

# Introducing the Water Cycle by Making a Rain Cloud



## KEY CONCEPTS/VOCABULARY (What you need to know)

- Clouds are made of billions of teeny tiny droplets of water—like baby raindrops
- When the cloud gets too heavy with all those droplets, the water will come down as precipitation
- water vapor: water in its gas form
- observation: something you saw, heard or noticed
- hypothesis: an educated guess as to what will happen in an experiment

## QUESTION (What you want to learn and what to ask the children)

*These questions should be asked in order so that children learn that a hypothesis is a guess about what will happen in the experiment. This expands their science vocabulary.*

- What do you think will happen if we squeeze a little water into the shaving cream cloud? What is your hypothesis or guess?
- What do you think will happen if we squeeze a lot in? What is your hypothesis or guess?

## EXPERIMENT

### Materials (What you need)

Glass jars, water, shaving cream, sturdy cups, shaving cream, blue food coloring, pipettes (medicine droppers)

### Teacher Prep (What to do before the children arrive)

- Fill small cup(s) with water and add blue food coloring
- Fill jar(s)  $\frac{3}{4}$  full with water

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## Procedures (What to do)

- Squirt shaving cream liberally to cover the top of the jar
- Demonstrate use of a pipette and squirt some water into the top of the shaving cream
- Tell the children to pretend that the blue water is water vapor and that they are going to squirt the water vapor into the shaving cream "cloud"
- Ask the Questions and listen to their hypotheses
- Add shaving cream to any remaining jars
- Using pipette, have the children squirt blue water into the shaving cream until the shaving cream cloud starts to "rain"

## CONCLUSION

### Results (What happened?)

- Just like real clouds, the shaving cream cloud becomes saturated--there is too much water for it to hold so some leaks out just like rain falling from a cloud