

6

Science

Children are captivated and curious about the world around them. They are naturally interested in exploring, observing and investigating. Children learn about science by asking questions and making discoveries about what they observe.



By encouraging their sense of wonder, we help children become scientific thinkers.

Books Your Child Will Enjoy

Freight Train by Donald Crews

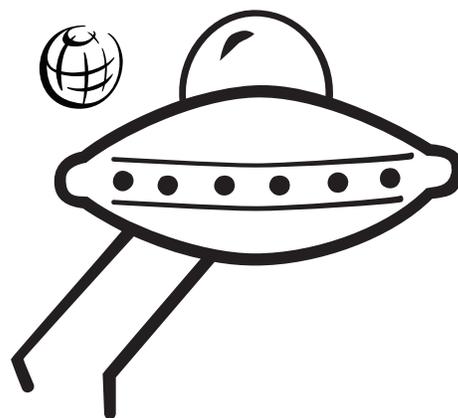
The Snow Day by Ezra Jack Keats

In the Small Small Pond by Denise Fleming

The Very Hungry Caterpillar by Eric Carle

Round Like a Ball by Lisa Campbell Ernst

All You Need for a Snowman by Alice Schertle

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6

Discovering the World Around Us

Children are very interested in the world around us and why things change. Engage your child in conversations about the events we observe everyday.

Science 6.1**I wonder...**

- Talk about the sun – how it rises in the morning, moves across the sky and disappears at night
- Observe the moon and how its shape changes from night-to-night
- Gaze at the stars and encourage your child to ask questions and wonder, “How many stars are in the sky? How far away are the stars?”
- Make a snowball in the winter and then bring it inside. Place it in the sink and watch it melt over time. “What happened? Why did it melt? How could we stop it from melting?”
- Place a plastic measuring cup outside to measure the rainfall



- Go outdoors to find insects. Talk about their names, how they build their homes and what they eat for food. Dig in the mud and look for worms.

**Weather**

Talk about the weather each day. Ask your child to check the weather outside and describe it to you. Ask, “What should we wear today? Do we need to wear a sweater, a coat, a hat and mittens? If it is raining, what do we need to bring with us?”

**Seasons**

Discuss the changes in the seasons. When winter is ending, notice that birds begin to reappear, the grass begins to turn green and flowers begin to bloom. When summer arrives, talk about the different clothes we get to wear and the different activities that remind us of summer – going to the beach and the park. When summer ends, point out the leaves on the trees and how they change colors and begin to fall.

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6

Plants, Fruits and Vegetables

Children act as scientists when they learn about living things. Think about ways to talk to your child about how plants are living things that need sun and water to grow. Caring for plants at home is a wonderful place to start.

Start a Small Garden

- Decide where to plant your seeds: the yard, a flowerpot or a plastic container
- Determine what plants grow best in your area
- Make a list of what you will need to plant: seeds, dirt, a spoon or some other tool to plant
- Plant the seeds with your child. Count the seeds and measure how far apart to plant.
- Decide when you will water the soil
- Ask questions along the way:
 - “How do the plants or flowers get food?”
 - What do plants and animals need to grow?

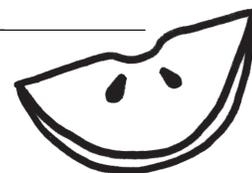


- What will happen to the seeds we plant?
- What would happen if we did not feed the plants?”

RI* Family Favorite

APPLE TASTING

Next time you are at the supermarket purchase a few different types of apples. Choose different colors: one red, yellow and green. Cut a slice from each apple and have your child taste each slice. Ask your child to describe the different tastes and choose a favorite. Cut another slice and keep them out on the counter for a while. Watch what happens to the color of the inside of the apple when you leave it out.

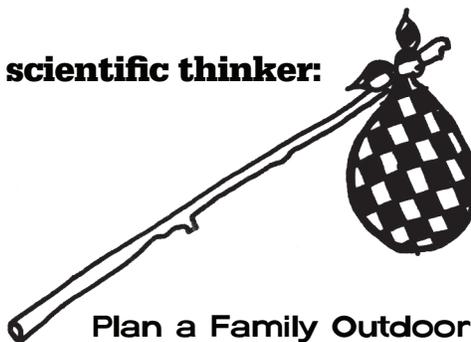


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6

Help your child become a scientific thinker:

- observe
- collect
- describe
- record



A Shadow Hunt

On a sunny day, take your child outside and look for shadows. Have your child find their own shadow. Move around and watch your shadows change. Try standing in your shadow. Then, stand in the light. Ask your child to describe what happens.

Now, look for as many shadows as possible. Observe the shadows made by birds, trees, signs, people, animals and flowers. Ask your child questions such as, “What has a shadow? When do you see it?”



Plan a Family Outdoor Scavenger Hunt*

1. **Develop** a list of items that you want each team to gather: seed pod, a white rock, a feather, something red, a leaf, a twig, a wild flower.
2. **Give** each team their own list of items and a bag large enough to hold the items.
3. **Set boundaries** and a time when everyone should return. At the end of the hunt, have everyone empty their bags and compare what they found.
4. **Help** your child create a list or draw pictures of the contents of the bag.

*This game works best when you work in teams.

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★ Use the back of this card to write or draw your list of items for the scavenger hunt... ➡

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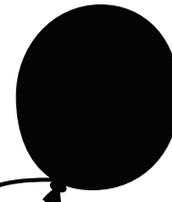
Simple, Fun Experiments for You and Your Child

Tools for Your Scientist

Here are some items you can put together to create a tool box for your young scientist:



- measuring cups and spoons
- sponges
- magnifying glass
- straws
- tweezers
- food coloring
- eyedroppers
- scale



Fun with Colors

WHAT YOU NEED: eyedropper, white ice cube tray, cover for table, apron, food coloring, water, coffee filter, twist tie.

HOW TO: Cover the table, and have your child put an apron. Put water in a few of the sections of the ice cube tray and food coloring in the other empty sections. Show your child how to use the eyedropper to move the water from one section to another to mix the colors. To expand on this activity, drop the colored water on a coffee filter and watch the colors spread. Pinch the coffee filter in the middle and secure with the twist tie to make a colorful butterfly.

Static Electricity 101

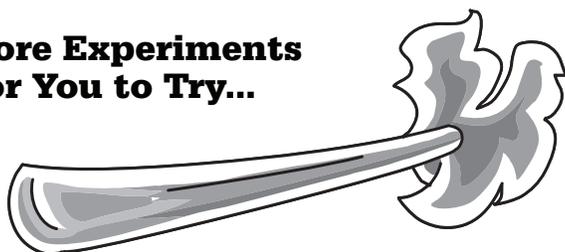
1. **Blow up** a regular balloon (not Mylar).
2. **Rub** balloon on any fabric* – couch, chair, shirt.
3. **Hold** the balloon near your head or over your arms. Your hair will stand straight up!
4. **Hold** it over a shredded napkin or tissue paper and the pieces will move to the balloon just like a magnet!

*wool works best

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6

More Experiments For You to Try...



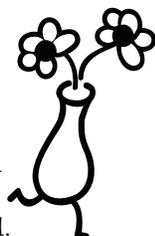
Drinking Celery

WHAT YOU NEED: celery stalk, glass jar that can hold 2 cups, measuring cup, water, food coloring.

HOW TO: Place celery in the container that has about a cup of water on the bottom. Mix 10-20 drops of food coloring into the water. Red and blue food coloring works best. Ask your child to describe the color of the celery when you first put it in the water. Watch and observe as the stalk changes color. The longer you keep it in the water, the darker it becomes. Ask your child to look closely to see how the colored water travels from the bottom to the top of the celery.

If you have plenty of time...

Now place a white carnation or daisy in the same container and leave the flower in the colored water overnight. Ask your child to observe how the color moves from the bottom of the vase to the tip of the petal.



A Penny Saved is a Penny Cleaned

You'll need...

- 1 shiny penny and 3 tarnished pennies
- 3 small bowls
- tablespoon measure
- water
- salt
- vinegar

1. **Line up** the 3 small bowls and put a little water in one, 2 tablespoons of salt in another, and 7 tablespoons of vinegar in the third. Let your child know the contents of each bowl.
2. **Put** the shiny penny apart from the dirty ones and ask the child to guess which bowl will clean the dirty pennies best.
3. **Drop** a dirty penny in each of the 3 bowls for 1 minute and see what happens. Nothing!
4. Now **mix** the water with the salt and vinegar and see if the penny becomes clean and shiny.*

*Mixing vinegar, salt and just a little water makes a special kind of cleaner that takes dirt off the copper penny.

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