

Material Preparation

MATERIALS

- two small bowls
- pitcher of water
- cardboard box or container
- weather accessories for two types of weather:
 - plastic poncho (one size fits all)
 - pair of sunglasses
- spray bottle
- umbrella
- roll of plastic wrap
- roll of paper towels
- permanent marker
- plastic tablecloth

For each child:

- dropper
- two rubber bands
- three 5-oz. clear plastic cups
- two small pieces of scrap fabric (use an old shirt or cotton balls)
- small tray (foam grocery/vegetable tray)
- Ask Me About Rain sticker

PHOTOGRAPHS

Alternative Rain Gear photograph

PREPARE IN ADVANCE

- Moisten one paper towel and place it in one of the bowls.
- Place one dry paper towel in the other bowl.
- Fill the box or container with suggested weather accessories.
- Fill the spray bottle with water.
- Prepare sets of *three cups* per child:
 - Place a piece of scrap fabric in two of the cups.
 - Cover one cup with a piece of paper towel, larger than the opening of the cup, and fasten with a rubber band. Use permanent marker to write **1** on the cup.
 - Cover the second cup with a piece of plastic wrap, larger than the opening of the cup, and fasten with rubber band. Write **2** on the cup.
 - Fill the third cup half full with water. Set the dropper in it.



For each child

SET UP THE LESSON AREA

- Gather the box of weather accessories, spray bottle, two bowls, pitcher of water, and trays of materials for each child. Set aside.
- Cover floor area or table with plastic tablecloth. Children should be seated around the table or covered area.



OBJECTIVE

Children will discuss various weather conditions and explore how some types of clothing can keep us dry.

EXCITE

1. Gather the children in the ECHOS lesson area. Reveal the cardboard box. Reach in the box and put on the sunglasses. **Look! I'm wearing sunglasses. If I wear sunglasses, what type of weather could it be outside?** Prompt the children to say *sunny weather*.
2. Put the sunglasses back in the box, then take out the poncho and put it on. (Be sure to place the hood over your head.) **If I put on this *poncho*, what type of weather could it be outside?** Prompt the children to say *rainy weather*.

NOTE: *If you are using a raincoat or poncho that is child size, ask one child to volunteer to put it on, then ask the other children: **If (child's name) is wearing a *raincoat*, what type of weather could it be outside?***



INTRODUCE

1. **If you don't have a poncho or a raincoat, what else could you use to stay *dry* in the rain?** Listen to the children's responses. Reveal the umbrella from the box and open it up. **An *umbrella* helps us stay dry, too. Is rain *wet*? Of course it is. It's water. Did you ever get wet in the rain?** Listen to the children's responses. **Sometimes people get wet in the rain.**
2. Choose one child to hold the open umbrella. **I will spray the water in this bottle over the umbrella, like pretend rain. We'll see if (child's name) gets wet. I will only spray a little bit of water.**



3. **Are you ready? I wonder if (*child's name*) will get wet if I spray the pretend rain toward her/him. What do you think?** Use the spray bottle to spray a little bit of water above the umbrella. **Why do you think (*child's name*) did not get wet?** Listen to the children's responses. **Yes, the umbrella kept (*child's name*) dry.**
4. **If you don't have an umbrella, what else could you put over your head to stay dry?** Show the *Alternative Rain Gear* photograph. **In this picture, what are the children holding over their heads?** Listen to the children's responses.
5. Hold up the two bowls. **I have two bowls. Each bowl has a paper towel in it. One has wet paper and one has dry paper. When it is your turn, you will place your hand in each bowl and say which is wet and which is dry.**
6. Give each child a turn. Place the bowls to the side. **The paper that felt wet *absorbed* or soaked up the water that I put in the bowl. Now we know what paper feels like when it is wet.**
7. **Do people wear paper when it rains?** Listen to the children's responses. **What do people wear when it rains?** Listen to the children's responses. Use real rain gear as prompts for the words *umbrella*, *raincoat* and *rain boots*. Accept additional responses such as *poncho*, *a hat*, etc.



EXPLORE

1. Seat the children at a table. **Today, we are going to investigate what type of material helps us stay dry in the rain. For this investigation you will each get a tray with three cups.**



2. **One cup is covered with paper and the other is covered with plastic. Inside each of these two cups is a piece of fabric. The other cup has water and a dropper.**
3. Give each child a tray with three cups. **For this investigation we are going to use a special tool called a *dropper*. Watch me as I drop five drops of water into this cup.** Demonstrate how to drop water into a cup using the dropper. **Let's count together: 1, 2, 3, 4, 5.**
4. **Now it's your turn. Use your dropper just like I did to add one drop at a time to cup 1. Try it!** Allow time for children to add the water. **Do you see the water drip into cup 1? If it doesn't drip through, add more drops.**
5. **Keep adding drops until the water is absorbed.** As the water begins to drip through the paper into the cups, direct each child to remove the piece of paper towel from the top of cup 1. Provide assistance with the rubber band if needed. **Does the fabric feel dry? Does it feel wet?**
6. Ask children to hold up the small piece of wet paper towel they removed from the top of the cup. **If you wore a raincoat made out of paper, would it keep you dry? Probably not. The paper would *absorb* water and you would get wet!**
7. **Now, use your dropper to add drops of water to cup 2. Try it!** Allow time for children to add the water. **Do you see the water drip into cup 2 through the plastic? If you wore a raincoat made of plastic would it keep you dry? Yes, it would. The plastic will *not* absorb water.**
8. **You were great rain investigators today! Now we know what material to wear to stay dry in the rain.**



INTERACT

Interact to accommodate children's individual needs and strengths. Use these suggested strategies as needed:

- Some children are still learning to identify numbers. The cups for the **EXPLORE** could be labeled using one small dot or two small dots or two stickers of different colors.
- After the lesson place the sunglasses in the housekeeping area of the classroom for the children to use in dramatic play.

NOTE: *The umbrella and plastic poncho are not safe to keep in the housekeeping area.*

OUTCOMES

1. Regroup the children in the ECHOS lesson area. **What did we discover today?**
Listen to the children's responses. If needed, use suggested prompts to elicit key concepts and vocabulary. Encourage responses from everyone.
 - **How does rain feel?**
 - **What materials help us stay dry in the rain?**
 - **What tool did we use to drop water into the cups?**

2. Give each child an *Ask Me About Rain* sticker.



Remind the children to tell their family something they have learned about rain.

3. After you have completed *Lesson #2: Let It Rain!* with all the children in your classroom, add the ECHOS materials suggested below to your science area to encourage exploration.

VOCABULARY

- absorb/absorbed
- dropper
- dry/wet
- poncho
- raincoat
- umbrella



droppers



sunglasses



Alternative Rain Gear photograph



Alternative Rain Gear

