

TABLE OF CONTENTS

Subject	Page
Math tips	2-3
Technology tips	4
Literacy tips	5-6
Social studies tips	7
Science tips	8

MATH

Fractions and Decimals: How to Make a Buck

Get a standard deck of playing cards, shuffle the deck, and deal ten cards to each player. The object of the game is to be the first person to collect 10 cards that equal exactly \$1.00.

The values of each card are: Ace = \$0.01, Two = \$0.02, Three = \$0.03, Four = \$0.04, Five = \$0.05, Six = \$0.06, Seven = \$0.07, Eight = \$0.08, Nine = \$0.09, Ten = \$0.10, Jack = \$0.11, Queen = \$0.12, and King = \$0.13.

Take turns drawing and discarding one card at a time, deciding whether to keep or get rid of a card based on whether it will help you reach \$1.00. When you discard a card, place it face up next to the main deck. The next player can choose to pick up the card you discarded or draw a new facedown card from the deck.

Use mental math to add the ten cards and determine how close to \$1.00 you are. Keep that number in your head and track how it shifts as you draw new cards and adapt your strategy.

Keep playing until someone gets exactly \$1.00 or you have gone through the entire deck. If the deck is depleted, whoever gets closest to \$1.00 is the winner.

This game will help your child put the concept of decimals into practice by actively working to reach a whole number with parts of the whole (the cards). It also requires the use of problem solving as your child works to figure out which cards to keep and which to discard as they work towards reaching \$1.00.

As you play, encourage your child to keep track of what cards are being placed into and removed from the discard pile. This will encourage them to think logically and to observe their opponent's actions—namely, what cards the opponent discards and picks up. For example, explain that since there are four of each card in a deck, if they see multiple jack cards discarded or picked up early on in the game, then the likelihood of them drawing another jack card gets lower as the game progresses, so they should not plan their strategy around a jack in order to win the game. Considering an opponent's moves will help your child make their own decisions more purposefully and strategically.

MATH

Geometry: Model Perimeters and Areas at Home

Perimeter and area are two ways that help children quantify physical space. Kids sometimes have difficulty grasping these geometry concepts, particularly when taught that a shape with a given area can have multiple perimeters. One way to help make this challenging concept accessible is to have children model areas and perimeters. Here's an activity that will help bring these concepts to life.

Materials needed:

- Paper/napkins/newspaper
- Small Ziploc bag of small square same size crackers or cereal, like Cheeze-Its
- Pen/pencil

Have your child place napkins, sheets on construction paper or newspaper on a table. Then give your child the bag of crackers. Explain that each cracker is a square unit—side lengths of the same length.

Work with your child to arrange three rows of three crackers into the shape of a square. Have them count the total number of squares to name the area. Then have them count the number of cracker sides that make up the sides of the square to name the perimeter.

Encourage your child to experiment using the crackers to model different shapes and sizes and provide the perimeter and area of each.

Try making this activity more challenging by asking your child to build two different shapes with the same perimeter or to build specific shapes, like:

- A perimeter of 14 units and an area of 10 square units
- A perimeter of 8 units and an area of 10 square units

MATH

Technology: Create a Secret Code

A code is a system of symbols, letters, or numbers used to represent something else. Coding is set of instructions computer programmers give the computer to make it do something. Deciphering codes and learning to code both help strengthen reasoning and logical thinking. Work with your child to code and decode fun messages.

Write each letter of the alphabet and the numbers 0 through 9 in rows.

For example,

- Row 1: Letters A through M
- Row 2: Letters N – Z
- Row 3: numbers 0 through 9.

Be sure to leave space for writing between each row.

Create a different symbol for each letter for number and write it below that character in a different color, so that each character has a unique symbol. It's best to keep the symbols simple.

Take turns with your child writing words in your new code. Use the code key you created to decode the words. Encourage your child to send secret messages to other friends or family in code, but don't forget the decoder sheet so that the reader can decode the message and write back!



LITERACY

Reading: Critical thinking—it's not just for school!

In school, your child is learning to think critically about literature and informational text. They are taught to identify the main idea and details and consider the author's purpose. Extend these critical thinking skills to the media they consume outside the classroom by helping them become media literate.

Media literacy is the ability to access, analyze, evaluate, create, and act on all forms of communication. Help your child to think critically by guiding them to ask these questions about any media content they encounter:

- WHO made this?
- WHY was it made?
- WHAT is missing from this message?
- HOW might different people interpret this message?
- WHO might benefit from this message?
- WHO might be harmed by this message?



Practice asking these questions the next time you watch a commercial or listen to the news together. Model thinking carefully about what a message means and why it was created. Work with your child to identify a message they might find confusing and try unpacking it by answering the questions above together.

Spelling and Vocabulary: Guess the Idiom!

Idioms can be challenging for children because their meaning is different from the meaning of the individual words in the phrase. Understanding and using idioms indicates dexterity with the English language and is used as a tool for creative expression. You can make idioms fun and accessible for your child by playing “Guess the Idiom.”

Materials needed:

- Index cards
- Drawing paper
- Pen/pencil

Compile a list of idioms like:

Under the weather

The bee's knees

Spill the beans

Pull someone's leg

Beat around the bush

Bite off more than you can chew

Jump on the bandwagon

Hit the sack



Write each idiom of an index card and shuffle. Select a card and say the meaning of the idiom—do not read the idiom aloud—then draw the idiom and have your child guess what it is.

For example: If you selected the bee's knees you might say, "this idiom means very good; excellent" and then sketch a bee and a knee. Encourage your child to guess the idiom based on the definition you provided and the sketch you drew.

Switch roles after each round. Adjust the game as necessary. You might add points, allow your child to pass on an idiom that they're having difficulty with, or include additional players and designate the first correct guesser the winner. The goal is to turn the leaning into a fun, memorable experience.

SOCIAL STUDIES

Geography: Take a public transportation field trip.

Help your child learn about public transportation! Take a walk to a bus stop or train station near your house and observe the resources that help people navigate transit systems. Point out maps, route information, and methods of payment. Use those resources to plan (or take!) a trip to a local destination—the library, your child’s school, or a public park. Ask questions like the following to help your child think of every detail:

- What route would you need to take to get there? What route would you take to get home?
- How long would your journey take?
- Do you need to transfer? How do you do that?
- How do you pay your fare?
- What happens if you get lost?



If your family uses public transportation often, customize this activity to challenge them in a new way—go somewhere you’ve never gone before, have them purchase the tickets, or take a line or route you don’t normally take!

After your field trip, talk with your child about the transit service, and help them think about it as a public resource.

- Was it easy to use?
- What is the environmental impact of traveling by public transport versus driving a car? What about taking public transport versus walking?
- Did it take longer or shorter to get where you were going than it does by your primary mode of transportation?
- Do you think the ticket price is fair? Should public transportation be free?
- How could this service be improved?

Public transportation is a necessary social service that many people rely on to travel around their communities. As your child gets older and becomes more independent, understanding how to navigate these systems will help them feel comfortable in their environment. It will also expose them to the ways that local governments provide services to their communities, which they will learn more about as they transition into middle school.

SCIENCE

Scientific Thinking: What Am I?

Play this scientific guessing game with your fifth grader to help them study for a test, learn tricky concepts, or even stay entertained on a car ride.

Player A thinks of a specific scientific word or concept (such as atom, biosphere, erosion, geology, organism, species etc.) and tells Player B the definition of their word or concept. Player B can ask for up to five additional clues and then has to guess what the answer is based on the information given.

For example, if the concept is atom, the definition might be: "I am the smallest unit of matter."

Potential clues include:

- I am a particle.
- All substances are made up of millions of me.
- I can have a positive or a negative charge.
- I have electrons.
- I have a nucleus.
- My nucleus has protons and neutrons.



Track how many clues Player B asks for by holding up five fingers and putting one finger down for each clue asked. When all fingers are down, or the word is guessed correctly, that round is over! The players switch roles for the next round.

The goal is to guess the word with as few hints as possible. If you want to keep score, write down how many clues the guesser asked for each round. The person with the lowest score wins.