Preschool Science Activities

Weather Calendar

Buy or make a calendar with large blocks for each day. Let your children use pictures to record the weather each day. Devise symbols for sunny, cloudy, rainy, windy and combinations of those. You could even draw them yourself and make photocopies for them to paste on each day. The advantage of using a calendar is that you can compare the weather each month and see how it changes with the seasons.

Temperature Readings

If you have a thermometer, you could also record the temperature each day and add that to your calendar records. The exact numbers may mean little to your children, but you could record hot, mild, cool or cold on your calendar and observe the changes with the seasons.

Water Cycle

At some time or another your children will ask you what makes rain. Briefly explain the water cycle in language that they will understand. You can demonstrate it too:

1. In the bathroom, point out the steam that evaporates from the bath into the air and then condenses on the cold tiles or mirror. Explain the similarities with water from the sea that evaporates into the air, cools as it rises, condenses and precipitates in the form of rain, hail or snow.

2. In the kitchen, carefully so you don't scald yourself, hold a glass over the spout of a boiling kettle. Explain how the steam evaporates and condenses on the cold glass and forms water droplets again.

3. Make a terrarium: Cut a large clear plastic bottle in half, plant some small plants or bean seeds in damp soil in the bottom of the bottle. Then put the two halves back together and seal it with thick tape. Seal the lid and observe how the moisture condenses on the sides of the bottle, trickles back into the soil and recycles.

Freezing

Freeze juice to demonstrate how water turns to solid when cooled. You could make ice-lollies to enjoy. Observe how they melt and become liquid again when removed from the freezer.
Heat

Make popcorn to demonstrate that heat causes expansion. The corn pops out of its skin!

Rainbow

Explain how white light is made up of the colors of the rainbow. Do you know that your back must be to the sun in order for you to see a rainbow?

1. Try creating one with the garden sprinkler!
2. Cut a circle of card and divide it into 7 sections. Color each section a color of the rainbow. Make a hole in the center, thread it onto a piece of string and spin it until the colors become white.

Colors

Explain that each color we see is actually a color of light being reflected to our eyes.

Clouds

Lie outside and look at the clouds. Point out different types on different days or at different heights and how the wind blows them into different patterns. Learn about which kinds bring rain.

Buoyancy

While playing in the water table, allow the children to test a variety of household objects to see which will sink and which will float. Try using a metal teaspoon, a plastic spoon, a wooden clothes peg, a coin, a screw, plastic toys, a wooden block, etc. Talk about your observations. Discuss why little children need swim aids to keep afloat. Discuss the purpose of life jackets for boat crews.

Bubbles

Let the children blow bubbles in cups and talk about the air in their lungs that passes through the water.

Soap

Talk about how soap makes particles of dirt less clingy so that they can be easily washed off into the bathwater. Don’t get too technical, but if your children ask more than you know then find out about “viscosity” together!