the coast of Russia.
- Belugas live only in marine parks.

> Third Graders Are ...
> Third graders sometimes have a hard time remembering lists of related details. Play this game to give your child practice. Say a sentence, such as, "I looked in Grandma's treasure chest and saw an (item beginning with 'a,' such as 'apple')." Then, ask your child to repeat what you said and to add an item beginning with the next letter. He might say, "I looked in Grandma's treasure chest and I saw an apple and a basket." Continue taking turns, seeing how far through the alphabet you can get before making a mistake. Praise your child for his efforts and for improvements in listening skills.

## On Your Way to an "A" Activities



Type: Active
Materials needed: none

## Number of players: 2 or more

Play "20 questions." Think of an object, an animal, a type of food, or something else. Then, another player can ask you 20 "yes or no" questions. You can answer only "yes" or "no" to the questions. The other player needs to gather details by asking questions to figure out what you have in mind. For example, if you are thinking of an octopus and the player
asks, "Does it have 2 legs?" you would say "no." Once the other player correctly identifies what you had in mind, switch roles.


Type: Game/Competitive
Materials needed: paper and pencils
Number of players: 2 or more
Play the game "Charades." Think of a person you all know. Write the person's name on a piece of paper and list details that would show who the person is. Then, "perform" those details, acting like the person-no talking! The other players have to guess who the person is. Once they have guessed correctly, switch roles.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Read the conclusions and details below. On a piece of scrap paper, circle two details that support each conclusion. Then, cross out the detail that does not support each conclusion.

1. Whales do not stay underwater all the time.
A. They come to the surface for air.
B. They poke their heads out of the water.
C. They eat underwater.
2. Whales "sing" to help each other.
A. They sing to talk to friends.
B. They sing to the fish they eat.
C. They sing to their babies.


Answers: 1. Circle A and B, and cross out C. 2. Circle A and C, and cross out B.

## Plot and Setting

## T

here are times when your child can talk and talk, telling you all about-and suddenly your child plunged into a litany about dinosaurs, car chases, and a hilarious scene involving cheese. At the end, you still can't put your finger on exactly what happened in the movie. Your child has told you nearly everything, yet not the few key details you were looking for.

When figuring out the plot or the setting of a story, your child needs to be able to hone in on specific details. To figure out the setting, your child has to be able to pick out the details that describe where and when the story took place. To figure out the plot, your child needs to know which details are the most important (not just the funniest, the grossest, or the ones involving chase scenes).

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## \&

Here's what you'll need for this lesson:

- paper
- pencils
- shoe box(es)
- colored markers
- colored paper


## - clock or timer

- art supplies, such as glue, scissors, felt, scrap material, leaves, cotton, pipe cleaners, sparkles, etc.

Directions: Read the following story. Then answer questions 1-4.

## The Middle of Nowhere

Vince and his mom decided to take a bus to their favorite restaurant-Sippin' Savory Soups. They got to the bus stop just as a bus was pulling away.
"Wait!" his mother yelled. Luckily, the bus driver stopped. Vince and his mom ran onto the bus.

Vince watched his neighborhood pass by through the window. After they had been riding for a while, Vince started to see unfamiliar places.
"Where are we?" Vince asked. His mom said that they must have taken the wrong bus.
"We're in the middle of nowhere!" Vince cried. "What if we never find our way home?" His mother spoke to the driver, and Vince tried not to worry. Just then, they passed a playground. Kids were playing on a shiny, curvy slide. Vince had never seen one like it.

Vince and his mom got off at the next bus stop and took a new bus. In no time, they had arrived at their soup restaurant
in time for dinner. The restaurant was full of people sipping soups.
"Happy to be in a place you know?" his mom asked.
"Yes," Vince said, "but can we go to the playground with the curvy slide sometime?"
"You mean the one in the middle of nowhere?" his mother asked. They laughed and then hungrily sipped their favorite soups.

1. What is the most important thing that happened in the story?
A. The bus was pulling away from the bus stop.
B. Many people were in the restaurant.
C. Vince and his mom were hungry.
D. Vince and his mom took the wrong bus.
2. Where is Vince when he sees the curvy slide?
A. at Sippin' Savory Soups
B. on the wrong bus
C. at a playground
D. at home
3. At the end of the story, where was Vince?
4. What details in the story tell you where Vince was at the end?

## Excellent Job!



1. D
2. B
3. An A+ answer: "Vince was at Sippin' Savory Soups."
4. An A+ answer: "The story says that Vince and his mom saw a lot of people in the restaurant and they were hungrily sipping their own soups."

Did your child get the answers correct? If so, ask your child to explain how he or she arrived at one of the correct answers. If this poses difficulty, guide your child to the paragraph that provides a clear clue to the correct answer. You can also emphasize that setting is both the time and place where something happens. Ask your child to identify when Vince and his mom got to the restaurant.

Did your child get any of the answers wrong? If so, ask your child to rephrase what the question is asking. Make sure your child understands the question.

## Watch Out!

Third graders sometimes confuse where a character is with where they are. For example, for question 2, your child might think Vince was at home when he saw the slide because your child was at home when he or she read about Vince. Reword the question, and ask your child, "Where is Vince in the story when he sees the curvy slide?"

## What to Know

Children might get overwhelmed when asked to pick out certain details from a story. So much happened! But this is a skill your child can develop with practice.

Review these skills with your child this way:

- The plot is the series of events in a fictional story.
- The setting is the time and place in which the events in a fictional story take place.

When figuring out the plot of a story, your child needs to identify the important events that take place.

## Important Events

- Vince and his mom took the wrong bus.
- Vince and his mom changed buses.
- Vince and his mom had soup.

> Ask your child if the story would
> have changed a lot or a little if Vince and his mom had not changed buses. Make sure your child understands that changing important details would change the story a lot.

## Less Important Events

- Vince's mom yelled, "Wait!"
- People ate soup at the restaurant.
- Vince asked to go back to the playground.
Ask your child if the story would
have changed a lot or a little if Vince
didn't ask to go back to the
playground. Make sure your child
understands that changing less
important details would not change
the story much.

In the story, Vince was in a few places.


> Ask your child to identify where Vince is in the first picture. Then, ask your child to identify where Vince is in the column of three pictures. Finally, ask your child to identify where Vince is in the last picture. Make sure your child can name that Vince was at a bus stop, on buses, and at a restaurant.

Your child might get confused by where Vince is and what Vince sees. Point to the column of three pictures in the middle. Ask, "Vince sees a playground. Is he on the playground or is he in a bus?" and "There's a restaurant seen in the bus window. At this moment, is Vince in the restaurant or on the bus?"

Drawing pictures is a great way to study. Ask your child to draw a small picture that shows what happened in each paragraph of the story. By drawing pictures, your child represents details in an easy-to-use way. Your child can look at these pictures to determine the most important events and the setting.

## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: shoe box(es), glue, scissors, colored markers, colored paper, felt, scrap material, leaves, cotton, pipe cleaners, sparkles, etc.
Number of players: 1 or more
Make a list of different settings. Use the following examples or come up with your own: walking to school in the rain, nighttime in your bedroom, a picnic in the park in summertime. Stand the shoe box on its side so that the open part faces you. Using your arts and crafts supplies, create a diorama that shows the setting of your choice. Be sure to provide clues that show both time and place. You can use cotton to make clouds or snow, leaves and pipe cleaners to make trees, and sparkles to make stars for nighttime settings.


Type: Speaking/Listening
Materials needed: a clock or time
Number of players: 2 or more
Think of a story. It can be a story from a book, a movie, or a TV show. Tell the story to the other players in 3 minutes or less. When you are done, the other players have to try to tell the plot of the story in 1 minute or less. Take turns being the storyteller.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Go back to the story "The Middle of Nowhere" on this page.

1. Read the beginning of the story again. Then, write only the most important event from the beginning of the story.
2. Now, read the middle of the story again. Write only the most important event from the middle of the story.
3. Now, read the end of the story again. Write only the most important event from the end of the story.

Answers: 1. Vince and his mom decided to go to Sippin' Savory Soups and almost missed the bus. 2. Vince and his mom realized that they were in the wrong place because they took the wrong bus. 3 . Vince and his mom took another bus and got to the restaurant.

## Character

For third graders, trying to describe a character in a story might seem like a vague and slippery task. When asked which details best identify a character, your child might think any number of details could apply equally well. Your child can learn to identify and describe characters by looking for clues to how the character acts, thinks, and feels in a story.

Chances are your child already knows more about characters than he or she realizes. Every day, your child encounters people and sizes them up. On the bus, your child might see a boy wearing a baseball jacket for a certain team. "I wonder if he likes that team?" your child ponders. The boy's behaviorthat he wears a team jacket-provides a clue that your child uses to make an initial guess about what the boy is like. Later that day, your child hears the boy talking about watching his favorite baseball team. Now your child has observed the boy's behavior on two separate occasions. Using many clues helps your child accurately have a sense of characters.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- old magazines and newspapers
- heavy paper or cardboard
- crayons or markers
- scissors
- glue
- paper
- pencils

Directions: Read the following story. Then answer questions 1-4.

## The Perfect Crazy Summer Fort

As soon as the school year was over, Sebastian and Carlos decided to build a fort. They built it in Carlos's backyard. They worked all afternoon. They also made a flag out of a pole and a purple polka-dotted scarf.
"This is the most awesome fort ever!" Carlos exclaimed proudly. Sebastian had a very glum look on his face.
"We shouldn't have painted the door green," Sebastian said. "I have to fix it."

If Carlos didn't know Sebastian, he might have thought his friend was mad at him. However, he knew his friend very well. Sebastian was never happy right away with things he made. He always worked to make things better. Carlos liked that his friend worked so hard, but he knew they wouldn't have enough time to finish today.

When Sebastian's older sister came to pick him up, Sebastian was still busy painting the door red and fixing things. He had started to make a sign that said "Our Fort."
"Sorry, Carlos," Sebastian said. "I was hoping to finish before I left."
"It's okay, Sebastian," Carlos said. "I think it would be fun to work on the fort and play in it all summer long."

That made Sebastian grin from ear to ear. "Awesome!" he said. "So we can spend the summer making the most perfect crazy fort ever!"

1. Sebastian can best be described as a person who
A. likes to paint
B. wants everything to be perfect
C. just wants to have fun
D. often gets angry at his friends
2. Sebastian paints the door red because
A. he thinks a red door is better than a green door
B. he is angry with Carlos for painting the door green
C. he wants to make Carlos proud of him
D. he does not want to play with Carlos
3. How does Carlos know that Sebastian is not mad at him?
4. What is one way that Carlos and Sebastian are not alike?


Excellent Job!


## (A) Answers for this page:

1. B
2. A
3. An A+ answer: "Carlos knows that Sebastian wasn't angry because he's known Sebastian for a while. He's seen Sebastian work to make things better before."
4. An A+ answer: "Carlos is happy with the fort, but Sebastian is not."

Did your child get the answer correct? If so, make sure your child understands Sebastian's character. Ask your child to point out all the details about Sebastian, including what he says and what he does.

Did your child choose any of the wrong answers? For question 1, your child might have chosen answer choice A because Sebastian painted the door. Ask your child, "When Sebastian painted the door again, was that because he liked to paint or because he wants the fort to be perfect?" Ask your child to underline the things that Sebastian says, does, feels, and thinks in the story. Then, point out the correct answer and ask, "Can you see how this answer fits the details you underlined about Sebastian's character?"

## Watch Out!

Children might feel that a question is unfair because more than one answer could describe a character. For example, with question 2, your child might have guessed answer choice C because Sebastian apologized to Carlos for not finishing. Tell your child that the best answer is supported by the details in the story. While answer choice C may seem possible, there aren't any details that support it. Sebastian says, "We shouldn't have painted the door green," which is a detail that supports answer choice A.

## What to Know...

Your child works to understand characters all the time: when reading books, when watching movies, and even when hanging out with friends.

Review this skill with your child this way:

- Characters are the people whose actions, ideas, thoughts, and feelings a passage tells us about. Characters aren't always human. Sometimes animals, plants, or parts of the setting may be characters in a passage. Authors reveal character through details about the character, including what the character says and how the character behaves.

Your child thinks about characters when reading a list of TV shows for kids.
Wiggly and Pals. Come join the adventures of Wiggly the Worm as he digs his way through Earth and learns about different places. This time, he digs under the sea, but Wiggly can't breathe underwater. Will Wiggly go back or figure out a way to explore the ocean?

Treehouse Tales. One day, Sarah could suddenly speak with the trees. Ever since, she and her classmates have worked to save the rain forests. This time, something mysterious is hurting her leafy friends. The fun-loving Sarah gets down to some serious business.

Stormcloud Thunderstrike. Devon sees the Thunderstrike symbol in the clouds. Whenever this happens, Devon always rushes to save the city. This time, he's frozen with fear. What kind of danger could be causing Devon to freeze?

> Ask your child to underline as many characters as she can find in the descriptions of the shows. Remind her that the characters can be humans, plants, or animals.

Your child uses what he or she knows about characters to understand stories, movies, and books. A character might be happy in one scene and angry in the next. Does this make the character a happy person or an angry person? Your child needs to look for clues to how a character feels, thinks, and acts throughout a story.

Most third graders might describe the characters in the following ways:

- Wiggly is adventurous. He likes to explore.
- Sarah is hardworking and playful.
- Devon has courage and is helpful.

> Ask your child to describe the characters using the details in the television show descriptions.

Some third graders might describe the characters based on one detail instead of on many details. If your child described the characters based on one detail, he or she may have mistakenly described them in these ways:

- Wiggly doesn’t like a challenge.
- Sarah is starting a new business.
- Devon is cold.

> If your child made a mistake and based her description on just one detail, ask her to think about how the character acts overall.


#### Abstract

Third Graders Are . . . Kids in third grade sometimes assume that everyone thinks and feels the exact same way that they do. So, when describing a character, they might describe a character based on their own feelings and thoughts in a similar situation. Look for opportunities to show your child that sometimes people have thoughts and feelings that differ from your child's thoughts and feelings.


## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: old magazines, newspapers, heavy paper or cardboard, crayons or markers, scissors, glue Number of players: 1 or more

Draw a person's face on heavy paper or cardboard. Draw a thought balloon coming out of the person's mouth, like in a cartoon. Next, cut out parts of people's faces from magazines, and/or newspapers. Arrange these parts on the blank face to make a new face. What kind of a character is this? Ask yourself: What is something that only this character
might say? Cut out the letters and words in the magazines, catalogs, and newspapers. Arrange them in the thought bubble. When you've made a few different faces, you can glue your pieces down and hang up the portrait you've made!


Type: Game/Competitive
Materials needed: paper and pencil
Number of players: 3 or more
Each player makes a list describing a person all the players know. Each player takes a turn reading aloud from their list. The others guess who is being described. The first player to guess correctly gets a point. Keep playing until all the players have a turn reading their lists. Then, count up the points to see who wins!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Sebastian went back to Carlos's house. It was raining, so they made cookies instead of working on the fort. Here are some of the things they said. Look at what was said to the character and choose who you think said it.


Answers: Sebastian—A and D; Carlos—B and C

## Putting Events in Order

Most third graders benefit from structure, both at home and at . Tour child is probably used to structure-rules for playing in the house, steps for crossing the street, a ritual for brushing their teeth and washing their ears, and so on. Kids are used to being told what to do, when, and how. Instructions often come as a sequence of tasks (sit down, open your textbook, turn to this page).

But as you know, not everything in the world is so clear-least of all in the stories, books, and newspaper articles we read.

Where reading is concerned, it's important for your child to learn how to identify and sort out a sequence of events from a collection of details in a text. Your child needs to practice being able to determine the sequence of events on his or her own.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- a cookbook or magazine with recipes
- newspapers
- scissors
- pencils
- paper

Directions: Read the following recipe. Then answer questions 1-4.

## Egg Salad

Ingredients:
6 large eggs
2 tablespoons mayonnaise
1 teaspoon mustard
Salt and pepper, to taste Bread

1. Put the eggs in a pot. Cover with cold water. Ask an adult to boil the eggs for 10 minutes. Then, ask an adult to drain the hot water and put the eggs in a bowl.
2. Cover the eggs with cold water. You can even add ice.
3. After the eggs have cooled, peel them carefully. Throw away the eggshells. Rinse the eggs to make sure no pieces of eggshell are left on them.
4. Mash the eggs with a fork.
5. Add the other ingredients. Mix. Taste the mixture using a clean spoon, then add more salt or pepper if you like.
6. Now you're ready to make sandwiches! Spread the egg salad on bread. You can save the rest of it for later. Just
put it into a bowl with a cover, and keep it in the refrigerator!

7. What should you do before peeling the eggs?
A. Mash them with a fork.
B. Cool them in cold water.
C. Add the mayonnaise.
D. Put them in a pot of water to boil.
8. What should you do after adding the other ingredients?
A. Rinse off the pieces of eggshells.
B. Put it into a bowl with an airtight lid.
C. Taste with a clean spoon.
D. Mash them with a fork.
9. What is something you should do before peeling the eggs?
10. What is something you should do after making sure the egg salad tastes good?

## Excellent Job!



1. B
2. C
3. An A+ answer: "A parent should cook them, and I should cool them in a bowl of water and ice."
4. An A+ answer: "I should make a sandwich or put the egg salad in a covered container in the refrigerator."

Did your child get the answers correct? If so, ask your child to explain why the wrong answers are incorrect.

Did your child choose any of the wrong answers? If so, say, "Did you think about what would happen if you tried to peel the eggs at another point in the recipe?" Make sure your child has thought about how important it is to follow the sequence of events as laid out in the recipe.

## Watch Out!

Sometimes third graders get confused about the order of events when certain details are talked about in different ways in a passage. For example, in the ingredients list, your child can see "mayonnaise" listed. Later, the recipe says to add the "other ingredients," which includes the mayonnaise. Did your child become confused about when to add the mayonnaise because it was referred to as "other ingredients"? If so, ask your child to act out the steps in the passage or imagine acting out the steps. This can help your child identify areas of confusion and clarify.

## What to Know

Sometimes kids have problems inferring the sequence of events. They're used to being told what to do next and reading stories that clearly say the order of events.

Review this skill with your child this way:

- Sequence is the order of ideas and events in a passage. The sequence in which events are presented in a passage may not be the same as the order in which the events described actually took place. Your child can describe sequence using the words before and after.

Today, Tanya is happy. She is happy because she remembered that her brother's birthday is tomorrow. Now she and her father will have time to bake him an excellent cake. Last year, Tanya didn't have time to make a cake because she forgot all about his birthday.


Events in the order the passage talked about them:

- Today, Tanya remembered that her brother's birthday is tomorrow.
- She plans to make him a cake.
- She didn't make him a cake last year.
- She forgot her brother’s birthday last year.

Events in the order they happened:

- Tanya forgot her brother's birthday last year.
- She didn't make him a cake last year.
- Today, she remembered that her brother’s birthday is tomorrow.
- She plans to make him a cake.


## E Study Right

Research shows that children who grow up in homes where the family spends time reading are more likely to have positive attitudes about reading. Think about what you like to read and see if you can make the time for reading on a weekly basis. Talk to your child about what you're reading, why you're reading it, and what you like or dislike about it.

## On Your Way to an "A" Activities



Type: Active
Materials needed: pencils and paper
Number of players: 2 or more
Play a treasure hunt game. Each player picks something that can be found nearby. Then, each player writes the name of the thing on a piece of paper and instructions for how to find the thing. For example, if you're playing in a house, you might pick a hairbrush. Then, you'd write "Hairbrush" and steps like "go down the hall, open the door on the left to my bedroom, go to the table." Do this for 4 more things that can be found nearby. So in the end, each player should have picked 5 things and written 5 sets of instructions. Next,
players trade instructions. Each player follows the instructions to find the things. Who wrote the best instructions? Who was able to find the most things?


Type: Speaking/Listening
Materials needed: a cookbook or magazine with recipes, pencils, paper
Number of players: 2 or more
Each player picks a recipe and rewrites it, mixing up the order in which things are prepared. Players then exchange mixed-up recipes and rewrite the other's mixed-up recipe, but list what to do in proper order. As the player makes the list, the recipe writer gives hints, saying things like, "You beat the eggs after melting the chocolate, but before you add the flour."


Type: Reading/Writing
Materials needed: a newspaper and scissors
Number of players: 2 or more
Play "What Happened?" Each player should find a story in a newspaper. Players should not read their own stories. Instead, players should read each other's stories and then return them. Next, cut your story into parts, making sure to cut around the words. Then, mix up the pieces of paper. Try
to put the story back together. When you and the other player are done, check each other's work. See if all the events are in the correct order!


Type: Game/Competitive
Materials needed: pencil and paper
Number of players: 2 or more
Play "Fast forward/Rewind." Write a paragraph describing something you did. Write down each step as soon as it pops into your head, but not in order you did it. Use the phrases "before that" and "after that" to describe when you did each step. For example, you could write. "I took a bath. Before that, I did homework. After my bath, I put on my pajamas." Hand your paragraph to another player. The other player needs to figure out the actual order of the steps you took. Then, the other player should act out the correctly ordered steps. Take turns. Now, another player should write a paragraph. Then, you can figure out the correct order and act out the paragraph.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Julie and her older brother plan to surprise their parents with a huge pancake breakfast. They wrote a list of everything they have to do, but the dog chewed it.

Directions: Help them put the list back in order. Write the letter of each step in order below.


Answers: 1. E; 2. C; 3. B; 4. D; 5. A

## Problem and Solution

Astory's problem is not always easy to spot for your third grader. "This is how the problem got solved." Because of this, a third grader might think that there are many problems in a story, or that there are no problems in the story at all.

Your child needs to know that all stories have a central problem. Problems often come up between two characters in a story, but there are other kinds of problems too. A problem can occur in a story when a character comes into conflict with an obstacle in nature or society. In some stories, like mysteries, the problem is often that a character does not know something that is important to solving a case. The case (and the problem) is solved when the character finds out the thing that he or she didn't know at the beginning of the story. All stories, whether they are mysteries or not, contain details that your child can use as clues to identify the story's problem and to understand its solution.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


- superhero comics
- crayons or markers
- art supplies

Directions: Read the following story. Then answer questions 1-3.

## Race Against the Rain

Zelda and Paul went camping with their mom and dad. They brought along their dog, Doodad. The family had so much fun hiking and playing in the woods all day that they didn't notice the storm clouds gathering in the sky. At last they realized that if they didn't act soon, they were going to get very, very wet. They rushed back to their campsite and set to work.

Each member of the family helped. Paul put away the leftovers from lunch. He checked the backpacks to make sure there were enough warm clothes for everyone to take into the tent. He gathered flashlights and a lantern. Zelda raked pine needles into a pile, then spread them out evenly to make the ground soft in the place where the tent would go. Then, Mom, Dad, Zelda, and Paul worked together to put up their tent. Even Doodad did his part. He danced around in circles, barking, reminding everyone to hurry. The rain is on its way! The rain is coming!

Finally, after all the backpacks and supplies had been put into the tent, they all crawled inside. Just as Paul zipped the tent flap closed, they heard a thunderclap. A few seconds
later, it started to rain outside. Dad unrolled the sleeping bags. Zelda turned on the lantern. Then, they took turns telling stories. After that, no one said anything for a while. They just listened to the rain going thwap! thwap! thwap! against their tent. Then, one by one, Paul, Zelda, Mom, Dad, and Doodad fell asleep.

1. The problem in this story is that
A. they realize they shouldn't have brought Doodad
B. Paul and Zelda both want to put up the tent
C. Zelda is afraid of rainstorms
D. it is going to rain and the campsite isn't ready
2. The problem in the story is solved because
A. everybody takes turns telling stories
B. Doodad warns them that it is going to rain
C. everyone rushes to get the campsite ready
D. they leave the campsite and go to a motel
3. How do you know that the problem is solved at the end of the story?


## (A) Answers for this page:

1. D
2. C
3. An A+ answer: "At the end of the story, the family is able to get inside the tent before it starts to rain."

Did your child get the answers correct? If so, ask your child to tell you which details in the story helped lead to the correct answers. This will reinforce for your child that a story's problem and solution can always be found in a story's details.

Did your child get any of the answers wrong? If so, ask your child to point out a detail in the story that led to that answer. For question 2, your child may have guessed that the problem in the story was solved because everybody took turns telling a story inside the tent. Say, "It's true that after the problem was solved, everybody told stories, but does telling stories help keep them from getting wet?"

## Watch Out!

Third graders sometimes follow their likes and dislikes instead of paying close attention to the details of a passage. For instance, if your child is frightened by rainstorms, he or she may have thought the answer to question 1 was that Zelda was afraid of rainstorms-even though this isn't supported by the details in the story. Or, for question 2, if your child doesn't like to camp, he or she may have picked the answer choice saying that the family solved the problem by going to a motel. Remind your child that the correct answer is supported by the details in the passage.

## What to Know...

Your child can learn to identify problems in a story by looking for details that express conflict. Your child might describe problems and conflicts in stories as "when things got hard," "when the characters didn't know what to do," or "when I didn't know what would happen next."

Review this skill with your child this way:

- A problem in a passage may be between a character and another character, between a character and society, between a character and nature, or between a character and himself or herself. Sometimes there is a problem between opposing groups of characters.

With your child, read this story in which different problems and solutions occur.

Drey and Rachel wanted to play, but it was too hot.
"I wish we had some shade in our backyard," Drey said. "Yeah," Rachel agreed. "Someplace nice and cool."

So Drey and Rachel decided to make their own fort. They knew they needed sticks and lots of fabric. Rachel searched for sticks, and Drey searched for fabric. Rachel found sticks in her neighbor's yard. She asked him if she could use them, but her neighbor said no. So, Rachel found some old broomsticks in the basement. Drey knew they kept extra fabric and rags in the house, but he couldn't remember where. Instead, he found some old bedsheets. The broomsticks and the bedsheets worked perfectly! They made a large and shady fort
-a perfect place to play games in the summer heat!

## Ask your child to identify the problems in this passage.

Most third graders can identify the following problems and solutions in the story:

| Problem | Type of Problem | Solution |
| :---: | :---: | :---: |
| It was too hot to <br> play | Character vs. Nature | Drey and Rachel <br> decided to make a <br> fort |
| Rachel couldn't <br> use the sticks she <br> found | Character vs. Character | Rachel used <br> broomsticks |
| Drey couldn't <br> remember where <br> the fabric was | Character vs. Self | Drey used old <br> bedsheets |

> Ask your child to give you examples of different types of conflicts from his or her life or from stories in books, magazines, or movies.

## On Your Way to an "A" Activities



Type: Active

Materials needed: pencil, paper, superhero comic books Number of players: 4 or more

Play "Superheroes, Superhumans!" Form teams of 2 or more players. Each team picks a superhero and a problem. You can look for one in a comic book. Now, each team acts out the problem and acts out how the superhero solved the problem. Then, the team has to act out a way a regular human could solve the problem without superpowers. For example, if Superman saw a person stuck on the top of a mountain, he might fly to save the person. A regular human might have to climb the mountain or take a helicopter! Each team takes a turn acting out a problem and solution with a favorite superhero!


Type: Arts and Crafts
Materials needed: paper, crayons or markers, art supplies Number of players: 2 or more

Play "Crazy Problems." With the other players, make up a story by listing crazy problems. For example, you might say, "I went to the beach, but then it started to snow." Next, another player might add to the problem by saying, "The snow turned to ice." Then, another player might make the problem even crazier by saying, "The ice formed a big ice mountain." Make the story as crazy as you can. Then, work together to draw all the problems in the story. (If you want to start out with a well-known story, try it with "The old lady who swallowed a fly.")

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Reread "Race Against the Rain" on this page. The family went camping, but then it was going to rain. Look for ways that the family dealt with this problem. Then, write the ways they solved the problem for each line below.


Answers: Paul put away lunch. Paul checked for warm clothes. Paul got flashlights and a lantern. Zelda raked pine needles. Everyone put the tent together. Doodad reminded everyone about the rain.

## Comparing and Contrasting

Say two friends are eating dessert. One friend loves ice cream for be able to say that the two friends are different because they like different kinds of desserts.

But, given the same information, could your child notice how the two friends are alike? Perhaps after thinking about it, your child might realize that both friends are eating dessert and love sweets!

Many third graders can often identify things that are obviously alike and different in their reading. However, facing longer and more complex texts, students may have a tough time sorting out which similarities and differences are important within the context of a story. Your child needs to practice working with obvious and subtle similarities and differences.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- pencil
- paper
- magazines or newspapers
- alarm clock or timer
$\square$

Directions: Read the following passage. Then answer questions 1-4.

## Two Explorers

Sue Hendrickson is an American woman who will go anywhere in the world for an adventure. Most of all, she loves to explore the ocean. One of her first jobs was to find tropical fish for pet stores and aquariums. Another job was to dive for beautiful shells on the ocean floor. Now, Sue goes on diving missions to investigate ships and ancient cities that have sunk to the bottom of the sea. One time, Sue worked with a team of divers to learn about a 400-year-old Spanish ship. They found many silver and gold coins and nearly 1,000 Chinese pots. On another mission, Sue went diving in Egypt to explore a sunken city. She found buildings, bridges, coins, vases, and other treasures that were thousands of years old. Sue is able to learn about the way people used to live by studying the things she finds underwater.

Alexandra David-Néel was an explorer of a different kind. She was born in France. Her curiosity about the people and cultures of Asia led her far from home. She traveled to India, Japan, and even to the highest city in the world. That city was Lhasa, the capital of Tibet. Tibet is a small state high in the Himalaya Mountains. These are the tallest mountains in the world. At the time that Alexandra went there, outsiders
were not allowed into Lhasa. It was known as a "forbidden" city. It took Alexandra a year to prepare for her trip.

She had help from a boy named Yongden. Alexandra and Yongden disguised themselves in order to be allowed to enter Lhasa. When they got into the city, they watched and learned all about the way people lived in Lhasa. After staying for two months, Alexandra returned to France and wrote a book about her adventure.

1. How are Sue and Alexandra alike?
A. They both traveled to other countries.
B. They both went to "forbidden" cities.
C. They both were born in France.
D. They both climbed the Himalayas.
2. How are Sue and Alexandra different?
A. Alexandra prefers to explore the ocean.
B. Alexandra had to wear a disguise.
C. Sue likes to go on adventures alone.
D. Sue never climbs mountains.
3. What is one important way that Sue and Alexandra are alike?
4. What is one important difference between Sue and Alexandra?

## Excellent Job!



## (A) Answers for this page:

1. A
2. B
3. An A+ answer: "Sue and Alexandra are both curious and explore faraway places to learn about other people and cultures."
4. An A+ answer: "Sue learns about people by investigating ancient cities and ships, and Alexandra watched the way people live to learn more about them."

Did your child get the answers correct? If so, ask your child to point out any other similarities and differences. For example, your child might say that Sue and Alexandra are both women and both work hard. Your child might also say that Sue is an American, whereas Alexandra is French.

Did your child get any of the answers wrong? Sometimes third graders have difficulty making sense of lots of details. Help your child organize all the details. Ask your child to write a list of descriptions about Sue on the left side of a piece of paper and then write a list of descriptions about Alexandra on the right side. Then, ask your child to circle all the similarities and underline all the differences. Talk through any instances when your child is confused.

## Watch Out!

Third graders sometimes have to use the details directly stated to develop a more subtle sense of a character or story. For example, with question 2 , your child might have mistakenly decided that Sue never climbs mountains because she usually explores the ocean. Show your child that the passage also says that Sue will go anywhere for an adventure. Explain to your child
that the passage never says she won't climb a mountain and that this detail means that she might go to a mountain for an adventure.

## What to Know...

By taking in the details in a story, your child can identify similarities and differences. Your child might start to use the words alike and different with confidence. By doing this, your child gains a deeper understanding of characters, events, and purpose in different stories.

Review these skills with your child this way:

- Comparing is noting what is alike between two or more ideas, characters, details, or events in a passage. Your child says things are "alike."
- Contrasting is noting what is different between two or more ideas, characters, details, or events in a passage. Your child says things are "different."

Sometimes your child has to think past the details provided to figure out how things are alike or different.

> After school, Mary and Joey eat snacks. Mary likes apples. Joey likes soup.

The museum has a room full of pottery from China. Some of the pottery is new, and some is very old.

Lara and Jose went to the park. Lara played on the swing set, and Jose played basketball.

For each paragraph, ask your child to identify how the characters, details, or events are alike and how they are different.

## On Your Way to an "A" Activities



Type: Active
Materials needed: none
Number of players: 5 or more
Players take turns being "It." The player who is "It" stands. The other players sit in a circle around "It." "It" should carefully study all the details of the room and the other players, and then leave the room. Then, the group changes one thing. For example, all the players could take off their shoes. Then, "It" returns and has to guess the change. As soon as "It" guesses correctly, another player can be "It."


Type: Game/Competitive

Materials needed: magazines, newspapers, pencils, paper, timer or alarm clock
Number of players: 2 or more
Find 2 pictures in a magazine or newspaper. Set a timer or alarm clock to go off after 5 minutes. During this time, each player writes a list of things that are alike or different in both pictures. After 5 minutes, the players share what they found to be alike. For each thing a player finds that no one else finds, the player gets a point. Then, the players share what they found to be different. For each thing a player finds that no one else finds, the player gets a point. The player with the most points wins the round. Play another round by using 2 new pictures.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Reread the first paragraph of "Two Explorers." Then, read the poem below and complete the exercise on the next page.

## The Find

Wandering the beach one afternoon
I come upon a tide pool-
A bowl of seaweed-covered rocks
Filled with high tide water that got left behind.
All is still as I look in.
No fish, I think, too bad, now what?
And then, a shimmer,
But not the scaly gleam of a silvery fish.
It's a golden glint, winking at me from under water.
I close my fist around the shiny thing.
It's round and smooth and heavy in my hand.
I bring it up into the light, unwrap my fingers, and see

A gold coin, old, old, old, big, lumpy, worn down by the sea.
When I gaze back into the tide pool,
I see another coin, another, and another!
It occurs to me to wonder then
What person, way back long ago
Came to leave this pile of coins here by the sea?
On a piece of scrap paper, draw the diagram below. In the left-hand circle, write details from the story about Sue on this page that are different from the details in this poem. In the right-hand circle, write details from the poem that are different from the details in the story about Sue. In the part where the circles overlap, write details that are alike.


## Cause and Effect

Chances are your child is good at identifying obvious causes and effets. If your child sees a movie in which a bathtub faucet is turned on, your child knows that the bathtub filling with water is a result.

But sometimes your child doesn't realize less obvious causes and effects. What if the next scene in the movie shows a flooded living room? One cause might be that no one turned off the bathtub faucet. A related cause might be that the person who turned it on fell asleep, was kidnapped, or simply forgot. Movies constantly jump from scene to scene and expect audiences to make the cause-and-effect relationships based just on what they see.

As your child grows up, cause-and-effect relationships may seem less and less obvious. If your child ever broke something, played football in the living room, or tried to jump off a tall object, you may have asked your child, "What were you thinking?" You know your child can sometimes get carried away by an idea without realizing the consequences-especially when those consequences aren't blatantly obvious.

So, now that your child is reading longer and more complicated stories, she's reading about more and more cases in which neither the cause nor the consequence are so obvious. It's time for her to develop her ability to recognize and connect these more subtle cause-and-effect relationships.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## $-0$

Here's what you'll need for this lesson:

- pencils
- paper
- a current newspaper
- red, blue, and yellow food coloring
- three clear glasses of water

Directions: Read the following story. Then answer questions 1-3.

## The Time Capsule

Everyone was getting ready for this year's school fair. Leo was writing a play. Darrell was making costumes for Leo's play. Kendra and Matt were planning a "How Many Jelly Beans Are in the Jar?" contest.

Gino wanted to do something special for the fair. He hoped he might get ideas for the fair, but he couldn't think of anything. So, he went to the library. He read about fairs held at other schools. "I've got it!" he exclaimed suddenly. Everyone in the library looked up from their books.

Gino decided he would make a time capsule. "A time capsule holds things from our lives. The time capsule gets put underground. Then, in 100 years, people can open it up. They can learn what it was like to be us!"

Gino set to work. First he talked to classmates, parents, and teachers. He asked them what things should go into the capsule. Gino remembered that his uncle had an old metal trunk in his garage. His uncle didn't use it. It was gathering dust. So, Gino asked his uncle if he could have it. Next, Gino asked the school custodian for help. They picked a good
place to bury the time capsule. Then, they dug a deep hole under a tree in the school yard.

Gino collected things to put in the trunk, but waited. On the day of the fair, Gino held a ceremony. He showed the crowd the things he picked out. Then, he carefully closed the trunk. Finally, the custodian lowered the trunk into the deep hole. Gino covered it up. He hoped people living in 100 years would be interested in learning about his time capsule.

1. Gino went to the library because
A. the school custodian was there
B. Darrell left a book about costumes in the library
C. he wanted to put a book in his time capsule
D. he wanted to get ideas for the fair
2. Gino held a ceremony during the fair
A. to give awards for the best project at the school fair
B. to read books about school fairs to everyone in the crowd
C. to show people what he was putting in the time capsule
D. so everyone would help dig a hole
3. What effect did Gino want the time capsule to have on people in the future?

## Excellent Job!



## (A) Answers for this page:

1. D
2. C
3. An A+ answer: "He wanted the things in the time capsule to help people 100 years from now understand what our lives are like today."

Did your child get the answers correct? If so, review question 1. Ask your child to identify the cause and the effect. You could ask, "Is Gino going to the library the cause or the effect?" Do the same for question 2.

Did your child get any of the answers wrong? If so, your child might be having a hard time reading the long answer choices. Encourage your child to mark whether each answer choice could be wrong or right. For example, read all the answer choices to question 2 . Tell your child to draw a check mark next to answer choices that could be right and to draw a line through the letter of answer choices that are probably wrong. Then, ask your child to pick the correct answer from the choices with check marks.

## Watch Out!

Third graders are used to focusing on the events in stories, but they may be unfamiliar with understanding the relationships between events. Your child may need practice making connections between events. Work with your child by pointing out events that are connected in a story and asking, "How did this event cause the other thing to happen?" For example, you could ask, "What caused everyone in the library to look up from their books?"

## What to Know...

In most stories your child reads, a cause is related before its effect. So, your child may be used to seeing causes presented before their effects in texts. But this isn't always what happens.

Review these skills with your child this way:

- The cause is the reason an event happens.
- The effect is the result of an event, feeling, or idea.

Your child needs to see the relationship between events to understand cause and effect.

Story 1: Her kite flew away and got stuck in a tree. Samantha was shocked. Just a few minutes ago, the wind had started to blow a little harder.

## Story 2: Samantha felt the wind blow harder. Her kite flew away and got stuck in a tree. Samantha was shocked.

> Explain to your child that the causeand-effect relationships in the two stories are the same. Ask your child to identify the cause-and-effect relationships.

## Third Graders Are ...

Sometimes third graders can get tangled in complicated details. Help your child boil down cause-and-effect

## On Your Way to an "A" Activities



Type: Speaking/Listening
Materials needed: a current newspaper

## Number of players: 2

Ask a friend or parent to read you the last part of a newspaper article describing a recent event. Make sure it's not an event that you already know about! Then, try to guess the cause of the event. For example, if the article is about how a court trial came out, guess what crime was committed that led to the trial. If the event describes a celebration, try to guess the reason the celebration was held. Then, have your friend or parent read the beginning of the article, and see how close you came to figuring out its cause.

## ह Study Right

Children this age sometimes speed-read stories to come up with an answer fast. Sometimes they guess the first answer that comes to mind without considering all the possibilities. Explain to your child that he or she needs to know that reading and thinking take time. Work on this by asking your child detailed questions about how something that happened early in a story connects with something that happened later. If your child has trouble
linking these events, ask him or her to reread the relevant parts of the story slowly and carefully, and then try answering your question again.


Type: Active
Materials needed: none
Number of players: 3 or more
Play "Freeze Fast!" Each player thinks of an action. One player acts out an action and then "freezes," staying absolutely still. A player who thinks of a possible effect of the action taps the frozen player, who then sits down. Then, this other player can act out the effect. Keep going until everyone has acted out an action and an effect of an action. For example, the first player can stretch, yawn, and lay down. Another player can take over this action by pretending to fall asleep. Or a player can pretend to hit a baseball. Another player can show the effect and pretend to be the baseball flying far over a field or the player running around the bases.


Type: Arts and Crafts
Materials needed: red, blue, and yellow food coloring, three clear glasses of water, pencil and paper
Number of players: 1 or more
Fill each glass with water. Put 3 drops of red food coloring in one glass, 3 drops of blue food coloring in another glass, and

3 drops of yellow food coloring in the third glass. On a sheet of paper, write down what you think the effect might be when you add a drop of blue food coloring to the red water, what might happen when you add a drop of yellow to the blue water, and what might happen when you add a drop of red to the yellow water.

Now, test the effects you guessed at by carrying out the experiment. Put a drop of blue into the red water, a drop of yellow into the blue, and a drop of red into the yellow water. Did you guess the correct effects of what happens when you mix colors?

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Look at the pictures below. On the left are causes. On the right are effects. Connect each cause to its effect.


Answers: 1. C; 2. A; 3. B; 4. D

## Fact and Opinion

I
n third grade, kids are still figuring out their own sense of right and wrong, and sometimes still blending the real with the unreal. As a result, your child may find it hard to tell facts and opinions apart.

Also, kids at this age can feel confused about what they know to be true and what is a fact. For example, your child may have just recently figured out that she really likes tomato sandwiches. She feels so clearly about her love of tomato sandwiches that she may mistakenly think that it's a fact that tomato sandwiches taste great to everyone.

Give your child guidelines for telling the difference between facts and opinions. Your child can do research with dictionaries and the Internet to find out if a statement is a fact. Or your child can conduct mini-surveys around the house and neighborhood. (If your child asked her neighbors if they liked tomato sandwiches, your child might quickly understand that a preference for tomato sandwiches is an opinion.) In the long run, your child will learn a very important lesson for life-that not all things that sound like facts are facts and that not all opinions are right for everyone.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- pencils
- paper
- dictionary
- poster paper
- scissors
- glue
- newspapers, magazines and/or online articles
- crayons or markers

Directions: Read the following story. Then answer questions 1-4.

## Show-and-Tell

Kim loved the zoo. She was going to go with her class at school. To prepare, they did a show-and-tell. Students stood in front of the class and shared what they knew about animals and zoos.

Cato volunteered to go first. "Elephants come from Asia and Africa," she said. "They can suck water into their trunks. Then, they can blow the water into their mouths." She held open an encyclopedia with a photograph of an elephant blowing water into its mouth. "An elephant's trunk has 100,000 muscles in it." Cato sat down, and everyone clapped. But Frank wasn't clapping.
"All I know is that all elephants are ugly," said Frank. "I think black bears are much cooler animals than elephants!"
"That's what you think," Cato said. "I just happen to think elephants are awesome."

Then it was Frank's turn. He walked to the front of the classroom. "There are eight kinds of bears in the world. Black bears can run as fast as 35 miles per hour!" said Frank.

Cato shook her head. Cato liked elephants more than bears. Kim wasn't sure what animal was her favorite, but she did know what she would talk about in class.

Kim said, "My sister is a zoologist. That means she works at a zoo. Some zoologists like to work with one type of animal the best. Other zoologists care for many different animals." She smiled and sat down.

1. What is an opinion in this story?
A. There are eight kinds of bears.
B. Kim's sister is a zoologist.
C. All elephants are ugly.
D. Elephants use their trunks.
2. What is a fact in this story?
A. An elephant's trunk has 100,000 muscles.
B. Black bears are cooler than elephants.
C. Elephants from Asia and Africa are beautiful.
D. Visiting the zoo for school is fun.
3. What is another fact in the story? How do you know this is a fact?
4. What is another opinion in the story? How do you know this is an opinion?

## Excellent Job!



## (A) Answers for this page:

1. C
2. A
3. An A+ answer: "Elephants can blow water into their mouths. This is a fact because it can be proven to be true. Also, Cato has an encyclopedia that shows a photograph of an elephant doing this, which proves it's true."
4. An A+ answer: "Elephants are awesome. This is an opinion because it is Cato's belief. Frank doesn't have the same belief. It can't be proven that elephants are awesome."

Did your child get the answers correct? If so, ask your child to share facts she has about zoos and animals. Then, ask your child to share opinions she has about animals. Discuss how all of the facts can or have been proven to be true, whereas the opinions can't be.

Did your child get any of the answers wrong? Facts and opinions aren't always easy to tell apart. Say to your child, "Just because you agree with something doesn't make it a fact. A fact can be proven to be true, and opinions cannot be. Let's talk about each opinion together."

## Watch Out!

Opinions sometimes come disguised as facts. In this story, Frank says, "All I know is that all elephants are ugly." Students might think that because someone says they "know" something, that it's a fact. Talk about what Frank says with your child. Explain that he expresses an opinion because no one could prove that all elephants are ugly-it's a point of view or opinion, not a fact.

## What to Know...

Sorting out facts from opinions can be confusing, especially when more than one person holds a strong belief, and as a group they claim that what they believe is the truth. The difference is in the proof.

Review these skills with your child this way:

- Facts are statements that are true. Facts can be about people, places, numbers, and many other things.
- Opinions are beliefs or judgments held by a person or a group. Opinions may be supported by information, but they cannot be proven to be true.

Read this passage with your child to explore the differences between facts and opinions.

Bianca hates broccoli. Her whole family hates broccoli. They all say that broccoli tastes bad. Her dad says he once saw a piece of broccoli that was pink with black dots and moved.

Then one evening, Bianca has supper at her friend Josie's house. Can you guess what they're having? Broccoli! Raw broccoli salad, broccoli pie, and broccoli soup. Josie's family says that broccoli contains many vitamins and minerals. Josie's mom says that broccoli is a green vegetable grown in many places around the world. Josie's family thinks broccoli tastes great.

> Ask your child to identify the facts and opinions in the passage.

Most third graders can identify the following facts:

- Broccoli is green.
- Broccoli is a vegetable.
- Broccoli contains vitamins and minerals.
- Broccoli is grown in many places around the world.

Ask your child, "How do you know these are facts?" Explain that these could be proven to be true. For example, broccoli is never an animal -it is always a vegetable.

Most third graders can identify the following opinions:

- Broccoli tastes bad.
- Broccoli tastes great.

> Ask your child, "How do you know these are opinions?" Explain that opinions can't be proven. There can always be a different opinion. For example, some might say broccoli tastes bad, but others could say broccoli tastes great. Ask your child to imagine other opinions.

In order to sort fact from opinion, third graders need to learn to consult reliable sources of information. Help your child find information by steering him or her to resources such as dictionaries, encyclopedias, or reliable websites on the internet. Consulting these resources will not only help your child differentiate fact from opinion, but will encourage a curiosity about the world.

> Third Graders Are...
> At this age, children are still developing their sense of the world beyond themselves. They may not recognize that something they "know" to be true is actually an opinion and not a fact. For example, if your child doesn't like broccoli, he or she may feel that Bianca's family is saying facts, when they are actually sharing opinions. Encourage your child to check what he or she "knows" against reliable outside sources.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: a dictionary, pencils, paper
Number of players: 3 or more
One player picks a word from the dictionary. It has to be a word no one knows. The player reads the word aloud. Then, this player reads five different definitions from the dictionary -one of the definitions should be the definition of the word. The other four definitions should be the definitions of other
words. The other players each guess which definition is the real definition. See how easy or hard it is to know the real definition. The players that guess correctly get a point. Then, another player can take a turn with the dictionary. The player with the most points wins.


Type: Arts and Crafts
Materials needed: poster paper, scissors, glue, newspapers, magazines, pencils, crayons or markers
Number of players: 1 or more
Make a fact collage and an opinion collage. Go through the newspapers and magazines and cut out pictures or sentences that express facts or opinions. Glue the facts to one piece of paper and the opinions to the other.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Read the sentence next to each picture. Then, choose " $F$ " if it's a fact or " $O$ " if it's an opinion.

1. Zebras have black and white stripes.

2. Lions are scary.

3. Pandas eat bamboo.

4. Gorillas look a little like people.


Answers: 1. F; 2. O; 3. F; 4. O

## Math



## Addition and Subtraction

By the time your child is in third grade, he or she might feel like an mathematics requires the mastery of adding and subtracting larger numbers. This type of addition and subtraction involves numbers too large to count very easily. Your child may suddenly find that adding and subtracting is confusing again.

In the last few years, while your child was learning basic addition and subtraction facts, he or she was probably also learning about place value. Now, your child needs to apply what he or she knows about place value to regrouping (also known as "borrowing" or "carrying"). Once your child gets the hang of this, adding and subtracting with larger numbers may seem like old hat.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!
$\angle B$

## Here's what you'll need for this lesson:

- paper
- pencil
- timer
- crayons or markers
$\square$


## Jump Right In!

Directions: Work through questions 1-4.

1. Last week, Jack scored 256 points playing his favorite video game. This week, he has scored 88 points. How many points has Jack scored so far?
A. 232 points
B. 234 points
C. 334 points
D. 344 points
2. Kelly had 55 quarters in her bank. She took 12 quarters out of the bank. How many quarters were left in Kelly's bank?
A. 42 quarters
B. 43 quarters
C. 67 quarters
D. 77 quarters

36
$+\quad 3$
A. 23
B. 25
C. 29
D. 31
4. $754-469=$
A. 185
B. 285
C. 315
D. 1,223

Excellent Job!
(A) Answers for this page:

1. D
2. B
3. C
4. B

Did your child get the correct answers? If so, ask, "When the sum of the digits in a certain place value is 10 or more, what do you do?" You can also ask, "Can you explain to me how to regroup when subtracting?"

Did your child get any of the answers wrong? If so, ask your to child explain the steps he or she took to answer the questions. Find out if your child has difficulty adding, subtracting, adding with regrouping, and/or subtracting with regrouping. If your child answered questions 2 and 3 incorrectly, then review basic addition and subtraction facts. If your child answered questions 1 and 4 incorrectly, review how to regroup (10 ones = 1 ten, 10 tens $=1$ hundred).

## Watch Out!

Sometimes third graders make mistakes when writing their problems. For example, with questions 1,2 , and 4 , your child has to write the numbers lined up by place value. For example, in question 1, students are required to add 256 and 88.

256
Your child's work should look like $\frac{+88}{256}$, but your child might have incorrectly written the problem as +88 or +88 . Make sure your child knows to line up the digits by place value, with the ones in the same column, the tens in the same column, and so on, before adding or subtracting.

## What to Know.

Your child is learning to regroup when adding and subtracting.
"Regrouping" is what educators now call the skills you might have called "carrying" and "borrowing."

Review these skills with your child this way:

- Addition is an operation that combines numbers.
- The sum is a number that results from adding numbers.
- Subtraction is an operation on two numbers that tells the difference between the numbers.
- The difference is a number that results from subtracting a number from another number.

Your child might use these skills when adding packets of flower seeds.


Explain that 7 ones +6 ones $=13$ ones, or 1 ten and 3 ones. Your child should write 1 above the tens column and 3 in the ones place of the answer. Then, add the tens and regroup ( 1 ten +2 tens +8 tens $=11$ tens, or 1 hundred and 1 ten). Your child should write a 1 above the hundreds place and a 1 in the tens place of the answer. Ask your child how to finish the rest of the problem.

Your child might subtract seeds already planted from the total number of seeds.


Make sure your child knows that 4 ones cannot be subtracted from 2 ones without regrouping. Explain that 2 tens can be regrouped as 1 ten and 10 ones. So, your child should cross out the 2 tens and write a 1 above it to show the 1 ten. Then, your child can add the 10 ones and the 2 ones to get 12 ones and write 12 in the ones place.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: paper, pencils, a timer
Number of players: 2 or more
Play "Shop 'til You Drop." Set the timer for 2 minutes. Go around your house and find things you could pretend to buy. Write a list. For example, you might find 12 eggs, 22 cans of food, and 1 basketball. The other players should do the same. When the timer rings, stop finding things to buy. Then, add the numbers of items on your list. Whoever has the most items to buy wins. Play again.


Type: Speaking/Listening
Materials needed: paper and pencils
Number of players: 2 or more
Play a game of "Simon Says Subtraction Regrouping!" One player should be "Simon." Simon says a subtraction problem. Then, Simon says "regroup" or "don't regroup" and stands in a funny way. Simon can try to trick people and say "regroup" when you don't have to regroup or say "don't regroup" when you do have to regroup. The other players write down the numbers and decide if they need to regroup. If they agree with what Simon says, they stand just like Simon. If not, they don't. Players who identified correctly whether they have to regroup or not get to play again.

For example, Simon could say "52 minus 14. Regroup," and stand in a funny way. Then, players who decided they would need to regroup to subtract 14 from 52 would also stand that way, and players who disagree would not. When subtracting 14 from 52, you do need to regroup. Those players who correctly knew to regroup could play again.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Read each problem. Decide if you have to add or subtract. Circle the word Add or Subtract to show what you need to do. Then, solve the problem.

1. Jason has 345 baseball cards in his collection. Morgan has 289 baseball cards. How many more cards does Jason have?

Add Subtract
2. Kevin had 450 baseball cards. Then, his aunt gave him 34 more cards. How many cards does he have in all?

Add Subtract
3. Megan scored 112 points last season. This season she scored 132 points. How many points did she score in all?

Add Subtract

Answers: 1. Subtract, 56 baseball cards; 2. Add, 484 baseball cards; 3. Add, 244 points

## Multiplication

Learning to multiply lets your child become a speed demon. No have to add many numbers in a row. Your child can now play and work with numbers more quickly than ever before.

If your child is feeling thrilled with this new power, that's terrific! But right now, your child is just beginning to learn multiplication and is likely to make a few mistakes. That's okay. Mastering multiplication involves rote memorization of multiplication facts, which might be challenging. However, remind your child that he or she has already mastered addition and subtraction facts. Mastering multiplication also involves understanding it. Make sure your child gets all the practice and tools he or she needs both to really understand multiplication and to correctly remember multiplication facts.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- paper
- pencil
- pennies, dimes, and dollars
- scissors
- markers or crayons


## Jump Right In!

Directions: Work through questions 1-6.

1. $3 \times 4=$
A. 1
B. 7
C. 9
D. 12
2. $9 \times 2=$
A. 7
B. 11
C. 18
D. 27
$3.6 \times 0=$
A. 0
B. 5
C. 6
D. 60
3. $1 \times 5=$
A. 1
B. 5
C. 6
D. 11

Maria and Jon went to the pond. They got bugs and fish from the pond for science class.

5. Maria got jars of grasshoppers.

How many jars of grasshoppers does she have?
How many grasshoppers are in each jar?
How many grasshoppers does she have in all?
$\qquad$ $\times$ $\qquad$ $=$ $\qquad$
6. Jon got jars of fish.

How many jars of fish does he have?
How many fish are in each jar?
How many fish does he have in all?
$\qquad$

## Excellent Job!



## Checking In

## (A) Answers for this page:

1. D
2. C
3. A
4. B
5. An A+ answer: "Maria has 3 jars. There are 8 grasshoppers in each jar. So, Maria has 24 grasshoppers in all. $3 \times 8=24$."
6. An A+ answer: "Jon has 5 jars. There are 10 fish in each jar. So, Jon has 50 fish in all. $5 \times 10=50$."

Did your child get the correct answers? If so, ask your child to show you how she answered one of the questions. Make sure your child can find the correct answer again.

Did your child get any of the answers wrong? Find out if your child knew to multiply but made an error. If so, explain that he can check his answers by using repeated addition. For question 1, your child might not know for sure if $3 \times 4=12$, so he can check his answer by adding 3 four times ( $3+3+3$ $+3=12$ ).

## Watch Out!

Sometimes third graders mix up addition, subtraction, and multiplication. Write down the addition sign ( + ) and say that this means to add, the subtraction sign (-) and say that this means to subtract, and the multiplication sign ( $\times$ ) and say that this means to multiply.

Then, have your child flip through this book, identify signs, and give an example of how each could be used. So, if your child finds an addition sign
${ }^{(+)}$, he or she might say, "This is an addition sign or a plus sign. $2+5=7$ " or "This is a multiplication sign ( $\times$ ). $2 \times 5=10$."

## What to Know...

Third graders can use multiplication to figure out things quickly, such as, "How many fireflies do I have?"

Review these skills with your child this way:

- Equal groups are groups that all have the same number of objects.
- Multiplication is an operation that combines equal groups to find a result. (One way to combine equal groups is through repeated addition.)
- The multiplication sign is $\times$. When your child sees $\times$, he or she can say "times."
- A factor is a number multiplied by another number.
- A product is a number that is the result of multiplying numbers.

$4 \times 5=20$

Ask your child to count all the
fireflies in each jar. Explain that there are 5 fireflies in each jar, so these are equal groups of fireflies.
Then, ask your child to identify the factors (4 and 5) and the product (20).

## Checking In

Does your child struggle to grasp the concept of multiplication? Help by showing equal groups. Use something that your child is familiar with, such as buttons, toys, socks, or other everyday objects. Make different collections of equal groups ( 5 groups of 4 socks, 9 groups of 7 checkers, etc.). Have your child count the objects and figure out that there are equal groups. Then, ask your child to use multiplication to find the total number of objects.

Your child can use basic multiplication facts.

| $\times$ | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\mathbf{1}$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| $\mathbf{2}$ | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| $\mathbf{3}$ | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| $\mathbf{4}$ | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| $\mathbf{5}$ | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| $\mathbf{6}$ | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| $\mathbf{7}$ | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| $\mathbf{8}$ | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| $\mathbf{9}$ | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 73 | 72 | 81 | 90 |
| $\mathbf{1 0}$ | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

> Ask your child to say the multiplication facts aloud. Ask your child to review his work from this page using these multiplication facts.

## Watch Out!

Third graders often get multiplication facts involving 0,1 , and 10 confused. Help them by pointing out when these facts are useful in everyday life. For example, facts involving 10 are useful when dealing with money because our money system is a base-ten system. Use dollars, dimes, and pennies. Ask your child to figure out how many dimes are equal to 1 dollar, 2 dollars, 3 dollars, and so on. Say, "You know that 10 dimes equal 1 dollar, and 1 times 10 equals 10 . So, you can use multiplication to figure out that there are 10 dimes in 1 dollar." Or say, "Imagine you want to trade 4 dollars for dimes. You know that there are 10 dimes in 1 dollar, and 4 times 10 equals 40 . So, there are 40 dimes in 4 dollars." Do the same with exchanging pennies for dimes.

## Third Graders Are...

Third graders are eager to perform new mathematics skills and enjoy regular practice. So, feel free to keep reviewing the multiplication facts as often as your child wants to. You can have your child turn them into songs, draw them as pictures, or use them every day during errands and tasks.

## On Your Way to an "A" Activities



Type: Game/Competititve
Materials needed: paper, pencil, pennies
Number of players: 3 or more
Play "Bingo." One player has to be the caller. The other players should draw five-by-five grids on paper. Each player should write a different multiplication fact in each square of his or her grid (like $4 \times 3=12$ ). The caller calls out a multiplication fact. Check to see if you have this fact correctly on your card. If you do, cover the fact with a penny. The first player to cover five facts in a row across, down, up, or diagonally wins.


Type: Active
Materials needed: dollars, dimes, and pennies (or paper, crayons, and scissors to make fake money)
Number of players: 2 or more
Play "Bank." Pretend that you have a bank. One player should be the banker and run the bank. The other player comes into the bank with money that he or she needs to change. For example, this player could have 10 pennies and want dimes. The banker decides how much the player's money is worth. Take turns.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: For each multiplication fact, draw equal groups of bugs or fish. Then, find the product.

$6 \times 1$

Answers: 3 jars with 9 spiders $=27$ spiders; 4 jars with 10 bugs/fish in each jar $=40 ; 6$ jars with 1 bug/fish in each jar = 6

## Division

Y
our child probably has a lot of experience sharing-toys, food, chores, TV time. Whenever you've told your child, "Be fair and share equally," you've been getting her to divide.

Now your child is beginning to learn formal rules of division. Chances are that they're starting to use division in math class. They also may be asked to answer division problems involving only numbers, not objects or pictures. Faced with these abstract problems, your child might get lost. They need to relate the new rules they are learning to what they already know about division.

When it comes to receiving a shared amount of food or toys, children are highly motivated-they want to make sure they received their fair share. This should get your child geared up to learn division and memorize division facts.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- pencil
- 16 index cards
- crayons or markers
- chalk
- pebble

Directions: Work through questions 1-6.

1. $15 \div 3=$
A. 3
B. 5
C. 12
D. 45
2. $8 \div 4=$
A. 2
B. 4
C. 10
D. 16
3. Which one of these shows $12 \div 3$ ?
A. $(A)(A)(A)(A)(A)(A)(A)(A)(A)(A)$
B.

c.

D.



Linda has $\$ 20$. She wants to buy gifts for friends.
Gifts for Friends

|  | Books | $\$ 5$ |
| :---: | :---: | :---: |
|  | Backpack | $\$ 10$ |
|  | Notebooks | $\$ 1$ |

4. Linda thinks she might buy only books. How many books can she buy?

$$
\$ 20 \div
$$

5. Linda thinks she might buy only backpacks. How many backpacks can she buy?
$\$ 20 \div$ $\qquad$

$$
=
$$

$\qquad$
6. Linda thinks she might buy only notebooks. How many notebooks can she buy?

$$
\$ 20 \div
$$



## Checking In

## (A) Answers for this page:

1. B
2. A
3. B
4. An A+ answer: " $\$ 20 \div \$ 5=4$ books. Linda can buy 4 books."
5. An A+ answer: " $\$ 20 \div \$ 10=2$ backpacks. Linda can buy 2 backpacks."
6. An A+ answer: " $\$ 20 \div \$ 1=20$ notebooks. Linda can buy 20 notebooks."

Did your child get the correct answers? If so, ask your child to draw a picture showing the division facts and labeling the picture.

Did your child get any of the answers wrong? If so, tell your child to use what he knows about multiplication to answer division problems. Use groups of pennies to show your child that 3 equal groups of 4 pennies means there is a total of 12 pennies. Then, show your child how 12 pennies divides into 3 equal groups of 4 pennies. For question 2, ask your child, " 4 times what equals 8 ?"

## Watch Out!

Sometimes third graders see two numbers in a problem and just guess at what they should do. They add, subtract, multiply, or divide without any thought to why they are doing something. Go over different problems from lessons 1, 2, and 3 . Ask your child to figure out how to solve each problem. Tell your child to draw a picture of what the problem is describing to help figure out how to solve it.

## What to Know...

Third graders use division all the time when they are sharing. Review these skills with your child this way:

- Equal groups are groups that have the same number of items in them.
- Division is an operation with two numbers that tells how many groups there are. It also tells how many items are in each group. The division sign is $\div$.
- The quotient is a number resulting from dividing a number by another number. For example, in $24 \div 8=3$, the quotient is 3 .

Your child could evenly divide a plate of cookies to find out the number of cookies they could give to friends.


Ask your child to count all the cookies on the big plate. Then, ask your child to count the number of small plates. Explain how this shows that there are 24 cookies being divided by 4. Next, ask your child to count the number of cookies on each small plate. Explain that there are 6 cookies on each small plate, so these are equal groups. Then, ask your child to identify the quotient (6).

Your child can use basic division facts.

| $\times / \div$ | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\mathbf{1}$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| $\mathbf{2}$ | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| $\mathbf{3}$ | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| $\mathbf{4}$ | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| $\mathbf{5}$ | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| $\mathbf{6}$ | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| $\mathbf{7}$ | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| $\mathbf{8}$ | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| $\mathbf{9}$ | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 73 | 72 | 81 | 90 |
| $\mathbf{1 0}$ | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Ask your child to say the division
facts aloud. Ask your child to review her work from this page using these division facts.

## Watch Out!

Does your child remember all of these division facts? If not, find out what facts your child remembers and what facts your child forgets. Often, students will be really good at some facts and totally forget another set of facts. Go over the facts your child forgets.

## Study Right

Make flash cards for multiplication facts and division facts. Making flash cards is a great skill to learn at this age, and it is one that will be used throughout your child's school career.

> Third Graders Are...
> Most third graders are just starting to hit the developmental period when they can begin to think abstractly. Division is an abstract concept. Some third graders may not yet be ready, however. Every child grows at a different pace. Having your child use division in everyday life can make the abstract concept of division more concrete.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: 16 index cards, crayons or markers
Number of players: 2
Write a different division problem (but not the answer) on each of 8 index cards. Make sure each problem has a different answer. Write the answers to the division problems on 8 separate index cards. Shuffle the cards. Then, lay them out facedown in four rows of four cards. Take turns picking two cards. If you pick a division problem and its correct answer, then keep that pair. If you don't, put them back facedown. Whoever has the most pairs at the end wins!


Type: Active
Materials needed: chalk and a pebble Number of players: 2 or more

Draw a long hopscotch playing area on a safe sidewalk. Use different shapes and make sure the shapes connect. Write a different division problem in each shape (but not the answer). Then, throw a pebble into a shape. Say the answer to the division problem, then hop on one foot to that shape. Take turns. If you don't know the answer, you have to skip your turn. Whoever gets the farthest wins.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers!
Divide the food into equal groups. Draw and color the equal groups of food. Then, solve the division problem.


Answers: 3 kids each with 2 apples, $6 \div 3=2$; 5 bunnies each with 3 carrots, $15 \div 5=3$; 4 kids each with 3 cherries, $12 \div 4=3$

## Fractions

How comfortable with fractions is your child? Most likely, fractions multiplication and division required some abstract thought, thinking about values between 0 and 1 can seem like science fiction to your child.

Many third graders have an "ugh" response to fractions. You may have even scowled at your fraction homework as a child. If your child has a replica of the scowl you had years ago, consider how your own history might inadvertently influence your child's attitude. If fractions were your archenemy, now's the time to look at fractions with clear eyes and a new perspective. Fractions are used all the time-in cooking and measuring, at home, and on the job. If you loved fractions, then let your enthusiasm show. Share your learning experiences. Your child will feed off them and grow.

It's natural to feel both excited and overwhelmed by learning. Make sure your child understands that these feelings are all part of the process of being a successful learner.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- graph paper or grid paper
- pencils
- crayons or markers
- 20 index cards
- timer


## Jump Right In!

Directions: Work through questions 1-5.

1. Which cake is $\frac{1}{4}$ black?
A.

C.

B.

D.


2. What fraction of the marbles is black?
A. $\frac{5}{12}$
B. $\frac{5}{7}$
C. $\frac{7}{12}$
D. $\frac{7}{5}$
3. Which of these shows "two-sixths"?
A. $\frac{1}{6}$
B. $\frac{2}{6}$
C. $2 \frac{1}{6}$
D. $\frac{26}{6}$

Sammy was playing with a puzzle. Use the picture below to answer questions 4 and 5.

4. Sammy has 7 pieces left to put in the puzzle. What fraction of these leftover pieces is gray?
5. What fraction of these leftover pieces is white?

## Excellent Job!



## Checking In

## (A) Answers for this page:

1. C
2. C
3. B
4. An A+ answer: " $\frac{4}{7}$ of the pieces are gray." 7
5. An A+ answer: " $\frac{3}{7}$ of the pieces are white."

Did your child get the correct answers? If so, ask, "How do we use fractions around the house?" Then, ask your child to identify fractions with ordinary objects, such as the number of gray pieces in a toy out of the total number of pieces, or the number of cookies eaten out of the total number of cookies.

If your child got any of the answers wrong, go over these answers. Make sure your child knows what number to put in the numerator and what number to put in the denominator. For example, with question 2, your child should count the number of black marbles and put this in the numerator (above the line). Then, your child should count the total number of marbles (black and white) and put this in the denominator (below the line).

## Third Graders Are...

Sometimes third graders get excited and rush through their work. Along the way, they might make some mistakes. Encourage your child to take a moment or two to relax after completing the Jump Right In! section. Then, she can check her work with a fresh focus.

## What to Know...

Your child might be used to using division when thinking about sharing (food, games, TV time, etc.). But your child can also use fractions when sharing.

Review these skills with your child this way:

- A fraction is a number that shows part of a group or part of a whole.
- A numerator is the number in a fraction that is above the line. The numerator tells how many parts of the whole are being counted.
- A denominator is the number in a fraction below the line. The denominator tells how many equal parts are in the whole.

Your child may need to identify fractions for parts of a whole, such as a whole cake, or parts of a group, such as a group of candy.


Ask your child to count the number of slices that are gray (1) and the number of total slices (8). Then, ask your child to identify the numerator and denominator in the fraction.


> Ask your child to count the number of pieces of candy that are gray (1) and the number of total pieces of candy (7). Then, ask your child to identify the numerator and denominator in the fraction.

Fractions aren't as foreign as they might seem. Whenever your child uses a ruler, he or she is identifying fractions and mixed numbers on a number line.

Review these skills with your child this way:

- Whole numbers are numbers including zero and the counting numbers ( $0,1,2,3,4, \ldots$ ).
- A mixed number has a whole number part and a fraction part.

$1 \frac{1}{8}$

Point out that 1 whole cake is gray. Then, ask your child to count the number of slices that are gray in the second cake (1) and the number of total slices in the second cake (8). Then, ask your child to identify the whole number and the fraction together.


Ask your child to identify the length of the crayon.

## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: graph paper or grid paper, pencils, crayons or markers
Number of players: 1 or more

Make "Fraction Meteors!" Imagine meteors are burning up in space. Draw a meteor on the grid paper that is made up of 4 squares. Then, draw meteors made up of $8,12,16$, and 20 squares. Imagine that after burning up, only $\frac{1}{4}$ of each meteor is left. Color in $\frac{1}{4}$ of each meteor.


Type: Game/Competitive
Materials needed: 20 index cards, pencils, a timer, crayons or markers
Number of players: 2 or more
Play "Fraction Scavenger Hunt." Write each of these
fractions on a different index card: $\frac{1}{6}, \frac{1}{5}, \frac{1}{4}, \frac{1}{3}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{3}{4}$, and $\frac{4}{5}$.

Then, shuffle the cards. Every player should pick a card. Don't show the cards to each other. Turn the timer to 5 minutes. Each player should look for the fraction around the house, in books, in signs, on boxes or cans of food, and in other places. Each time players find their fraction, they should write down where they found it on their index card. Players can also draw a picture of it on their index card. When time is up, players should compare their cards. Whoever found the most examples of his or her fraction wins! Play another round by picking new cards.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab your crayons and markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Color the toys in the toy store.

Color $\frac{1}{5}$ of the kites blue.
Color $\frac{1}{3}$ of the tricycles red.
Color $\frac{1}{2}$ of the trucks yellow.
Color $\frac{1}{4}$ of the puzzle pieces green.


Answers: 1 kite is blue; 3 trucks are yellow; 1 tricycle is red; 3 puzzle pieces are green.

## Decimals

Right now, your child doesn't really use decimals in everyday life. Fhere svery little chance your child is going to start using decimals to figure out how to feed the pet or to divvy up TV time with siblings. As a result, your child might find it boring to learn the basic mechanics of decimals, such as place value and how to read and write decimals.

Encourage your child's interest in decimals by showing how you use decimals with money. Talk about using decimals when you balance your checkbook, or show your child the decimals in the price tags of his favorite toys and clothes. Point out decimals in the world (the weight of food, prices, etc.). Keeping your child's interest will help her learn the vital skills she'll be expected to know.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## - O

Here's what you'll need for this lesson:

- grid paper or graph paper
- crayons or markers
- 20 index cards
- pencils


## Jump Right In!

Directions: Work through questions 1-5.


1. What decimal shows the shaded parts of the picture?
A. 0.04
B. 0.4
C. 4.0
D. 10.4
2. How is "three-hundredths" written as a decimal?
A. 0.03
B. 0.3
C. 3.0
D. 300

3. What decimal shows how many lollipops are gray?
A. 0.06
B. 0.4
C. 0.6
D. 4.6

4. What decimal belongs at point $A$ ?

Color in the pictures of socks below to show this decimal.

5. What decimal belongs at point $B$ ?

Color in the pictures of dogs below to show this decimal.


## (A) Answers for this page:

1. B
2. A
3. C
4. An A+ answer: 0.2; 2 of the 10 socks should be colored in.
5. An A+ answer: 0.7; 7 of the 10 dogs should be colored in.

Did your child get the correct answers? If so, ask your child to identify the digits in the decimals by place value. For question 2, you could say, "Look at 0.03 . What is the place value of the first zero (ones place), the second zero (tenths place), and the three (hundredths place)?"

Did your child get any of the answers wrong? If so, tell your child that the parts of the shapes and groups in these pictures are equal parts. For question 3, say, "Each of these lollipops is an equal part." Tell your child that decimals and fractions deal with equal parts. For each question, ask your child to count the total number of equal parts and then the number of shaded parts.

## Watch Out!

Your child is just starting to learn about decimals, so he or she is probably going to struggle with place value. Sometimes, your child might put the digits in any place without attention to place value. For example, your child may not be able to tell the difference between 0.03 and 0.3 . Work with your child to show the difference between those numbers. For example, your child can count out 100 beans and write his or her first initial on 3 of them to show 0.03 , and then do the same using 10 beans to show 0.3 . You can also do this with socks, game pieces, and such.

## What to Know...

Review these skills with your child this way:

- A decimal is a number that has a decimal point. Decimals include values to the right of the decimal point that are part of a whole number.
- A digit is a symbol that is used to write numbers. There are 10 digits: $0,1,2,3,4,5,6,7,8$, and 9 .
- Place value is the value of a digit based on its place in a number. For example, in the number 382, the digit 8 is in the tens place, so it has a value of 80 .

When your child counts 10 equal parts in a group or a whole, he or she can use decimals to the tenths place.


Point out to your child that 1 out of 10 game pieces is gray. Now, ask your child to count the number of pizza slices with pepperoni and the total number of pizza slices. Then, review the place-value chart with your child.

Make a place-value chart together. Ask your child to write a decimal into the place-value chart, say the decimal out loud, and write the name of the decimal. This kind of practice will help your child internalize these concepts.

Your child can identify decimals to the tenths place on number lines (and metric rulers).


Ask your child to identify the decimal
for the shaded parts of each
rectangle.
When your child counts 100 equal parts in a group or a whole, he or she can use decimals to the hundredths place.


| Ones | . Tenths | Hundredths |
| :---: | :---: | :---: |
| 0 | 3 | 3 |

Ask your child to count the number of equal parts on the game board (100) and the number of shaded parts (33). Then, review the placevalue chart with your child.

## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: grid paper or graph paper, crayons or markers Number of players: 1

Draw a square on your grid with sides that are 10 squares long. Make sure the square has a total of 100 squares in it. Draw several 10-by-10 squares. Then, make a different design in each one and color in the design so that 0.25 of each square is colored in. See how many different designs you can come up with!


Type: Games/Competitive
Materials needed: 20 index cards, pencils
Number of players: 2

Give your partner 10 index cards, and take 10 index cards for yourself. Write a different decimal on each index card. You and your partner should both write 5 decimals to the tenths place and 5 decimals to the hundredths place. Shuffle the cards and place the deck facedown. Take turns picking a card and placing it face up. The first player to say if the decimal goes to the tenths place or the hundredths place wins a point. Keep playing. The player with the most points at the end wins the game.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab your penci!!
Directions: The shaded pictures below show different decimals. Choose the correct picture for each decimal.

0.7
2.

0.1
3.


Answers: 1. 0.57; 2. 0.7; 3. 0.1

## Adding Decimals

Y
our child has probably just learned about how decimals show parts of awhole-those values between 0 and 1. That's a big deal. Now your child is on to the next big idea-to regroup (also called "carrying") with decimals. When helping your child with homework about adding decimals, you might hear him go, "Huh?" And you might be stumped to explain it too.

But as adults, we regroup all the time. Sometimes we call it "making change," when we give 10 pennies for a dime. To regroup, your child needs to know that 1 one $=10$ tenths and 1 tenth $=10$ hundredths. Knowing this will help your child to add decimals correctly as well as with many other tasks, such as making change.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- digital stopwatch
- pillowcases or ribbon
- chalk
- paper
- pencils
- newspapers


## Jump Right In!

Directions: Work through questions 1-5.

$$
\begin{array}{r}
0.14 \\
\text { 1. } \\
\hline
\end{array}
$$

A. 0.26
B. 0.34
C. 0.36
D. 0.37
0.9
2. +0.4
A. 0.13
B. 1.3
C. 1.03
D. 13
$\begin{array}{r}0.3 \\ \text { 3. } 0.5 \\ \hline\end{array}$
A. 0.08
B. 0.2
C. 0.8
D. 8.0

$$
\begin{array}{r}
0.74 \\
\text { 4. }+0.38 \\
\hline
\end{array}
$$

A. 0.36
B. 0.44
C. 1.02
D. 1.12
5. Katy bought a stuffed animal that cost $\$ 11.45$ and a game that cost $\$ 5.95$. How much did she spend in total?


## Checking In

## (A) Answers for this page:

1. C
2. B
3. C
4. D
5. An A+ answer: "Katy spent $\$ 17.40$ in total."

Did your child get the correct answers? If so, ask your child to explain how he regrouped with questions 2 and 4 .

Did your child get any of the answers wrong? If so, find out where your child was confused. If your child answered questions 1 and 4 incorrectly, then they may be able to add decimals to the tenths but may be confused about adding decimals to the hundredths. If your child answered questions 2 and 3 incorrectly, then they may be able to add decimals without regrouping but may be confused about regrouping. Help your child identify the problem.

## Third Graders Are...

Third graders are just beginning to learn about decimals. As a result, when adding decimals together, they may forget to regroup and place digits in the wrong place value. For example, a child might think that $3.8+4.7$ is 7.15 . In this example, the child added the 3 and 4 and wrote the sum to the left of the decimal point, then added 8 and 7 and wrote the sum to the right of the decimal point. Your child might not think about the relationship. Or, he or she might place the decimal in the wrong place: $3.8+4.7=0.85$ or even 85.

## What to Know...

Review these skills with your child this way:

- A decimal is a number that has a decimal point. Decimals include values to the right of the decimal point that are part of a whole number.
- A decimal point is the period in decimals that separates the tenths place and the ones place.
- A digit is a symbol that is used to write numbers. There are 10 digits: $0,1,2,3,4,5,6,7,8$, and 9 .

Your child could count money in a piggy bank.

\$0.25


$$
\begin{array}{r}
\$ 0.25 \\
+\$ 0.01 \\
\hline \$ 0.26
\end{array}
$$

Tell your child to add the digits in the hundredths place first. 5 hundredths +1 hundredth = 6 hundredths. Then, tell your child to add the digits in the tenths place.

Your child might see a store owner figure out how much someone needs to pay when buying clothes.


> Make sure your child can regroup and knows that 9 hundredths +2 hundredths $=11$ hundredths (regroup 11 hundredths to 1 tenth and 1 hundredth). Make sure your child continues to regroup to get the right answer.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: digital stopwatch, pillowcases or ribbon, chalk, paper, pencils
Number of players: 3 or more
Play "Every Second Counts!" You and the other players will race! Draw a chalk starting line and finish line on the sidewalk. One player is the timer. The other players are the racers. If you have pillowcases, then have a sack race. If you don't, then use the ribbon to have a three-legged race. The timer uses the stopwatch to time each racer and writes down every player's time. Each racer has to complete the race twice. Then, every player adds together the two times to find his or her total time. Whoever has the shortest time wins!


Type: Reading/Writing
Materials needed: newspaper, paper, pencils
Number of players: 2 or more
Pretend you are planning a party for someone. Write four lists of what you'll need for the party. Write a "Food" list, a "Decorations" list, a "Games" list, and a "Gifts" list. Each player should take a list. Then, everyone should pretend to shop for things to buy for the party by looking through advertisements in newspapers or online. (You can also look at the food in your kitchen to find the prices of food.) Each player should write down the prices of everything he or she wants to buy. Then, each player adds the costs together. Now, work together to add everyone's costs to find the total cost of the party.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab your pencil!
Directions: You are planning a party. Find the costs.
1.

2.

3.

4.


Answers: 1. \$4.75; 2. \$10.44; 3. \$7.40; 4. \$11.65

## Subtracting Decimals

In third grade, your child is delving into decimals. Not only is your cint asked to identify decimals to the tenths place and hundredths place, but your child is asked to add and subtract decimals. Your child may feel that he is spending all his time on decimals. Even if your child is excited by the challenges of decimals, he may not understand why decimals are so important and so heavily emphasized.

When possible, open your child's eyes to the large-scale importance of decimals. Decimals are used by musicians, scientists, athletes, and others. Give your child a sense of the immediate use of decimals. Right now, decimals can help your child become a better shopper. Learning to subtract decimals means your child can know how much change she should get when buying snacks or toys. Making purchases is a great way to experience the importance of subtracting decimals.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## - OO

Here's what you'll need for this lesson:

- things around the house
- paper
- pencils
- dimes and pennies
- timer


## Jump Right In!

Directions: Work through questions 1-5.

$$
\begin{array}{r}
\$ 0.72 \\
\text { 1. }-\$ 0.34 \\
\hline
\end{array}
$$

A. 0.38
B. 0.42
C. 0.48
D. 1.06
1.9
2. -0.6
A. 0.3
B. 1.3
C. 1.5
D. 2.5

$$
\begin{array}{r}
0.48 \\
3 .-0.12 \\
\hline
\end{array}
$$

A. 0.36
B. 0.38
C. 0.50
D. 0.60
$\begin{array}{r}1.4 \\ \text { 4. }-0.5 \\ \hline\end{array}$
A. 0.1
B. 0.6
C. 0.9
D. 1.9
5. Martin had $\$ 0.35$ and spent $\$ 0.10$ on a sticker. How much does he have left?


## Checking In

## (A) Answers for this page:

1. A
2. B
3. A
4. C
5. An A+ answer: "Martin will have $\$ 0.25$ left."

Did your child get the correct answers? If so, ask your child to explain how she regrouped with questions 1 and 4 .

Did your child get any of the answers wrong? If so, find out where your child was confused. If your child got questions 1 and 3 wrong, then he can subtract decimals to the tenths but may be confused about how to subtract decimals to the hundredths. If your child got questions 1 and 4 wrong, then he can subtract decimals without regrouping, but may be confused when he must regroup.

## Third Graders Are...

Third graders sometimes think that they always subtract the "smaller" digit from the "larger" digit, no matter which is above the other in a problem. Check to see if your child made this mistake with questions 1 and 4. Remind your child that in these cases, he or she needs to regroup.

## Watch Out!

Third graders are still learning about regrouping when subtracting. As a result, they can easily forget that when they regroup, they are working with digits in different place values. For example, with question 1, your child might remember that she can regroup so that 2 hundredths becomes 12 hundredths. But she may forget that she "took" or "borrowed" 1 tenth in order to do this, and that therefore 7 tenths becomes 6 tenths. Make sure your child remembers that when she regroups she is "taking" or "borrowing" from one place value into another place value. Have her cross out the 7 in the tenths place and write a 6 instead.

## What to Know...

Your child might enjoy the freedom of making his or her own purchases. Knowing how to subtract decimals can help your child make sure to get correct change.

Review these skills with your child this way:

- A decimal is a number that has a decimal point. Decimals include values to the right of the decimal point that are part of the whole number.
- A decimal point is the period in decimals that separates the tenths place and the ones place.
- A digit is a symbol that is used to write numbers. There are 10 digits: $0,1,2,3,4,5,6,7,8$, and 9 .

Your child might buy a lollipop with a quarter and get change back.

> Ask your child to rewrite the subtraction problem on another piece of paper and make sure he or she lines up the numbers by place value.


19910 $\$ 2.0 .00$

- $\$ 17.95$ $\$ 2.05$

Make sure your child knows how to regroup when there are zeros. Tell him or her to regroup the 2 in the tens place as 1 ten and 10 ones and write a 1 in the tens place. Then, continue: 10 ones $=9$ ones +10 tenths, so your child can write a 9 in the ones place. Next, 10 tenths $=9$ tenths and 10 hundredths, so your child can write a 9 in the tenths place and a 10 in the hundredths place.

## On Your Way to an "A" Activities



Type: Active
Materials needed: things around the house, paper, pencils, dimes, pennies
Number of players: 2 or more
Play "Trader Station." Imagine it's the 1800s. Pretend that you and the other players are getting ready to move west to settle new territories. You need to buy supplies at a Trader Station. Pick out things from the house for the Trader Station. One player should be the trader. The trader should make price tags for each thing using paper and a pencil. The prices should be in whole dollars (\$1.00, \$2.00, and so on). The other players have to figure out how many dimes to use to buy what they need. Now, play again. This time the prices should be in 10 -cent amounts (\$0.10, \$0.20, and so on). The other players have to figure out how many pennies to use to buy what they need.


Type: Active
Materials needed: paper, pencils, a timer, things around the house Number of players: 1

Play "Shopping Spree." Pretend that you have won \$20.00. Now, find as many things around your house that you can pretend to buy in 5 minutes or less. At the end of 5 minutes, write everything down. Give each thing a price that is a
decimal. Subtract one thing from your $\$ 20.00$. Then, subtract the next thing and the next to see if you have spent all of your $\$ 20.00$. See how much stuff you can buy before you run out of money!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Pretend that you and your friends went shopping for school supplies and you want to see how much money you have left. Use the pictures below to find out.


Answers: $\$ 20.00-\$ 14.99=\$ 5.01 ; \$ 9.50-\$ 1.20=\$ 8.30 ; \$ 5.15-\$ 0.45=\$ 4.70$

# Figures and Polygons 

T
here are shapes everywhere for your child to recognize. Your child provably played with shape games as a baby. At that age, babies could feel the shape and look at the shape. Your child didn't have to name the shape. It was simpler stuff-match the blue square with the picture of the blue square. Then, maybe your child moved on to puzzles involving more intricate shapes, or arts-and-crafts projects for which your child could cut out, color, and glue all sorts of shapes.

Shapes are a much more challenging subject for your child now. At this age, your child has to know a whole lot more. Third graders are given more and more shapes to sort and classify. The descriptions of the shapes are increasingly more specific. Your child needs to recognize them, name them, and describe them according to the number of sides or angles.

While all this might seem a bit excessive, it's not. We all need to have shared terms for shapes-when someone says "hexagon" or "rectangle," your child has to know what this means. At its core, math is a language. This is some of the key stuff that makes up that language.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!
-60

Here's what you'll need for this lesson:

- pencils
- colored paper
- scissors
- glue


## Jump Right In!

Directions: Work through questions 1-5.

1. Which picture is not a polygon?
A.

C.

B.

D.

2. Bees build beehives using the shape below. What is this shape?

A. an octagon
B. a hexagon
C. a pentagon
D. a kite
3. Which shape has four equal angles and four equal sides?
A. a square
B. a triangle
C. a pentagon
D. an octagon

Nick and Marta are walking to the playground.

4. Nick sees many things shaped like triangles in the playground. What are two things at the playground shaped like a triangle?
5. Marta sees many different shapes and describes them to Nick. What things in the playground is she describing?

8 angles and 8 sides:
4 square angles and 4 equal sides:
4 angles and 4 sides:

## Excellent Job!



## (A) Answers for this page:

1. C
2. B
3. A
4. An A+ answer: "There are triangles in the swings and jungle gym."
5. An A+ answer: " 8 angles and 8 equal sides: stop sign; 4 square angles and 4 equal sides: bus stop sign; 4 angles and 4 sides: kites"

Did your child get the correct answers? Did your child remember the names of the shapes? You can ask, "What things can you see right now that are squares? Circles?" And so on.

Did your child get any of the answers wrong? If so, maybe your child is more familiar with some shapes than other shapes. Ask your child to list all the shapes he knows and to draw a picture of each type. Find out what shapes your child knows and doesn't know.

## Watch Out!

Sometimes third graders may think that anything with four sides is a square, instead of telling the difference between squares, rectangles, and kites. This is natural. It still means they are noticing that the shape has four sides. Encourage your child to be more specific when describing shapes. Show them examples of squares, rectangles, and kites. Point out that squares have four equal sides, rectangles have two pairs of equal sides and the equal sides are opposite to each other, and kites have two pairs of equal sides and the equal sides share a corner. Ask your child to describe the differences.

## What to Know...

Your child sees shapes everywhere.
Review these skills with your child this way:

- An open figure is a two-dimensional figure in which there is an opening because not all the sides connect.
- A closed figure is a two-dimensional figure in which all the sides connect and there is no opening.
- An angle is an open figure formed by two lines that meet at a point.
- A polygon is a closed two-dimensional figure with straight sides.
- A circle is a round shape with no straight sides. A circle is not a polygon.

| Open Figures | Closed Figures |
| :---: | :---: |
| $\longrightarrow$ | $\square$ |

Ask your child to pick out the shapes
that are open. Then, pick out the shapes that are closed.

Your child sees polygons everywhere. Review these skills below.

|  | A circle is a round shape with no straight sides. |
| :--- | :--- |
|  | A triangle is a shape with three straight sides. |


| $\square$ | A square is a shape with four square corners and four |
| :--- | :--- |
| straight sides. All the sides are the same length. |  |$|$| A rectangle is a shape with four square corners and |
| :--- | :--- |
| four straight sides. The opposite sides of a rectangle |
| are the same length. |

## E Study Right

Work with your child to create flash cards. Flash cards are a great study tool and can help your child learn about different shapes. On one side of each card, your child can write the name of a shape. On the other side, your child can draw pictures of that shape. This process will help solidify the image of each shape in your child's memory. You and your child can review the cards one by one, or your child can sort them by a specific attribute (polygons versus non-polygons or open versus closed). This process will help your child remember and classify many different shapes.

## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: colored paper, pencils, scissors, glue Number of players: 1 or more

Make shape animals. Draw a picture of an animal on a piece of paper. It could be any animal you like (a bunny, a dog, a cat, and so on). Then, cut out shapes, such as squares, rectangles, triangles, and so on, from other pieces of paper. Glue these shapes onto your drawing. Use whatever shape you need to make the animal. For example, you can make the head out of a circle or a square. Make a whole zoo of shape animals!


Type: Game/Competitive
Materials needed: none
Number of players: 3 or more
Play "Secret Shape." Each time you play, one player has to leave the room. While that player is gone, the other players decide on a shape. Then, these players lie on the floor and form the shape with their bodies. Then, call out to the player in the other room to come back in and guess the shape. If the player can't guess the shape, tell the player the shape. Then, this player should give instructions for how to "fix" the shape. Once everyone is agreed that the players on the floor have correctly made the shape, play again. Take turns being
the player who leaves the room and has to guess the secret shape.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab your pencil!
Directions: Use the key to unlock the code. Then, find the answer to the riddle.


1. 4 square angles, 4 equal sides

Letter: $\qquad$
2. Round shape, no straight sides Letter: $\qquad$
3. 4 square angles, 4 sides, opposite sides are equal Letter: $\qquad$
4. 6 angles, 6 straight sides

Letter: $\qquad$
5. 5 angles, 5 straight sides

Letter: $\qquad$
6. 8 angles, 8 straight sides Letter: $\qquad$
7. 3 angles, 3 straight sides Letter: $\qquad$
What did the kite say to the other shapes?

$$
\overline{1} \quad \overline{2} \overline{3} \overline{4} \quad \overline{5} \frac{}{6} \frac{}{7}!
$$

Answer: I can fly!

## Three-Dimensional Figures

Most third graders are familiar with three-dimensional shapes. spent their whole lives playing with and manipulating themblocks, basketballs, building forts, and so on. This provides a strong background and starting point for three-dimensional figures. Even though they have played with and explored these shapes, however, they may not have learned the language that they need to know for math class. They may not know that the corner of a cube is really a "vertex," and they may not care.

In school, it is important to communicate correctly about shapes. So, it becomes more important for your child to be able to name and describe them. Your child may not ever have counted the sides of a cube or looked at the bottom of a cone. But now your child is expected to know what each part of a shape is called and how many there are. The nice thing about this is that shapes are everywhere. Your child can see how understanding shapes is important because people use shapes in their jobs. Engineers, carpenters, artists, and others use shapes. People also use shapes at home and with hobbies: basketball, gardening, cooking, etc.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

- paper
- pencil
- tape
- glue
- crayons or markers
- things around the house (juice boxes, canned food, toilet paper rolls, and so on)


## Jump Right In!

Directions: Work through questions 1-6.

1. What shape has no straight sides?
A. a cube
B. a cylinder
C. a cone
D. a sphere
2. What shape is made up of six square faces?
A. a cube
B. a cylinder
C. a cone
D. a sphere
3. Which of the following pictures best shows a rectangular prism?
A.

C.

B.

D.


Liz and Derek are building a model of a spacecraft. They are about to glue the rocket booster to the main body.

4. How many faces does the rocket booster have?
5. How many vertices does the rocket booster have?
6. What shape is the rocket booster?

## Excellent Job!



## (A) Answers for this page:

1. D
2. A
3. A
4. An A+ answer: "The rocket booster has 6 faces."
5. An A+ answer: "The rocket booster has 8 vertices."
6. An A+ answer: "The rocket booster is a rectangular prism."

Did your child get the correct answers? If so, ask your child to find these shapes in everyday objects around the house.

Did your child get any of the answers wrong? If so, review the incorrect answers. Ask, "How many flat sides does this shape have?" and "How many corners?" Then, explain to your child that the flat sides are called "faces" and the corners are called "vertices."

## Watch Out!

Third graders are just beginning to learn about three-dimensional figures. They are more familiar with two-dimensional shapes, and so they often get them all mixed up. For example, when looking at a sphere, your child might call it a circle. Remind your child that two-dimensional shapes are flat, like a piece of paper. Three-dimensional shapes are solids, like people and furniture. Review the pictures of shapes and ask your child to identify each as a flat or a solid.

## What to Know

Review these skills with your child this way:

- A two-dimensional figure has length and width.
- A three-dimensional figure has length, width, and height.
- A face is a flat side of a three-dimensional figure.
- A vertex is a point at which three faces of a three-dimensional figure meet.



## Your child can call two-dimensional shapes "flat shapes" and threedimensional shapes "solid shapes."

Your child can use solid shapes to build models. Engineers and carpenters need to know the number of faces and vertices in three-dimensional shapes too.


Point out that the corners of the sand castle are called vertices. Then point out that the flat sides are called faces.

## Three-Dimensional Figures

| Sphere | No straight sides |  |
| :---: | :--- | :--- |
| Cube | Six square faces, all same size | One circular face |
| Cone | Two circular faces |  |
| Cylinder | Six rectangular faces |  |
| Rectangular Prism |  |  |
| Triangular Prism | Two triangular faces, the same <br> size, and three rectangular faces |  |

> Have your child find these threedimensional shapes in your home. Ask your child to find as many of each type of three-dimensional shape as possible. Then, look at all of the examples of each type of shape. Have your child count the faces. For example, when looking for rectangular prisms, your child might find a tissue box and a book.
> Then, your child can count the faces of the tissue box and the book to see that rectangular prisms always have six faces.

## Third Graders Are...

Third graders are active and like to learn by exploring with lots of hands-on experience. The nice thing about threedimensional shapes is that they don't have to be abstract -there are so many examples we can point to around us.

## On Your Way to an "A" Activities



Type: Speaking/Listening
Materials needed: paper and pencil
Number of players: 2 or more

Play "Guess My Shape." Pick a three-dimensional shape and describe it, one clue at a time, to the other players. The other players should try to guess the shape with as few clues as possible. When another player correctly guesses the shape, switch roles. The player that guessed correctly picks and describes a three-dimensional shape, and you try to guess it.


Type: Active
Materials needed: things from around the house (juice boxes, canned food, toilet paper rolls, and so on), pencil, tape, glue, crayons or markers
Number of players: 1 or more
Find household materials in different three-dimensional shapes. Write the name of the shape on each thing you find. For example, if you are using a can of food, you would write "cylinder" on it. Then, build something using only household materials. You could build a car from the future, a castle, a spaceship, or something else. Use tape and glue. Color what you built!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Liz and Derek are going on a Shape Scavenger Hunt. Help them find all the shapes. Write the number of the object you find for each shape.


Sphere $\qquad$
Rectangular prism $\qquad$
Cube $\qquad$
Cylinder $\qquad$

Answers: Sphere—2; Rectangular prism—6; Cube—4; Cylinder—1

## Symmetry

Symmetry is in art, design, music, and nature. Your child sees symmetry in clothing, furniture, advertisements...everywhere! Your child can already tell the difference between an asymmetrical shape, like a blob, and a symmetrical shape, like a star. Now your child is learning how to name what he or she sees as "symmetry."

Not only can symmetry be beautiful, it is also useful. By starting to understand symmetry, your child is starting to understand how to sort, organize, and classify shapes. Your child can also apply symmetry to school projects, sports, and other fields. For example, if your child has ever made a Valentine's Day heart by folding paper and cutting half a heart, then your child has used line symmetry. While it is easy to see how symmetry is useful in arts and crafts, working on symmetry activities is also a great way to introduce your child to some of the geometry he or she will learn later in school.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- pencil
- paper
- paint
- paintbrushes
- scissors
- tape
- mirror
- crayons or markers


## Jump Right In!

Directions: Work through questions 1-3.

1. How many lines of symmetry does a square have?
A. 1
B. 2
C. 3
D. 4
2. Which of these shows the correct line of symmetry?
A.

B.

C.

D.

3. Draw the other half of this picture.


Excellent Job!


## (A) Answers for this page:

1. D
2. B
3. An A+ answer: Your child should have drawn the other half of the "T."

Did your child get the correct answers? If so, ask your child how. Your child may have drawn pictures, mentally imagined the lines of symmetry, solved the problem in parts, or used other problem-solving methods. Tell your child that there are many ways to solve problems. Encourage your child to explore different problem-solving methods.

Did your child get any of the answers wrong? Go back and work on the first question together. Then, ask your child to work on the second question and explain each step he or she takes. If your child does well with the second question, ask your child to finish the third question independently. Then, check your child's work.

## Watch Out!

Your child might think that shapes always have only one line of symmetry. But many shapes have more than one line of symmetry (for example, the square in question 1). If your child is confused, cut a square out of paper. Ask your child to fold the square in half to show a line of symmetry. Then, open the square and use a pencil to draw a line where the fold was. Ask your child to fold the square again to find another line of symmetry. Work with your child to see how you can fold the square in four different ways and find four different lines of symmetry (fold top to bottom, side to side, top left corner to bottom right corner, and top right corner to bottom left
corner). When you are done, ask your child to count the lines of symmetry you drew with the pencil.

## What to Know...

Your child might be just beginning to develop her understanding of the term symmetry, but she probably has a practical sense of symmetry from games, arts-and-crafts, street signs, and everyday life.

Review this skill with your child this way:

- A line of symmetry is the fold line for symmetry. If you folded a shape along its line of symmetry, then the two halves would match up. Shapes can have more than one line of symmetry.


> Ask your child to point to details in the left half of the house that are the same in the right half of the house. You can fold the drawing along the line of symmetry, too.

## हु Study Right

Conducting research can help your child learn. Research symmetry with your child. Use a folder with two pockets. Label the left pocket "Asymmetrical" and the right pocket "Symmetrical." Collect pictures as examples of asymmetrical and symmetrical shapes. Work with your child to
identify the shapes and to put them in their proper pocket. Go through the pictures with your child and discuss why one picture has symmetry while another does not.

## On Your Way to an "A" Activities



Type: Arts and Crafts
Materials needed: paper, paint, paintbrushes
Number of players: 1
Fold the paper in half, then open it. Paint on one half of the paper. Before the paint is dry, fold the paper again. Rub the paper together. Then, unfold. Some of the paint should have rubbed off so that your painting is now symmetrical!


Type: Arts and Crafts
Materials needed: paper, scissors, tape
Number of players: 2 or more
Play "Starry, starry night." Fold a piece of paper in half. Then, cut out half of a star that includes part of the fold. When you open up the paper, you'll have a whole, symmetrical star. Try again, but this time, fold the paper twice. Cut out part of a star that includes both folds. Try making stars with many folds. Then, hang the stars around your room!


Type: Reading/Writing
Materials needed: paper, pencil, a mirror Number of players: 1

In the book Alice in Wonderland, there is a poem written so that it could be read only in the mirror. Write your first name so that it can be read only in the mirror. Start with one letter at a time and see what it looks like in a mirror. Then, try writing a secret, a story, or a poem that can be read only in a mirror!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Look at the pictures below. Find as many lines of symmetry as you can in each picture. Draw them.


Answers: 1. 3 lines of symmetry; 2. 2 lines of symmetry; 3. 1 line of symmetry

## Using Maps

No doubt you have traveled with your child to an unfamiliar destination. Knowing how to find things using a map or a grid is useful in everyday life. Right now, your child uses this skill mainly in math class. But you want your child to develop a good sense of direction and understand how to use maps, if necessary. In the long run, this is a basic, vital skill.

In addition, your child's ability to use maps will help him prepare for higher-level mathematics, specifically for working with coordinate grids. How well your child learns to figure out the relation between things (the library is across the street from the school) can affect how well your child can figure out the relation between lines and parabolas, the sine curve and the $y$-axis, and so on.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!
$\Leftarrow \square$

Here's what you'll need for this lesson:

- graph paper
- crayons or markers
- pencils
- die
- 6 index cards
- large piece of paper (or small pieces of paper and tape)


## Jump Right In!

Directions: Work through questions 1-4 based on the following map.


1. Where is the library?
A. F7
B. C3
C. F6
D. E6
2. What is located at E6?
A. City Hall
B. the school
C. the library
D. the hospital
3. What two buildings are located on line C?
4. What two buildings are located on line 4?

## (A) Answers for this page:

1. A
2. D
3. An A+ answer: "The Post Office and City Hall are located on line C."
4. An A+ answer: "The School and the Ice Cream cart are on line 4."

Did your child get the correct answers? If so, find out what your child finds easy and what your child finds difficult about using grids. Ask, "Which of these questions was easiest to answer? Which was hardest to answer?"

Did your child get any of the answers wrong? If so, go over a question together. For example, review question 1. Ask him to put both pointer fingers on the library. Then, move one pointer finger down and one across. Ask your child what letter and number his fingers went to. This is the correct answer.

## Watch Out!

Many third graders are inexperienced with maps and grids, so it's easy for them to become confused. Sometimes they think that the name of the place is the location, instead of the picture or point locating the place. For example, your child may have thought that the library was located where the word "Library" appears instead of where the point appears. Tell your child that it's okay to use their fingers when working with maps. Your child can put a finger on the picture of the library and then move their finger down the line to find the letter location. Then, your child can put a finger on the picture of the library again and move it to the left to find the number location.

## What to Know...

Children know how to find their way around. They often know secret places in the backyard or neighborhood. Now your child is learning how to locate things using maps and grids.

Review this skill with your child this way:

- A grid is a pattern of lines that cross each other.

Amusement


Ask your child to identify the location of each ride at the Amusement Park. Then, ask your child to remember a time when he or she saw or used a map.

Sometimes children learn best by trying something out. Work with your child to make a map of a room in your house, such as the kitchen. (If you have a room with a tiled floor, then use that room. You and your child can think of the grout between the tiles as the lines of a grid). Then, use the map to give each other directions to places in the room. For example, you might
tell your child to move forward 3 lines and to the left 2 lines to find the refrigerator. If you have a map of your neighborhood, use it when you and your child do errands. This will solidify your child's understanding of grids and maps and help him locate places on maps more easily.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: graph paper, crayons or markers, pencils Number of players: 2

Play "Sunken Treasure." You and the other player should each make a map of the ocean. Make the map like the one on this page so that you have 10 lines labeled A through J and 10 lines labeled 1 through 10. Put a sunken treasure at a point on your map. Don't show the other player your map.

The goal is to find out where the other player's treasure is before the other player finds out where your treasure is. Do this by taking turns guessing locations of the treasure. For example, say, "I think your treasure is at C3." If you are correct, you win. If not, mark C3 on your map to show that the other player's treasure isn't there. Keep taking turns and guessing locations until someone locates a treasure.

When we make connections between what we are learning and what we see around us or already know, we remember more. Help your child make connections to what he or she is learning about maps by pointing out whenever you use or see maps or grids in everyday life. For example, when planning a family trip, bring out the map. Show your child how you locate your destination on the map. Often libraries, museums, zoos, and other vacation sites offer free maps. Make sure to get your child a copy of a map that he or she can use.


Type: Active
Materials needed: a large piece of paper (as large as a rug) or small pieces of paper and tape, a number cube, 6 index cards, pencils
Number of players: 2 or more
Make your own playing area. Create a large grid using a very large piece of paper. Along the bottom of the paper, write the letters A through F. Draw lines from these letters across the paper. On the side of the paper, write the numbers 1 through 6. Draw lines from these numbers across to the other side.

Then, write the letters A through F on the index cards so that there is one letter on each index card. Shuffle the cards and put them facedown. Make the first round the "Left Foot" round. The first player picks the top card and rolls the die. This player has to move the left foot to this location. For example, if the player picked an F and rolled a 5 , this player should put his or her left foot at F5. Next, all the other players play by picking cards and rolling the die. Keep playing. Each
round can be different (right foot, left hand, right hand). Whoever can stay the longest without falling wins!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Draw each building on the map where it should be.

## Grocery store: C5 Gas station: E10 <br> School: D1 <br> Zoo: G1 <br> Art store: A8 <br> Pizza parlor: J2



## Slides, Flips, and Turns

slides, flips, and turns occur constantly around us in everyday life. child also studies them in math class. And yet, your child might not realize that the stuff of everyday life and math class are actually connected. Sometimes children don't know how to connect their everyday experiences with what they learn in math class. Your child might not realize that the examples of slides, flips, and turns in math class are examples - not the only ways these things can occur. As a result, if your child is shown a picture of a triangle turning, he might just resign himself to thinking that all examples of turns involve triangles or happen in math class. Your child might not know that the computer graphics in video games and animated films are created using slides, flips, and turns. Your child might not realize that the turning of a tire on a bike is, in fact, an example of a turn.

Help your child learn that the terms slide, flip, and turn don't describe the shapes used in the examples-they describe the way the shapes were moved. Your child knows how to slide (at the slide in the park), flip (as in flipping a coin or watching an acrobat flip), and turn (turn the wheel of a bike). Now, your child needs to connect this knowledge to the geometric shapes and coordinate grids in math class.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

- pencils
- crayons or markers

Directions: Work through questions 1-4.

1. Which picture shows a flip?
A.

C.

B.

D.

2. Which picture shows a slide?
A.

c.


D.

3. Which picture shows a turn?
A.

C.


D.

4. Draw your favorite animal. Now, draw how the picture of your animal looks after you slide, flip, or turn it.

5. B
6. C
7. D
8. An A+ answer: Your child should draw a picture of an animal and then draw how the picture would look after it was slid, flipped, or turned.

Did your child get the correct answers? If so, ask your child to point out all the examples of flips, slides, and turns in the answer choices.

Did your child get any of the answers wrong? If so, point out that all the answer choice Bs are examples of flips, all the answer choice Cs are examples of slides, and all the answer choice Ds are examples of turns. Ask your child to look at each set of pictures and describe the difference between a slide, a flip, and a turn.

## Watch Out!

Sometimes, children at this age don't pay enough attention to all the details. A child may not look at the labels assigned to the corners of a square, for instance. He or she may not notice if those labels are in the same place (for a slide) or mirror images of what they were before (for a flip). Explain to your child why it is important to look at all the labels. Children may not be able to differentiate otherwise.

Cut out a square and label the corners A, B, C, and D. Practice turning the square to show that the letters stay in the same order with respect to each other but move as the square moves. Next, flip the square and show how the
letters are a mirror image of where they were before the flip. Finally, slide the square to show that the letters stay in the same order with respect to each other, but move as the square moves.

## What to Know...

Review these skills with your child this way:

- To slide a shape means to move it along a line.
- To flip a shape means to move it over a line.
- To turn a shape means to move it around a point.
- This is a line.
- This is a point.

Your child has to slide, flip, and turn shapes when playing with a puzzle of outer space.


Ask your child to use a puzzle piece to practice sliding, flipping, and turning.

## On Your Way to an "A" Activities



Type: Active
Materials needed: none
Number of players: 3 or more
Play "Twist and Shout, Now Slide, Flip, Turn, and Shout." Everyone stands in a group. One player gets to be the leader and stands in front, facing everyone. The leader makes a funny shape with her body and face. This means the leader could wrinkle her nose, scratch her armpits, balance on one leg, or anything else. Then, the leader gives the group a command by saying "slide," "flip," or "turn." Everyone must follow the command. If the leader says "slide," everyone must move in a single direction. If the leader says "flip," everyone must turn with their backs to the leader. If the leader says "turn," everyone must spin around. While doing this, everyone must keep the position the leader had. If anyone makes a mistake, that player is out of the game. Keep playing until only one person is left. This person becomes the leader, and the game starts again.

## (g) Study Right

Often, children remember the stuff they had to figure out for themselves. If during the activities your child forgets what "slide," "flip," or "turn" means, ask him or her to try the following things:

- Talk about the terms with the other players. Do any of the other players know what these terms mean?
- Look it up in this book.
- Practice using shapes to figure out what the terms mean.

If your child is still confused, then help him or her look up the terms in this book to find the answers.


Type: Game/Competitive
Materials needed: none
Number of players: 3 or more
Play "Clues." Begin by playing a "Turn" round. Each player has to think of an example of a turn. Then, this player gives clues to the other players. The other players have to figure it out. For example, a player might realize that the movement of a tire on a car is an example of a turn. This player might give the clues "I'm round," "I'm on a car," and "I'm made of rubber." The first player to figure out the example gets a point.

Once every player has used their example of a turn, move on to the "Slide" round and the "Flip" round. At the end, the player with the most points wins.


Type: Active
Materials needed: none
Number of players: 3 or more
Play "How Good Is Your Memory?" One player gets to be "It." This player looks at everything in the room and then leaves the room. Then, other players move three things in the room. They must move things to show a turn, a flip, and a slide. For example, they could turn a pillow, flip a book, and slide a lamp over a few inches. Then, "It" comes back and has to find the three things that were changed. If this player has difficulty, the other players can give hints. Once all three things are identified, everything in the room should be put back into place. Then, a different player gets to be "It."

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil and some crayons or markers!
Directions: These puzzle pieces have to be slid, flipped, or turned to fit correctly into the puzzle. Figure out what has to be done.


1. $\qquad$
2. $\qquad$
3. $\qquad$

Answers: 1. Slide; 2. Flip; 3. Turn

## Patterns with Shapes

Kids make sense of patterns very early on. Patterns in sounds allow them tolearn language. Routines help them learn how to navigate their way around in the world. And children naturally notice patterns. Your child knows that the seasons follow a pattern: spring, summer, fall, winter. Also, if your child sees shoelaces with a printed pattern that goes, "pencil, book, pencil, book," then your child probably knows that the rule is "pencil, book."

But now your child is working with more complicated patterns. As your child grows, he'll become ready to handle these extra details. But first he has to learn that these details are important. And he has to learn how to tap into all his natural energy to focus on the details in complicated patterns. For example, your child might notice extra details in a pattern on shoelaces, like "little pencil, little book, big pencil, big book." He might not have paid attention to these details before. And as you know, little details are important. Honing your child's ability to process these details can make a big difference!

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- pencils


## Jump Right In!

Directions: Work through questions 1-4.

1. What is the next shape in this pattern?

A. a square
B. a triangle
C. a hexagon
D. an octagon
2. What shape is missing from this pattern?

A.

B.

c. $\square$
D.


Ryan and Kiah are making bookmarks with stickers.

3. Look at Ryan's bookmark. What is the rule for the pattern on Ryan's bookmark?

Draw the shape that will happen next.
4. Look at Kiah's bookmark. What is the rule for the pattern on her bookmark?

Draw the shape that is missing.


## Checking In

## (A) Answers for this page:

1. B
2. A
3. An A+ answer: "The rule for Ryan's bookmark is 1 swirl shape, 1 big smiley face, 1 little smiley face. There will be a swirl shape next."
4. An A+ answer: "The rule for Kiah’s bookmark is 2 bananas, 1 monkey. The shape that is missing is a banana."

Did your child get the correct answers? If so, ask your child to name the rule for each of the patterns. Make sure your child can name the rule and didn't just guess the correct answers. You can also ask your child to draw the next several shapes in each pattern.

Did your child get any of the answers wrong? If so, ask him to identify the rule for each pattern. If your child does this incorrectly, then he might have difficulty with identifying the rules to patterns. If your child identifies the rules correctly, then he may have difficulty applying the rule to predict the next shape or to identify a missing shape in a pattern.

## Watch Out!

Sometimes children rush to identify the rule to a pattern before really looking at all the shapes in the pattern. For example, with question 4, your child may have looked only at the first few shapes in the pattern and identified the wrong answer as a result. Explain to your child that shapes repeat in a pattern. Using question 4, say, "There are 2 bananas followed by a monkey. Then, there is another banana, which starts the pattern over
again." Instruct your child to circle the 2 bananas followed by the monkey, and explain to your child that " 2 bananas, 1 monkey" is the rule.

## What to Know...

Your child sees patterns all around-in paper towels, furniture, rugs, wallpaper, clothes, and so on.

Review these skills with your child this way:

- A pattern is a series of numbers, figures, or pictures that follows a rule.
- A rule is a statement that tells how the items in a pattern are related.

You or your child might have clothes with patterns like these.


Ask your child to circle the repeating shapes. Tell your child that this is the pattern.

## Checking In

Make sure your child understands how to use a rule to predict the next shape in a pattern. Explain that the last shape on the scarf is a nest, so the next shape would be the first shape in the pattern. Ask your child to predict the next shape that should happen (bird).

You and your child might see a sign with a pattern that is missing a piece.


> Point out to your child that there is a shape missing in the pattern (right before the last balloon). Ask your child to look at the pattern and circle the repeating shapes. Tell your child that the shapes that repeat make up the rule to the pattern. Now, ask your child to identify the missing shape (party hat).

Make sure your child understands how to use a rule to identify a missing shape. Point out that the missing shape falls between a cake and a balloon. Ask your child, "What comes after the cake and before the balloon in the rule for this pattern?" (Party hat)

## Third Graders Are...

Third graders are natural observers, but their observations still need to be refined. Your child may observe a shape without paying attention to the size of the shape or its color. Perhaps she observes the size but not the shape or color. Your child needs practice and experience comparing and contrasting things so these subtleties are observed.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: none
Number of players: 2 or more
Play the game "I Spy" with shapes. You can play this game anywhere (at home, at school, in the car). Look for any kind of pattern. When you see one, you can say, "I spy a pattern with circles." The other player then needs to see where the pattern is and find a new one with different shapes.


Type: Active
Materials needed: none
Number of players: 2
One player describes a pattern of behavior: jump twice, hop once, jump twice, hop once. The other player performs this pattern. Then, switch roles.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil! Refer to your Activities PDF for a printable version of this activity.

Directions: Ryan and Kiah are now making collars for their cats and dog. Draw the shapes needed to finish the patterns.


Collar


Collar


Collar

Answers: Spot's collar—a fish, a bird; Waggy's collar—a black diamond, a white circle;
Mitten's collar-a white mitten, a smiley face

## Patterns with Numbers

Y
ou and your child began exploring number patterns years ago. Wherr you first taught your child to count $1,2,3, \ldots$, you were teaching her a number pattern. The rule for this pattern is simple-she just has to add one to the previous number. Perhaps you haven't talked about this pattern in depth, but undoubtedly you have helped your child learn her numbers, and you didn't skip any.

But there are many more patterns in the world. Some are natural. For example, there is a type of cicada that comes out to mate only every 17 years! There are some man-made patterns in the world, too. For example, box seating at a stadium may be numbered by 5 s (Box 5, Box 10, Box 15, and so on). Houses may be numbered in a pattern with the rule "add 2" (124 Oak Lane, 126 Oak Lane, 128 Oak Lane, and so on). Sometimes, your child has to figure out the number that is missing or the number that will come next. To do this, your child needs to know how to figure out the relationship between numbers in a pattern.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!


Here's what you'll need for this lesson:

- pencils
- crayons or markers


## Jump Right In!

Directions: Work through questions 1-6.

1. What number is missing from this pattern?
$12,14,16$, $\qquad$ , 20, 22
A. 14
B. 16
C. 18
D. 24
2. What is the next number in this pattern?
$11,14,17,20$, $\qquad$
A. 8
B. 18
C. 19
D. 23
3. What is the rule for this pattern?
$22,18,14,10,6,2$
A. add 4
B. subtract 4
C. add 2
D. subtract 3

Drake and Candice were going to order a set of comic books. They needed to figure out how long it would take for their comic books to be delivered, but their order form was damaged.

| Number <br> of Comic <br> Books | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Days to <br> Ship | 3 | 5 | 7 |  | 11 | 13 | 15 |  |

4. Look at the number of shipping days. These numbers form a pattern. What is the rule to this pattern?
5. If Drake and Candice ordered 4 comic books, how many days would it take for the comic books to ship?
6. If Drake and Candice ordered 8 comic books, how many days would it take for the comic books to ship?

(A) Answers for this page:
7. C
8. D
9. B
10. An A+ answer: Add 2
11. An A+ answer: 9
12. An A+ answer: 17

Did your child get the correct answers? If so, ask, "Did you figure out the answer and then look at the answer choices? Or did you look at the answer choices and pick the one that fit best?" If the latter, ask your child to look at each question again, cover up the answer choices with his hand, and find the answers.

Did your child get any of the answers wrong? If so, review finding and applying the rules to patterns. Ask your child to identify the rule for question 1. Explain that the rule describes the relationships between the numbers. So, for example, with question 1, adding 2 to the first number gets the second number $(12+2=14)$. This is true of all the numbers in a pattern $(14+2=16,20+2=22)$. Now, explain that to find the missing number, you have to add 2 to the number before it. Ask your child to find the answer to $16+2$.

## Watch Out!

Some third graders have seen patterns only with addition rules, and they may not realize that patterns can also be made using subtraction. Review question 3 with your child. Point out that the numbers get smaller, so
addition can't be the rule. Ask your child what she would do to 22 to get 18 (subtract 4). Then, check this rule by making sure it can be used to get the other numbers in the pattern.

## What to Know...

Review these skills with your child this way:

- A pattern is a series of numbers, figures, or pictures that follows a rule.
- A rule is a statement that tells how the items in a pattern are related.

Your child might have read about a type of cicada that comes out once every three years.

Years cicadas were seen: 2005, 2008, 2011, 2014, , 2020

Ask your child what to do to 2008 to get 2011 (add 3 years). Tell her to check to see if she can get the other years this same way, and if so, then this is the rule. Ask your child to use the rule to find the missing year (2017).


15


12


9

$-$

Rule: Subtract 3

Ask your child if the number of holes in the birdhouses is increasing (addition) or decreasing (subtraction). Then, ask your child to use the rule to find out how many holes there are for birds in the last birdhouse (6).

## On Your Way to an "A" Activities



Type: Active
Materials needed: none
Number of players: 2 or more
The first player thinks of a pattern. The pattern should involve addition. This player can clap out the pattern. Then, the other players need to identify the rule. For example, the first player may have clapped 3 times, 5 times, and 7 times. Then, the other players would have to identify the rule as "add 2." The first player to identify the rule gets to be the one to clap a new pattern. Keep playing until everyone has had a chance to clap a pattern.


Type: Active
Materials needed: none

Number of players: 3 or more
Everyone sits in a circle. One player comes up with a rule involving subtraction. This player says the rule and a number (it should be a large number). Then, this player calls out another player's name. The player called on has to say the next number in the rule and call out a different player's name. For example, Tim might say, "Subtract 3, 24, Sally." Then, Sally would subtract 3 from 24 and pick another player, "21, Bill." Bill would continue. Keep playing until you can't continue the pattern or until everyone has had a chance.


Type: Arts and Crafts
Materials needed: crayons or markers

## Number of players: 1

Come up with a rule using addition. Starting with 1 or 2, figure out all the numbers in this pattern up to 100. Color these numbers in. Look at the design you made.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Now, come up with a rule using subtraction. Starting with 99 or 100, figure out all the numbers in this pattern. Color these numbers in. Look at the design you made.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: Match each pattern to its rule.

1. $3,7,11,15, \ldots$
A. Subtract 2
2. $19,16,13, \ldots$
B. Add 4
3. $26,31,36, \ldots$
C. Subtract 3
4. $12,10,8, \ldots$
D. Add 5

Answers: 1. B; 2. C; 3. D; 4. A

## Length and Perimeter

Measurement is one of those concepts in which children are naturally interested. Children often want to know who is taller and who is shorter. As they get older, they refine their measurement skills and begin using the tools of measurement. Third graders are interested in these tools. Using rulers and tape measures to measure in different units gives them a sense of satisfaction.

In math class, your child might learn about different units. At home, your child can further explore measuring with different units. Your child can continue measuring his height, but he also can measure other things around the house-how much wrapping paper is needed to go around a gift, how high up to put the basketball hoop, and so on. Not only are these pretty interesting things to your child, but measuring stuff at home gives your child concrete experiences applying his new skills.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

## \&

Here's what you'll need for this lesson:

- paper
- pencils
- ruler with both American units and metric units
- string
- books of varying sizes
- chalk


## Jump Right In!

Directions: Work through questions 1-5 based on the picture below.

Jay and Celia have plans for building a birdhouse.


1. The birdhouse project came with 1 meter of thick string. How many centimeters are in 1 meter?
A. 3 centimeters
B. 12 centimeters
C. 36 centimeters
D. 100 centimeters
2. Celia cut 1 yard of rope. How many inches are in 1 yard?
A. 12 inches
B. 24 inches
C. 36 inches
D. 100 inches
3. Jay glued the peg below the doorway. How long is the peg?

A. 2 inches
B. $2 \frac{1}{2}$ inches
C. $3 \frac{1}{2}$ inches
D. 4 inches
4. The front of the birdhouse is 14 inches by 9 inches. What is the perimeter of the front of the birdhouse?
5. The door to the birdhouse is 10 centimeters by 7 centimeters. What is the perimeter of the door to the birdhouse?

## Excellent Job!



## (A) Answers for this page:

1. D
2. C
3. B
4. An A+ answer: 46 inches
5. An A+ answer: 34 centimeters

Did your child get the correct answers? If so, ask your child to share her experiences measuring length. Has she measured in inches, centimeters, meters, and yards-or only with inches?

Did your child get any of the answers wrong? If so, which ones? Your child might need a review of the following: using a ruler, converting between American units, converting between metric units, and/or finding perimeter. Start out by reviewing how to use a ruler. Point out that the left edge of the peg in question 1 lines up with the 0 on the ruler. Then, tell your child to put his finger on the right end of the peg and move his finger down to the ruler to find the peg's length.

## Watch Out!

Some third graders have measured things only to the whole inch or whole centimeter. Your child may not be familiar with measuring to the half inch or half centimeter. If your ruler is wooden, guide your child to label all the half-inch or half-centimeter marks correctly ( $\frac{1}{2}$ in., $1 \frac{1}{2}$ in., $2 \frac{1}{2}$ in., etc., and
$\frac{1}{2} \mathrm{~cm}, 1 \frac{1}{2} \mathrm{~cm}, 2 \frac{1}{2} \mathrm{~cm}$, respectively). If your ruler is plastic, put a piece of masking tape below the measurement marks and have your child write on the tape.

## What to Know...

Review these skills with your child this way:

- The American system of measurement is a system of measurement commonly used in the United States. Inch, foot, and yard are units of length in the American system of measurement.
- The metric system of measurement is a system of measurement used around the world. Centimeter and meter are units of length in the metric system of measurement.
- Perimeter is the measure of the distance around a figure. To find the perimeter, you can add together the length of all the sides of the figure.

Your child could measure to find the perimeter of a camping badge.

$2.25 \mathrm{~cm}+2.5 \mathrm{~cm}$
$+2.25 \mathrm{~cm}+2.5 \mathrm{~cm}=9.5 \mathrm{~cm}$

# Ask your child to find the length of the bottom of the badge and the side of the badge. Then, ask your child to find the perimeter. 

When shown the length of two sides of a rectangle, your child might forget to add the lengths of all four sides to find the perimeter. Remind your child that the opposite sides of a rectangle are equal. Then, have your child use this information to label the length of each side of the badge in the picture.

| American Units | Metric Units |
| ---: | :---: |
| 12 inches = 1 foot |  |
| $y n n$ | inches = 1 yard |
| 3 feet = 1 yard |  |

Take out an inch ruler. Ask your child to count out the number of inches in a foot and in a yard. Then, take out a meter ruler and ask your child to count out the number of centimeters in a meter.

## ह Study Right

Practice makes perfect. Provide your child with plenty of practice using American units and metric units. Often, kids love to measure how they grow, so keep a chart of your child's growth. Ask your child to measure his
or her height in inches and in centimeters. Then, ask your child to find a part of the body that measures 1 foot, 1 meter, or 1 yard. List these in the chart, too.

> Third Graders Are ...
> Third graders are developing their motor control and handeye coordination. So, using a ruler to measure down to the half inch or quarter inch can sometimes be quite a process! Encourage your child to keep trying. If your child has difficulty measuring to a quarter inch, let him mark the ruler with a pencil and then look at the measurement or measure things that are easier (such as putting the ruler on a table to measure a fork, instead of holding up a ruler to measure a lampshade).

## On Your Way to an "A" Activities



Type: Active
Materials needed: ruler, books of varying sizes, string, a pencil Number of players: 1

You can find the perimeter of the cover of a book. With one hand, hold an end of the string to the edge of the cover. Then, wrap the string around the edges of the cover until it meets your hand. Pinch the end of the string. Mark this point on the string with a pencil. Then, measure the string to the mark.


Type: Arts and Crafts
Materials needed: chalk, paper, pencil, ruler
Number of players: 2 or more
Go outside when it's sunny. One player should stand in the sun so that there is a shadow. The other player draws a chalk line around the shadow. Then, switch turns so each player's shadow is drawn in chalk. Now, measure the length of the shadows. Write down the lengths on a piece of paper. Do this again a few other times later in the day. Notice how the lengths of your shadows change!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a penci!!
Directions: How long do you think each thing is? Take your best guess. Then, match each thing with its length.

1. The length of a football field $\mathbf{A}$. about 10 meters
2. The width of a spider
B. about 2 cm
3. The perimeter of a pool
C. about 100 yards
4. The width of a chair
D. about 2 feet

Answers: 1. C; 2. B; 3. A; 4. D

## Charts and Graphs

Everywhere your child looks-in books, in magazines, in information. It is both common and useful to organize information in this way. That is why it's important for your child to be able to read the information in charts and graphs. It's also important for your child to be able to create a chart or graph to convey information.

Charts and graphs are not just for school. They are used in research and development, scientific research, and business. They are so ubiquitous, in fact, that if your child asks, "When will we ever use this outside of school?" you can easily answer by simply opening a newspaper or magazine and finding the charts and graphs used in it.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- pencil
- paper
- crayons or markers
- sports game on TV, board game, or video game
- poster paper
- tape
- string


## Jump Right In!

Directions: Work through questions 1-5.

| Player | Number of <br> Baskets |
| :---: | :--- |
| Fran | HHI I |
| Joe | $\\|\\|$ |
| Louis | HH II\\| |
| Denise | $\\|\\|\\|$ |
| Collin | $\\|\\|\\|$ |

1. Who scored the most baskets?
A. Fran
B. Louis
C. Denise
D. Collin
2. How many baskets did Denise score?
A. 4
B. 6
C. 7
D. 8
3. Which two players scored the same number of baskets?
A. Denise and Collin
B. Fran and Joe
C. Louis and Denise
D. Fran and Louis
4. Look at the tally chart on this page. Complete the pictograph below to show the same information.

Player's Baskets

| Player | Number of Baskets |
| :---: | :--- |
| Fran |  |
| Joe |  |
| Louis |  |
| Denise |  |
| Collin |  |

$$
\text { Key } \approx 2 \text { baskets }
$$

5. Now, complete the bar graph below to show the same information.

Player's Baskets


## Excellent Job!



## (A) Answers for this page:

1. B
2. A
3. A
4. An A+ answer: Your child should draw 3 basketballs for Fran, 1 basketball for Joe, 4 basketballs for Louis, 2 basketballs for Denise, and 2 basketballs for Collin.
5. An A+ answer: Your child should draw a bar to 6 for Fran, a bar to 2 for Joe, a bar to 8 for Louis, a bar to 4 for Denise, and a bar to 4 for Collin.

Did your child get the correct answers? If so, find out if your child looked at all the information in the charts and graphs or just the information needed to find the correct answer. Ask, "What is the title of the bar graph for question 5? How are each of the bars labeled? What other words do you see?" Make sure your child practices looking at all the information.

Did your child get any of the answers wrong? If your child answered question 1, 2, or 3 wrong, then make sure she realizes that a set of 4 tally marks bundled with a hash mark across them represents 5. If your child answered question 4 wrong, then she might have assumed that 1 basketball represents 1 basket. Point out the key in the pictograph. If your child answered question 5 wrong, then she might not have paid attention to the numbers on the graph. Review the questions together.

## Watch Out!

Sometimes, third graders forget to follow all the steps. Tell your child to create a list of steps necessary to answer a question. Then, have him follow
his own list. For example, for question 4, your child may have remembered to use the key sometimes, but not all the time. Your child could write a list of steps like the following:

- Look at the name on the tally chart.
- Find out the number of baskets.
- Use the key to figure out how many basketballs I should draw.
- Draw the baskets next to the same name in the pictograph.

Now, your child just needs to look at the steps for every name in the pictograph.

## What to Know

Your child has probably seen charts and graphs in the newspaper and at school. Review tally charts with your child this way:

- A tally is a way of counting by making a mark for each item counted.
- A tally chart is a table that shows data with tally marks.

You and your child might use a tally chart at home to show information.

## Fruits and Vegetables

Eaten Today

| Person | Servings |
| :---: | :--- |
| Mom | HH l |
| Dad | $\\|\\|\\|$ |
| Brother | $\\|\\|\\|$ |
| Me | $\mathrm{HH}\\|\\|$ |

> Ask your child to count the number of tally marks to find out how many servings "Mom" ate today. Do the same for the other people in the chart.

Review pictographs and bar graphs with your child this way:

- A pictograph is a graph that shows data by using picture symbols. Each pictograph has a key that tells how many items each symbol represents.
- A bar graph is a graph that shows data by using bars of different sizes. Your child also may have seen pictographs and bar graphs.


## Fruits and Vegetables Eaten Today

| Person | Servings |
| :---: | :--- |
| Mom | 000 |
| Dad | 00 |
| Brother | 00 |
| Me | 00000 |

$$
\text { Key } \mathcal{O}=2 \text { servings }
$$



Ask your child to figure out how many servings "Mom" ate, as shown in the pictograph. Then, check out the bar graph.

Did your child forget to look at the pictograph’s key? If so, practice using the key with your child. Point out that "Mom" has 3 apples, and each apple means 2 servings. So, count the apples by $2 \mathrm{~s}(2,4,6)$ to show that "Mom" had 6 servings. Now, ask your child to count by 2 s to find out how many servings the brother had (4).

## On Your Way to an "A" Activities



Type: Reading/Writing
Materials needed: paper, pencils, crayons or markers, as well as a sports game on TV, a board game, or a video game Number of players: 2 or more

This is a good activity for when you are watching a sports game or playing a game. If you are watching a sports game, each player should pick his or her favorite athlete. Draw a tally chart like the one on this page. Then, fill in the tally chart with the names of the athletes. While watching the game, write tally marks to show the number of points each athlete scored. If you are playing a game, write the name of each player in the tally chart. Then, write tally marks to show the players' scores.


Type: Arts and Crafts
Materials needed: poster paper, pencils, tape, string, crayons or markers

## Number of players: 1

Make a pictograph to show information about household chores. Draw a pictograph like the one on this page. Make it about household chores and put the names of people in your house in the pictograph. What picture will you use for your key? A broom? A sponge? Tie a piece of string to a pencil, and tape the other end of the string to the poster paper. Hang this up. Then, draw a picture for each time someone completes a chore.

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab some crayons or markers! Refer to your Activities PDF for a printable version of this activity.

Directions: Scientists are keeping track of the types of animals they see. Find each type of animal and count the number you can see. Then, fill in the bar graph and color the animals in the picture.


Answers: There are 2 octopi, 6 eels, 4 striped fish, and 8 starfish.

## Range, Mode, and Mean

W
e live in a data-driven world filled with information about everyth ng from how many people live in a certain area to who likes what flavor ice cream. We use data to make key decisions: what doctor to choose, what dinner to eat, how much to pay for things, and so on.

You know that your children need to be comfortable understanding and using data. It's key for their lives today, and it's absolutely crucial for the future that they will be a part of creating.

By thinking about data in terms of range, mode, and mean, your child is starting to practice "viewing" data as a resource. The numbers aren't something to be memorized (there are too many numbers and sets of data in the world to memorize them all!)-the numbers are something to be understood. By having a chance to play around with range, mode, and mean, your child can get more comfortable looking at data, pondering it, analyzing it, and even developing opinions about it.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- paper
- pencils
- timer or clock


Directions: Work through questions 1-7.
Tabby and Jacob moved to a new neighborhood. They met their new neighbors and learned a lot about them.

1. Jacob learned how many years each of his neighbors had been living on their street.

1, 2, 2, 4, 4, 6, 9
What is the range of this data?
A. 2
B. 4
C. 7
D. 8
2. Tabby and Jacob learned that some of their neighbors have pets, and some do not. They wrote down how many pets are in each house.
$0,0,1,2,2,4,5$
What is the mean number of pets in each house?
A. 1
B. 2
C. 5
D. 14
3. Tabby found out the ages of the kids in her new neighborhood.
$5,6,7,8,9,9,12$
She wanted to find out the most common age. What is the mode of this set of data?
A. 7
B. 8
C. 9
D. 11

A new animal shelter in the neighborhood counted up how many animals were adopted on different days. Use this information to answer the questions below.

## Animals Adopted

| Day | Number of Animals |
| :---: | :---: |
| Monday | 3 |
| Tuesday | 2 |
| Wednesday | 0 |
| Thursday | 5 |
| Friday | 5 |

4. Write the data in order from least to greatest.
5. What is the least number of animals adopted on one day?

What is the greatest number of animals adopted on one day?

What is the range?
6. What is the mean number of animals adopted on one day?
7. What is the mode?

## Checking In

## (A) Answers for this page:

1. D
2. B
3. C
4. An A+ answer: $0,2,3,5,5$
5. An A+ answer: 0 animals, 5 animals, 5 animals
6. An A+ answer: 3 animals
7. An A+ answer: 5 animals

Did your child get the correct answers? If so, ask your child to explain the terms mean, median, and mode in their own words.

Did your child get any of the answers wrong? If your child got both questions 1 and 5 incorrect, then she might have difficulty with finding the range. If your child got both questions 2 and 6 incorrect, then she might have difficulty finding the mean (or average). If your child got both questions 3 and 7 incorrect, then she might have difficulty finding the mode. Review the terms and demonstrate applying them with questions 5, 6 , and 7. Then, ask your child to work on questions 1,2 , and 3 again.

## Watch Out!

Many third graders are unfamiliar with the terms mean, mode, and range. They may have heard the word mean as meaning "mean or nasty." They may have heard range referring to the stove in their kitchen. To help your child remember, give him this memory tool.

- Mean is the average. (Your child can think, "On average, I like to say what I mean," or think up another helpful sentence.)
- Mode is the thing that happens the most (both words start with "mo").
- Range is the difference between the least and greatest numbers in a set of data. (Your child can think of "Home, home on the range, where the deer and the antelope play." Tell your child that the deer and antelope walk from one edge of the range all the way to the other edge of the range. So, to find the range, your child should order the numbers from least to greatest. Then, your child should find the number on one edge, then the other edge, and then find the difference.)


## What to Know...

Review these skills with your child this way:

- The range is the difference between the least and greatest numbers in a set of data.
- The mode is the number(s) or item(s) that occurs the most often in a set of data.
- The mean is the average of the numbers in a set of data. The mean is calculated by adding the numbers in a set of data and then dividing by the number of items of data.

Your child might have heard people at football games saying a team was "down by" or "ahead by" a certain number of points. If so, your child heard people talking about range.


Order data from least to greatest: 12, 48.
Subtract the least from the greatest to find the range.
$48-12=36$
Ask your child to find the range. Check that your child found the range correctly.

Your child is familiar with mean and mode if he watches swimming, ice skating, gymnastics, dog shows, or reality TV shows. And of course, mean (average) is used all the time with school grades.

Your child may have watched a reality TV show where contestants sing and are judged.


Add the data together: $7+9+5=21$.
Divide by number of items of data to find the mean.

$$
21 \div 3=7
$$

Your child may have read about the medals won by different teams during the Olympics.

## Medals

| Teams | Number of Medals |
| :---: | :---: |
| Team A | 2 |
| Team B | 5 |
| Team C | 7 |
| Team D | 2 |

Order data from least to greatest: 2, 2, 5, 7.
Identify the value that occurs the most often to find the mode: 2.

Ask your child to find the mean and
the mode. Check that your child found them correctly.

## On Your Way to an "A" Activities



Type: Game/Competitive
Materials needed: paper, pencils, a timer or clock

Play "How Can That Be?" Each player will pick a number between 1 and 100. This will be your mean. Now, each player has to come up with a set of numbers with that mean. Each player should try to come up with as many sets as possible in 5 minutes. For example, if the mean is 16 , a player could write the data sets $1,31(1+31=32 \div 2=16)$ and $12,19,17(12+19+17=48 \div 3=16)$. When time is up, check each other's work. Each player gets 1 point for each correct set. Then, do the same with mode and range. Whoever has the most points at the end wins.


Type: Active
Materials needed: none
Number of players: 2 or more
Play "In My Head." One player thinks of 2 numbers and says them aloud. The other players work together to find the mean, median, or mode of the data set. Then, these players say the number they found but do NOT say if they found the range, mode, or mean. The first player now has to figure out if it's the range, mode, or mean. For example, if the first player says " 1 and 11," the other players could find the range and say "10." Then, the first player has to figure out that this is the range. Once the player has identified this correctly, another player should take a turn saying 2 numbers. Once everyone has had a chance, you can make the game harder by working with 3 numbers!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: At a singing contest, the judges lost some of the contestants' scores. Help figure out the missing scores!

1. The first singer got three scores. One is missing. Her average was 8 . What is the missing score?

6, 9, $\qquad$
A. 3
B. 9
C. 10
2. The second singer got three scores. One is missing. The range of his scores was 10 . What is the missing score?

2, 7, $\qquad$
A. 3
B. 5
C. 12
3. The third singer got three scores. One is missing. The mode was 3 . What is the missing score?

3, 9,
A. 3
B. 5
C. 6

Answers: 1. B; 2. C; 3. A

## Probability

Y
ou and your child see some clouds outside. Do you take an untrella? Do you not take one and risk getting wet? Rather than guess, you probably check the weather forecast, which tells you the chance of rain. Every day we rely on probabilities to guide our decisions, big and small (like what to wear). We use probabilities to inform us on a range of things (like the possible results of an election). While right now, your child doesn't want to hear the predicted results at the end of a voting day, she does need to be able to look at the information given and use it to make decisions.

Right now, your child probably has experience guessing what's likely to happen or unlikely to happen when playing games. But to develop that skill, she's got to be able to figure out what is certain, more likely, less likely, or impossible to happen. Then, she's also got to figure out how to express probability in terms of fractions. Because fractions are new to most third graders, your child will most likely benefit from review and practice.

First things first: Get a sense of what your child already knows. Turn the page and tell your child to Jump Right In!

Here's what you'll need for this lesson:

- paper
- pencils
- die
- colored paper
- scissors
- glue
- crayons or markers


## Jump Right In!

Directions: Work through questions 1-5.
Judson, May, and Nelly are getting a snack after school. They are picking a snack out of a grocery bag.


1. Judson picks a snack from the bag without looking. What is the chance that he will get a piece of fruit?
A. certain
B. more likely
C. less likely
D. impossible
2. May picks a snack from the bag without looking. What is the chance that she will get a banana?
A. $\frac{1}{4}$
B. $\frac{1}{5}$
C. $\frac{4}{5}$
D. $\frac{4}{1}$
3. Nelly picks a snack from the bag without looking. What is the chance that she will get an orange?
A. certain
B. more likely
C. less likely
D. impossible

At the fair, you can turn a spinner in a game to win a prize.

4. What is the probability that a person will win a t-shirtcertain, more likely, less likely, or impossible?
5. Write a fraction to show the probability that a person will win a goldfish.


## (A) Answers for this page:

1. A
2. C
3. D
4. An A+ answer: "The chance of getting a t-shirt is less likely."
5. An A+ answer: "The probability of winning a goldfish is $\frac{3}{6}$, or $\frac{1}{2}$."

Did your child get the correct answers? If so, ask your child to identify what snack the kids would be less likely to get (apple) and what snack they would be more likely to get (banana).

Did your child get any of the answers wrong? If so, go over the terms certain, more likely, less likely, and impossible. For question 1, it’s certain that Judson will pick fruit because only fruit is in the bag (there are no options other than fruit). It would be more likely for him to pick a banana because there are more bananas than apples. It would be less likely for him to pick an apple because there are fewer apples than bananas. It would be impossible for him to pick a piece of candy because there is no candy in the bag.

## Watch Out!

Did your child think the probability was the number of times something was shown-instead of the number of times out of the total number of possibilities? For example, with question 5, your child may have thought
the probability of getting a goldfish was 3 because goldfish show up on the spinner 3 times. Remind your child that the probability is the chance an event could happen out of the total number of possible events. There are 6 equal sections on the spinner, so the chance of getting a goldfish is 3 out of 6 , or $\frac{3}{6}$

> Third Graders Are...
> You and your child probably play games all the time. When playing cards, board games, or other games, try to talk about the game in terms of chance. For example, you could talk about the chance of landing on a certain space, rolling a certain number, or getting a certain card. Talking about chance with your child can help him understand the meaning of probability.

## What to Know

Kids have an intuitive sense of probability from playing games, sharing food, and picking chores.

Review this skill with your child this way:

- Probability is the likelihood that an event will happen. You can describe probability using words like certain, more likely, less likely, and impossible.

Your child might reach to grab a cookie and randomly pick a cookie from a cookie jar.


Probability of getting a: chocolate cookie—less likely
chocolate-chip cookie-more likely
a cookie-certain
a piece of gum—impossible

> Ask your child what type of cookie there is more of: chocolate or chocolate chip. Then, explain that because there are more chocolatechip cookies than chocolate cookies, you are more likely to randomly pick a chocolate-chip cookie. Ask your child why it's impossible to pick a piece of gum from the cookie jar.

Your child can also describe probability using numbers and fractions. Review this skill with your child this way:

- Probability can be shown as a number from 0 (no chance) to 1 (certain). Often, probability is written as a fraction. The numerator (the top
number) is the chance of the event happening, and the denominator (the bottom number) is the number of total possible events.

Your child uses probability when flipping a coin.


Number of heads: 1
Number of tails: 1
Total number of possibilities: 2 (head or tail)
Probability of getting heads: $\frac{1}{2}$
Probability of getting tails: $\frac{1}{2}$
Ask your child how many chances there are of getting a head (one) and how many possible results could happen (2-heads or tails). Then, explain how the result that you want is in the numerator and the total number of possible results is in the denominator.

## On Your Way to an "A" Activities



Type: Active
Materials needed: die, paper, colored paper, scissors, glue, crayons or markers, pencils
Number of players: 2 or more
Play "Riddler." With the other players, make prizes using the paper, crayons, markers, glue, and art supplies. Then, one player pretends to be the "Riddler." The Riddler rolls the die. Then, the Riddler asks a probability question using the number shown. The first player to correctly answer the question wins a prize. For example, if the Riddler rolls a 4, he could ask, "What is the probability of rolling a 4?" Or if the Riddler rolls a 3, he could ask, "What is the probability of rolling an odd number?"


Type: Game/Competitive
Materials needed: none
Number of players: 2 or more
Play "Chance!" Whenever you hear anyone talking about chance or probability, say "Chance!" Then, if possible, try to figure out the chance using the terms certain, more likely, less likely, and impossible. The player who says "Chance!" and correctly explains the chance first gets a point. For example, while at the mall, you might hear someone saying, "Almost all the parking spaces were taken!" A player who says "Chance!" could explain that "It's less likely to find a parking space because there are fewer open parking spaces
than taken parking spaces." The player with the most points wins!

Has your child breezed through the activities? If so, he or she can work on this Using Your Head activity independently.

## Using Your Head



Grab a pencil!
Directions: At the local fair, there is a game of chance.
Figure out how to win the different prizes, and answer the questions.


1. What's the probability of winning a bear?
2. What's the probability of winning a car?
3. The sign says, "No matter what you spin, you're a winner." Is it true that you could always win something with every spin? Why or why not?

Answers: 1. $\frac{1}{8} ; 2 . \frac{3}{8} ; 3$. No, because you could land on a white circle, and no prizes are given for this.


> What's next on your reading list?

## Discover your next great read!

Get personalized book picks and up-to-date news about this author.

Sign up now.

