

BLINK AT HOME

STEAM-ING IN THE RAIN

What can we do with the rain?- SCIENCE

Skills to Develop

- + Making observations
- + Scientific knowledge

Materials

- + Large glass jar
- + Saucer or small plate
- + 1/2 cup hot water
- + 6 ice cubes

WHAT TO DO

During the Learning Activity

1. Explain that you are going to do a science experiment today to learn about what makes it rain.
2. Pour about two inches of very hot water into the glass jar.
3. Cover the jar with the plate and wait two minutes.
4. Place the ice cubes on top of the plate.
5. Discuss your observations: *What do you notice? What do you think is happening? Does it remind you of anything?*
6. Explain the science: the ice cubes cool the plate. When the cold plate and the hot steam come together, the water in the steam condenses and makes water droplets. Those water droplets get heavy and then they fall. When this happens in the air, rain falls. When it is very cold outside, the water droplets might freeze into snowflakes as they fall.

Extend the Fun

- + Repeat the experiment. Write or draw your observations.

BLINK AT HOME

STEAM-ING IN THE RAIN

What can we do with the rain?- TECHNOLOGY

Skills to Develop

- + Making observations
- + Making predictions
- + Scientific knowledge
- + Verbal communication

Materials

- + TV or internet to watch the weather report
- + Sheet or blanket

WHAT TO DO

During the Learning Activity

1. Watch a meteorologist give the weather report online or on your TV. Discuss how the screen behind the meteorologist where you see the maps is actually a blank green screen. Computers add in the maps and graphics that you see on your screen.
2. Discuss: Meteorologists are people whose job it is to predict the weather. They do research about the ways hot and cold air are moving to predict snow, rain, wind, and temperature. Then, they tell people what kind of weather to expect on the news.
3. Research: Go to your window or take a short trip outside. Check the weather. Ask: is it hot or cold? Is it windy? Is it rainy or cloudy or sunny? How would they tell someone far away about the weather outside right now?
4. Hang up your sheet or blanket to create your own green screen.
5. Pretend to be a meteorologist. Describe the weather you are seeing outside for the 'audience' and make predictions about how the weather might change later in the day. Tell your 'audience' what kind of clothes they might need to wear to be prepared for the weather that day.

Extend the Fun

- + Keep a weather diary to track the weather each day.
- + Watch the weather each day to see if the meteorologist's predictions were correct.

BLINK AT HOME

STEAM-ING IN THE RAIN

What can we do with the rain?- ENGINEERING

Skills to Develop

- + Making observations
- + Making predictions
- + Numbers

Materials

- + Jar or plastic bottle
- + Permanent marker
- + Ruler
- + Scissors

WHAT TO DO

During the Learning Activity

1. Explain that today you are going to make a rain gauge to measure how much it rains outside. Discuss that different parts of town might get different amounts of rain.
2. Take any labels off your jar or plastic bottle so that you can see through it. If using a plastic bottle, cut the top of the bottle off so that you have a wide cylindrical opening.
3. Align your ruler with the bottom of the jar. Using the permanent marker, make lines for every inch and label them with numbers. For older children, consider marking every half inch.
4. Place your new rain gauge outside in a safe, uncovered location. If using a plastic bottle, you may need to dig a little hole to bury the bottom portion of your rain gauge so that it does not blow away.
5. Check on your rain gauge every day to see how much it rained. Keep a chart to track how much rain you got each day.

Extend the Fun

- + Check weather reports to see how the amount of rain is different around town.
- + Add up the rainfall to see how much rain you get in a week or month.

BLINK AT HOME

STEAM-ING IN THE RAIN

What can we do with the rain?- ART

Skills to Develop

- + Fine motor skills
- + Making observations
- + Color identification
- + Color mixing

Materials

- + Cardstock
- + Food coloring
- + Rain
- + Cookie sheet
- + Drying rack (optional)

WHAT TO DO

During the Learning Activity

1. Lay your cardstock in the cookie sheet.
2. Choose 2-3 colors of food coloring. Drip dots of food coloring around the paper in a design.
3. Take the cookie sheet outside in the rain for a few minutes. Be sure to bring it back in before the paper becomes so saturated with water that it might fall apart.
4. Discuss: *What happened to the colors on the paper? Did they change? Did the colors mix together?*
5. Carefully remove the wet paper from the cookie sheet and allow it to dry someplace safe. You may wish to use a drying rack so that it can dry more quickly.
6. Repeat the process with different color combinations and designs. Try to create new color combinations where two colors mix in the rain. What colors mix well together? What color combinations do not mix as well?

Extend the Fun

- + Experiment with chalk, washable markers, watercolor paints, etc. to see how they react to the rain.
- + Cut your new speckled paper into shapes for a collage or use them as cards to send to loved ones.

BLINK AT HOME

STEAM-ING IN THE RAIN

What can we do with the rain?- MATH

Skills to Develop

- + Making observations
- + Mathematical thinking
- + Numbers

Materials

- + Posterboard
- + Cardstock
- + Coloring utensils
- + Scissors
- + Tape
- + Ruler
- + Permanent marker

WHAT TO DO

Prepare Before

1. On the poster board, use a ruler and permanent marker to create a blank calendar. You will want to create a grid seven columns wide and five rows tall. Along the top, write the days of the week.
2. Find a place to tape this calendar chart to the wall.
3. Cut squares of cardstock the same size as the squares on your calendar chart.

During the Learning Activity

1. Discuss: Today we are going to make a calendar to help us track the weather. *What kinds of weather do we have outside? What is the weather like in the winter? What about in the summer?*
2. Brainstorm the symbols you might use to help show different types of weather. Then, draw these symbols on your cardstock squares.
3. Go outside or look out a window to make observations about the weather. Decide what symbol you should use to represent today's weather and tape that symbol to the chart.
4. Check the weather and add it to your chart once every day. Discuss how you may need to create more of one symbol or even invent a new symbol as the month continues. Discuss any patterns you might notice about the weather.

Extend the Fun

- + At the end of the week or month, count how many days you had of each type of weather.
- + Count how many days in a row it was rainy, sunny, cloudy, snowy, etc.