

Year 4 Science Project

States of Matter - Including the water cycle

Completing these experiments with an adult. Write up your most interesting experiment - include the headings- Equipment, Method, Prediction, Diagram, Results and Conclusion



- Sweeties
- Fizzy drink
- Clear container



Properties of Gases - What happens when you drop a sweetie into a fizzy drink? Be creative and try different sweeties or fizzy drinks. What did you observe? Make a table showing your results.



- Biscuits
- Rolling pin
- Clear food bag
- Different shaped/sized clear containers

Particle Size Investigation Biscuit Bashing - Place your biscuits into a clear food bag and seal. Bash your biscuits into small particles with your rolling pin and pour into various containers. Can some solids can be poured and take the shape of a container?

- Small bowls
- Different liquids
- Something to cover some of the liquids

Evaporation and Condensation

Leave out dishes of different liquids, eg water, vinegar, lemon juice, salty water and tea to observe over several days. Duplicate some and cover them.

What happens to the uncovered dishes? Is anything left behind? Can you smell anything, why? Which liquid evaporated the fastest? Remember to make your test fair, the dishes, quantity of liquid, conditions in which they are left must remain the same.

- Ice cubes on a plate
- Wide glass jam-jar
- Very hot tap water

The water cycle Make it rain indoors! Place the ice cubes on the plate and pour around 3cms of very hot water into the glass jar. Place the plate and ice cubes on top of the jar and watch what happens. Tap the plate does anything fall down?

- **The water cycle explained simply** <https://www.bbc.co.uk/bitesize/clips/z8qtfq8> **and in more detail** <http://www.metoffice.gov.uk/learning/weather-for-kids/water-cycle>
- **Learn the water cycle song** <https://www.youtube.com/watch?v=qrlEHV580Mg>