

RANDOM ACTS OF SCIENCENESS

Lesson: Water Cycle in a Bag

CURRICULUM REFERENCE: Interactions in the Environment

LESSON OBJECTIVE

Observe the full water cycle in your very own living room and see how water goes through the different steps of its course within the environment.

THE SCIENCE BEHIND

The water cycle has been happening for millions of years. The sun's rays warm up water, causing it to evaporate. The water vapour rises into the atmosphere where it eventually cools. This cooling condenses the vapour and turns it back into a liquid. This liquid returns to the earth as rain, snow, or hail and the cycle begins again.

VIDEO: <https://youtu.be/iwCl4dxUrR4>

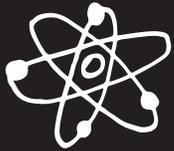


FOLLOW-UP QUESTIONS

1. Is water a good resource for humans to use a lot of every day? Why or why not?
2. How do we use water in our daily lives other than drinking?
3. What are the roles and interactions of producers, consumers, and decomposers within an ecosystem?

LEARNING OUTCOMES

- Analyze the costs and benefits of selected strategy.
- Design and construct a model ecosystem (e.g., a composter, a classroom terrarium, a greenhouse), and use it to investigate interactions between the biotic and abiotic components in an ecosystems for protecting the environment.
- Use scientific inquiry/research skills to investigate occurrences (e.g., a forest fire, a drought, an infestation of invasive species) that affect the balance within a local ecosystem.



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MATERIALS (PER PERSON)

- Large ziplock bag
- Painter's tape
- Food dye
- Sharpie
- Water

INSTRUCTIONS

1. Draw some waves at the bottom of the bag and clouds near the top.
2. Fill your bag with $\frac{1}{4}$ cup of water.
3. Add a few drops of blue food colouring.
4. Find a sunny window and tape it where it will get a lot of sun. TIP: In warm weather, your car window would be a great spot, too.

