Back to Learning!

Science Activities

Ages 5 - 7

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Butterfly Life Cycle Model</td>
<td>2</td>
</tr>
<tr>
<td>Day 2</td>
<td>Make it Move</td>
<td>3</td>
</tr>
<tr>
<td>Day 3</td>
<td>Rain in a Jar</td>
<td>4</td>
</tr>
<tr>
<td>Day 4</td>
<td>Make it Move with Air</td>
<td>5</td>
</tr>
<tr>
<td>Day 5</td>
<td>I Spy with my 5 Senses</td>
<td>6–7</td>
</tr>
</tbody>
</table>

Use this packet of activities to help children practice their Science skills. Adult supervision required.
INSTRUCTIONS:

Step 1. Cut 3 leaf shapes from construction paper. Add a branch to 1 of the leaves. Glue the pieces to the construction paper as shown.

Step 2. **Egg Stage** – Glue a rice grain to the leaf in the bottom left corner. This is the egg.

Step 3. **Larva Stage** – Bend and twist pipe cleaners to make a caterpillar. Glue it to the next leaf.

Step 4. **Pupa Stage** – Crumple a small piece of aluminum foil. This is the cocoon. It hangs from a branch. Add it to the model.

Step 5. **Adult Stage** – Tie a ribbon around a coffee filter to make a butterfly. Color the wings. Add it to your model.

Step 6. Add arrows to your model to show how the stages connect.

THE SCIENCE BEHIND IT:

A butterfly’s life cycle has 4 stages. Butterflies lay eggs on leaves. A caterpillar hatches from an egg. Caterpillars eat a lot of leaves to grow. Over time, the caterpillar makes a cocoon called a chrysalis. In the cocoon metamorphosis happens. The caterpillar changes into a butterfly and leaves the cocoon.
Day 2
Make it Move

MATERIALS:
• Cardboard or chipboard from cereal box
• Small toy car
• Blocks or books
• Wool
• Scissors

INSTRUCTIONS:
Step 1. Put 2 blocks or books under 1 end of the cardboard to make a ramp.
Step 2. Place the toy car at the top of the ramp and let go. Observe how far it travels.
Step 3. Add another block. Predict how far the car will travel. Test and observe how far it travels.
Step 4. Remove 2 blocks to make a short ramp. Predict how far the car will travel. Test and observe how far it travels.
Step 5. Repeat steps 1–4. Measure the distance the car travels using wool. Put the wool pieces side by side to compare.

THE SCIENCE BEHIND IT:
Motion happens when a force makes something move. Gravity is a force that pulls things toward Earth. The taller the ramp, the greater the force. Friction is a force that acts on moving objects. Friction causes the toy car to slow down and stop.
Day 3
Rain in a Jar

MATERIALS:
• Jar
• Plastic sandwich bag
• Rubber band
• Ice cubes
• Very warm tap water

INSTRUCTIONS:
Step 1. Have an adult fill a jar about $\frac{1}{3}$ full of very warm tap water.
Step 2. Put 6 to 8 ice cubes in the plastic bag.
Step 3. Hang the bag in the jar. Fold the top of the bag over the edge of the jar. Add a rubber band to keep it in place.
Step 4. Wait and watch. Look at the bottom of the bag. What do you see?

THE SCIENCE BEHIND IT:
Water in the jar evaporates becoming a gas called water vapor. Water vapor rises and touches the cool plastic bag. It cools and turns back into water. The water dripping from the bag is cooled water vapor.

Rain happens in a cycle. The sun heats water. Water evaporates and rises into the air. It cools and condenses to become tiny drops and forms clouds. When a large amount forms it falls as rain.
Day 4
Make it Move with Air

MATERIALS:
• 2 damp sponges
• Plastic sandwich bag
• Straw
• Masking tape
• Cotton balls or pom-poms

INSTRUCTIONS:
Step 1. Put 2 sponges in a plastic sandwich bag. Put 1 end of the straw in between the sponges. The other end is sticking out of the bag.

Step 2. Close the bag. Add masking tape to keep it closed. This is your air pump.

Step 3. Put your air pump on a flat surface. Place a cotton ball in front of the straw.

Step 4. Push down on the sponge. Observe the cotton ball. Slide the air pump forward and push again.

Step 5. How far can you move the cotton ball with 5 pumps? Take turns with a partner and see whose cotton ball moves farther.

THE SCIENCE BEHIND IT:
Air is all around us. Air is pressing on all objects, including people. Air exerts a force called air pressure. When air is pushed by an air pump the air can push objects. Blowing up a balloon or blowing bubbles are examples of pushing air.
Day 5
I Spy with my 5 Senses

MATERIALS:
• Cardboard tube
• Construction paper
• Scissors
• Glue or tape
• Markers or crayons
• Household objects

INSTRUCTIONS:
Step 1. Cut shapes to make eyes, ears, nose, tongue, and hands. Glue or tape the shapes to the tube. Use the “Observation Sheet” on the next page to record your answers to the remaining steps.

Step 2. Look through the tube. Use your eye to find an object that is blue. Find an object that is green. Name or draw the objects.

Step 3. Listen to sounds around you. Hold the tube up to your ear. Use your ear to find 2 things that make sounds. Name or draw the objects.

Step 4. Name or draw something that tastes sweet and something that tastes salty.

Step 5. Find a soft object and a rough object. Name or draw the objects.

Step 6. Find something in your yard that has a strong smell and name or draw it. Then, name or draw something that shows your favorite smell.
## Observation Sheet

<table>
<thead>
<tr>
<th>blue object</th>
<th>green object</th>
</tr>
</thead>
<tbody>
<tr>
<td>makes sound</td>
<td>makes sound</td>
</tr>
<tr>
<td>sweet</td>
<td>salty</td>
</tr>
<tr>
<td>soft</td>
<td>rough</td>
</tr>
<tr>
<td>strong smell</td>
<td>favourite smell</td>
</tr>
</tbody>
</table>

### THE SCIENCE BEHIND IT:
Our senses help us learn about the world around us. We make observations with our senses. The **sense organs** send messages to our **brain**.

### FUN FACTS:
- **At night in low light we see things mainly in black and white.**
- **The outside part of our ear gathers sound waves.**
- **When we taste food, we use both our sense of taste and smell.**
- **Different parts of our skin feel things stronger than others.**