

Table of Contents

Dear Parents	4
Welcome to Fifth Grade!	5
Building Connections	6
Let's Read!	8
Let's Write!	10
Let's Talk!	12
Everyday Math	14
Squeezing in Science	16
Hello, History!	18
Being Civic Minded	20
Let's Build!	22
It's Tech Time!	24
Let's Think!	26
All About Art	28
Much Ado About Music, Dance & Theater	30
Happy & Healthy	32
Fun, Fun, Fun	34
Tips & Tricks	36
You've Got This!	37
Learning Charts	38



Dear Parents,

Let's face it: school days can be chaotic. There's the morning hustle to get the kids awake, dressed, and off to school. After-school activities flood the afternoons: sports, language programs, and classes on computer coding (yes, that's a real thing now). Trying to tackle homework amidst cooking dinner and settling sibling arguments fill the evenings. Oh, and let's not forget the dilemmas and distractions of raising a child in the digital age—the perils of parenting in a world with YouTube are endless!

Schools desire parent involvement not because they want to add to your already hectic schedule, but because studies have shown that students are more successful when there is a strong connection between home and school. Creating a supportive and positive learning environment at home fosters knowledge, sparks curiosity, and builds self-confidence.

This parent guide will not burden you with more tasks and to-do lists; rather, it will empower you with useful tools, meaningful advice, and resourceful activities to help you create opportunities for learning in the moments that make up your everyday life.

Not every activity in this book needs to be completed. Choose what works best for you and your family. Take small steps. Live in the moment with your child. If you do that, you will naturally create a learning environment that will connect your home and school beautifully and seamlessly.

Squeezing in Science

A Step Further ➔ By the fifth grade, students have a fairly firm grasp on the scientific process. Now, the focus shifts to developing ideas based on scientific findings. They will be expected to think deeply about the data and results of experiments conducted in the classroom and use them to expand their knowledge of science-related topics. Keep the learning going at home with these fun but simple science activities.

The Science Behind the Glow

Glow sticks are cool at any age. But do you know the science behind them? What makes them glow? It's a chemical reaction. Hydrogen peroxide mixes with an oxalate ester solution and a fluorescent dye. When you bend the plastic tube, you break a small glass tube containing the peroxide. The chemicals all mix, the molecules excite, and photons are released. The result is a glowing stick! Here is a fun science experiment you can conduct using glow sticks.

Temperature Change

You'll Need:

- 3 glow sticks of the same color
- hot water
- room-temperature water
- 3 clear glasses
- ice water

Hypothesize: Tell your child she will be placing three glow sticks in three glasses of water. Each glass of water will be a different temperature (hot, cold, room). Ask her what she thinks will happen to each glow stick. What will each one look like? Brighter? Dimmer? Will one stop glowing altogether? Have her write down her hypotheses.

Experiment:

- Step 1** Fill the first glass half full with hot water, the second glass half full with room-temperature water, and the third glass half full with ice water.
- Step 2** Bend and shake each glow stick to activate it.
- Step 3** Place one activated glow stick in each glass of water. Wait a few minutes, and then observe the glow sticks. Which glow sticks are brighter? Which glow sticks are dimmer? You may want to take the glow sticks out of the water and place them side by side to see the results better.

The Science Explained:

The cold temperature slowed down the chemical reaction, causing that glow stick to be dimmer. The hot water sped up the chemical reaction, causing that glow stick to be brighter.



Money-Saving Tip

Glow sticks can often be found at your local dollar store.



Cool Concept

If you put one of the glow sticks in the freezer overnight, will the chemical reaction slow down enough so that it will still be activated in the morning? Try it!



Inventive Idea

Hop on the Internet with your child, and find some fun craft projects you can make or games you can play with the glow sticks you used for the experiment.

Working with Water

There is so much that can be learned by conducting experiments involving water! Here are two simple experiments using water and some common household items.

Convection Currents

You'll Need:

- access to a freezer
- a dropper
- a glass jar
- water (hot and cold)
- a coffee cup
- food coloring
- a spoon

Hypothesize: Tell your child she will be adding drops of colored hot water to cold water. Ask her to predict what will happen. What will she see? Why does she think that will happen?

Experiment:

- Step 1** Fill the jar half full with cold water. Place it in a freezer for about 20 minutes. (Note: Don't let the water freeze!) Remove the jar and place it on a flat surface.
- Step 2** Fill the coffee cup with about $\frac{1}{3}$ cup of hot water. Add a few drops of food coloring to the water, and stir with a spoon.
- Step 3** Use the dropper to transfer some of the colored hot water from the coffee cup to the cold water in the jar. Be sure to place the dropper near the bottom of the glass jar before squeezing it to release the hot water. Release just a few drops at a time. Observe what happens to the drops of hot water each time. What happens once all the water has been released?

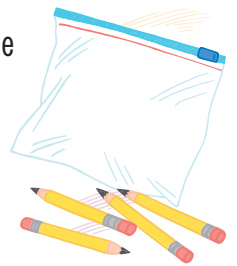
The Science Explained: The colored hot water rises through the cold water, forming a layer of colored water at the top of the jar. This is because the hot water has more kinetic energy than the cold water. All that energy caused the hot water molecules to push apart, making the water less dense. Because it was less dense, the hot water was able to float to the top. As it floated to the top, it created convection currents. The convection currents mixed the hot and cold water together, which eventually evened out the temperature. This caused the dye to diffuse within the entire jar of water.



Playing with Polymers

You'll Need:

- quart-size sealable plastic bag
- water
- 4 very sharp, round pencils



Hypothesize: Tell your child you will be filling the bag with water and then sticking sharp pencils through it. Ask him to predict what will happen. What will he see? Why does he think that will happen?

Experiment:

- Step 1** Fill a quart-size sealable plastic bag halfway full with water. Zip the bag closed. Hold the top of the bag in one hand. (Note: It's a good idea to hold it over a sink, just in case!)
- Step 2** Push the pencils through one side of the bag and halfway out the other side of the bag. (Do not push the pencils all the way through.)

The Science Explained: No water spilled out! Why? The bag is made of a polymer that consists of a long chain of flexible molecules. When the pencil slides between the chain, the chain makes a seal around the pencil that doesn't let the water out. Try adding some more pencils to the bag! If you're really brave, let your child try it!



Awesome Advice

Ask your child to research and find some examples of convection currents, such as ocean currents, molten rock deep in Earth's surface, or the circulation of winds in Earth's atmosphere.