

# Year 3 to Year 6 weekly challenges

Choose a challenge to complete. You could also ask an adult to share your challenge on Twitter @Cornerstonesedu or Instagram @cornerstonesedu.



## Processes



### Friction

Test frictional forces by making a ramp using a large board or plank of wood. Cover the ramp with different materials and predict which material a toy car would travel over the quickest and slowest. Measure the time taken for the toy car to travel over each material and record your results in a table.

Was your prediction correct?



### Weather patterns

Keep a weather chart for two weeks. Make sure you record the type of weather, the temperature and the wind direction. After two weeks, identify any patterns in your data and which weather type was most and least common. Make a weather report to summarise your findings.



### What's magnetic?

Predict which items in your home are magnetic. Use a magnet to test your predictions. What will happen if something is magnetic? **Warning** – do not place your magnet next to a computer, TV laptop or phone.



### Crater creator

Fill a deep tray with a thick layer of sand or flour. Drop a range of balls of different sizes and weights into the bowl from the same height. Measure the width and depth of the crater each ball makes. What does this tell you? Which force is causing the ball to fall?



### Erosion

Place a bath fizzer or ball of mud outside. Take a photograph of it everyday and record what happens. What process has changed your bath fizzer or mud ball? Can you use your photographs to create a presentation about the changes that occur?



### Bobbing raisins

Fill a glass with lemonade and put a few raisins into the lemonade. Observe what happens. Write an explanation using keywords, such as sink, float, surface area, gravity, density, buoyancy and upthrust.