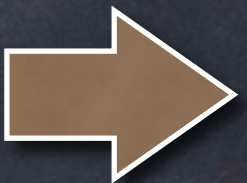


# Rocks, Fossils and Soils

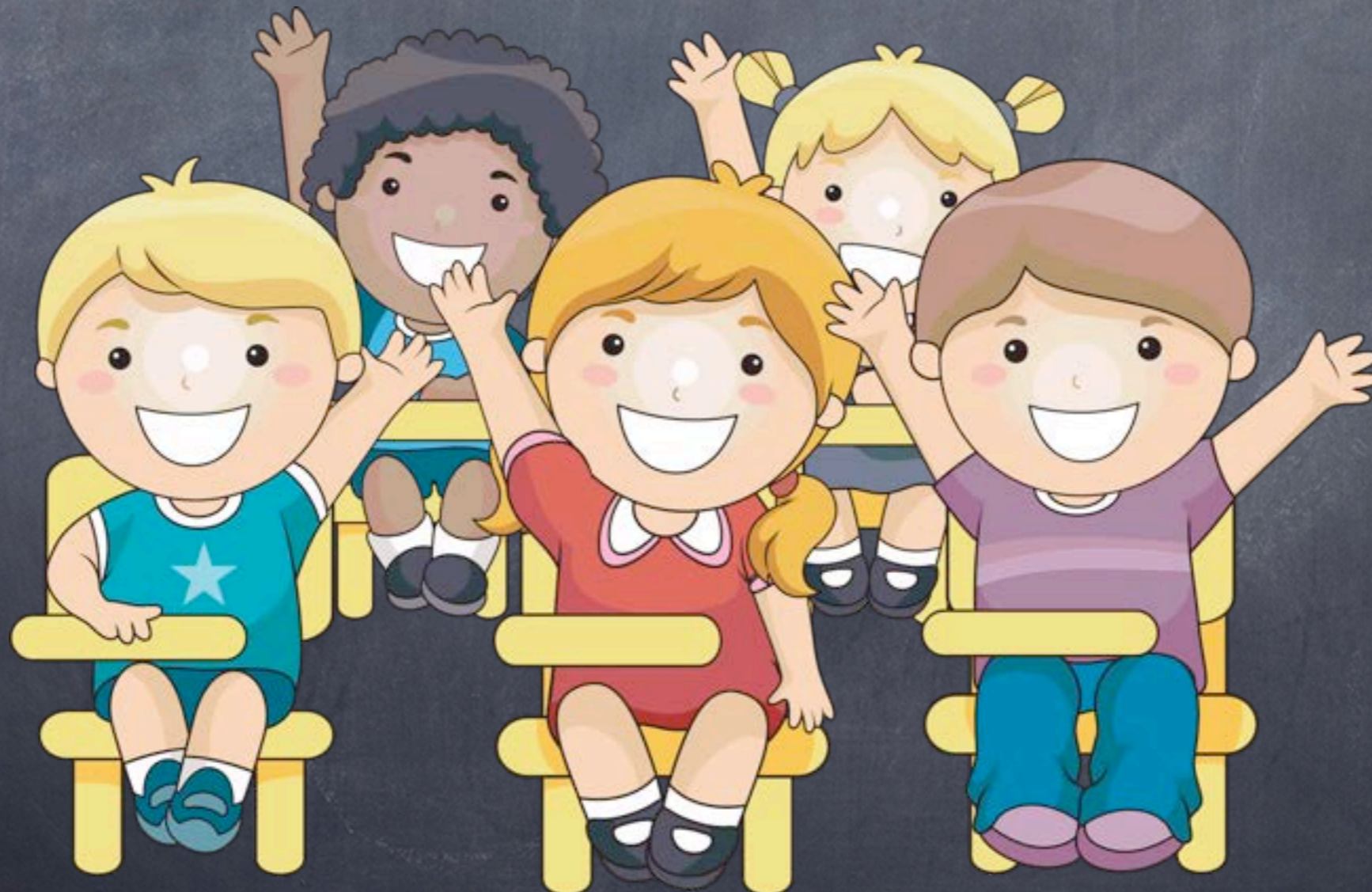
## Learning Objective:

To be able to plan, carry out and evaluate experiments to compare rocks.



Do you know what the word  
**EROSION** means?

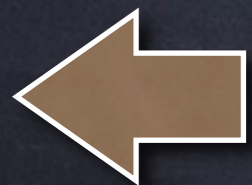
Think, pair, share your ideas...



Erosion is the process when something is worn away by water, wind or other natural materials over time. Although rocks are generally very hard, they can become eroded (worn away).



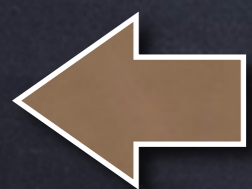
This is the Grand Canyon in America. Over millions of years, water has eroded the rocks to cause these formations and valleys.



How do you think we could set up an experiment to test different rocks to see how much they wear away?

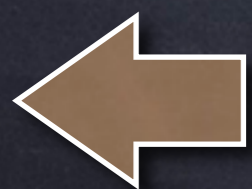
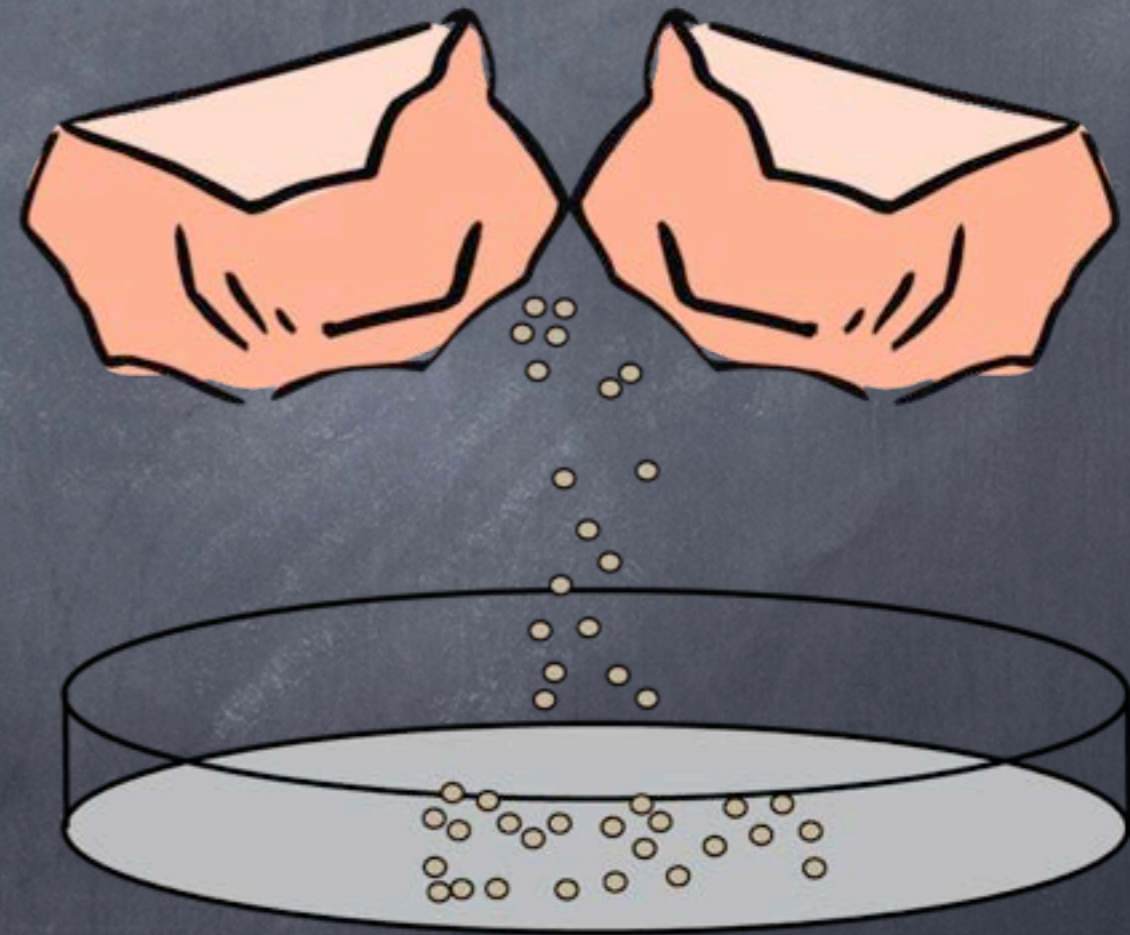


Discuss your ideas.



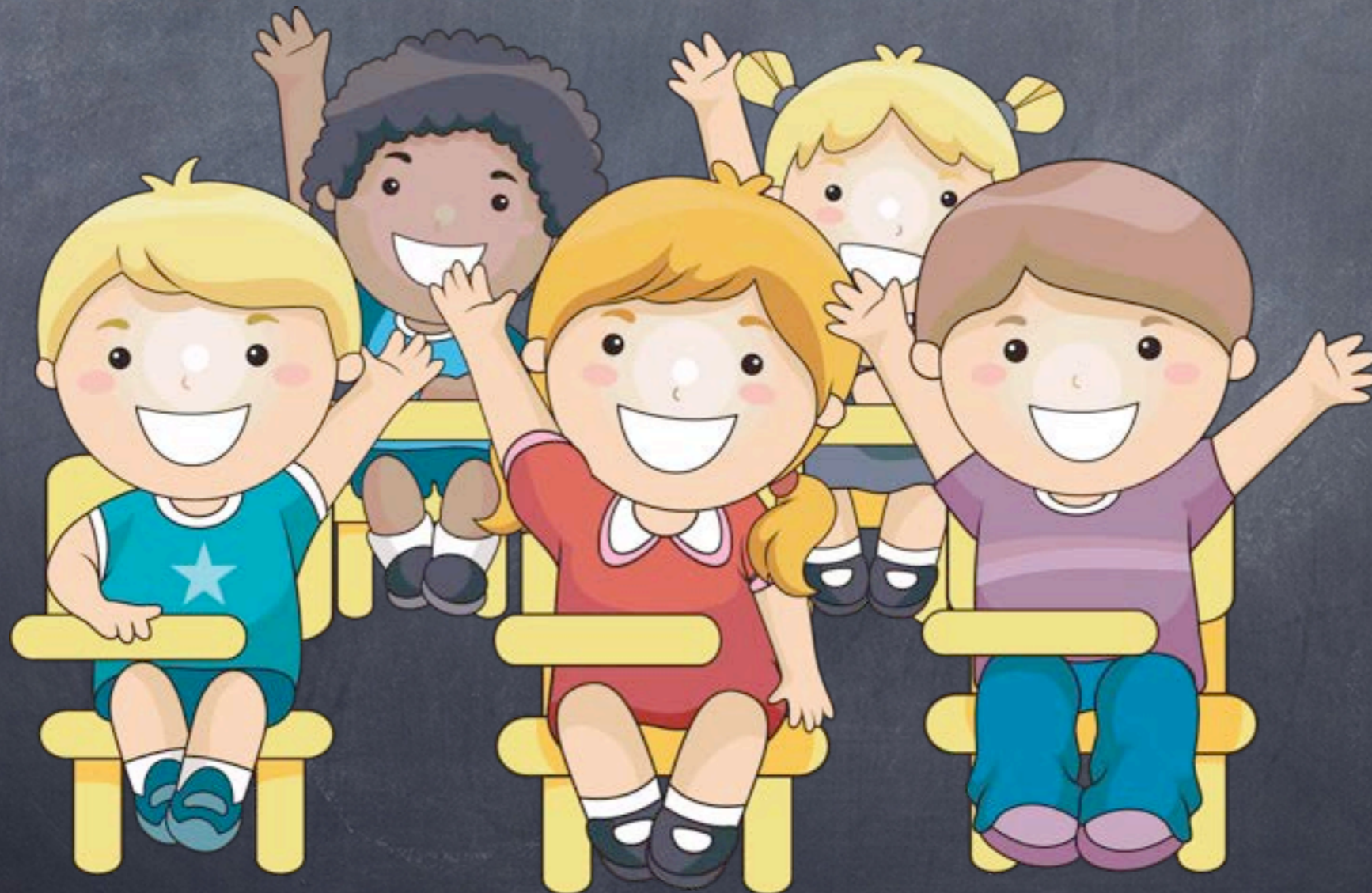
One way you could do this would be to rub two of the same rocks together over a clear container to see how much of the rock erodes and lands in the container as dust.

To make this a fair test you would have to rub the rocks for the same amount of time for each test and using the same force. It wouldn't be a fair test if you rubbed one set of rocks together really hard and the other set really softly.



Do you know what the word  
**PERMEABLE** means?

Think, pair, share your ideas...



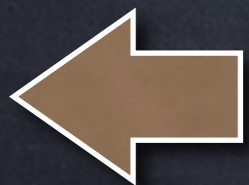
The word 'permeable' refers to how much liquid a material will let pass through it. If something is permeable, water can travel through it. If it isn't permeable, the water will just slide off it or gather on top of it.



Umbrellas and raincoats are NOT permeable. This means that they will not let water pass through them and so will keep you dry.



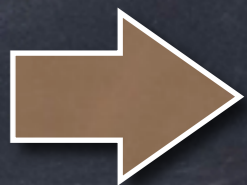
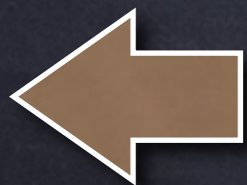
A cloth is permeable because it will let the water pass through it.



How do you think we could set up an experiment to test how permeable rocks are?



Discuss your ideas.





One way to test this is to drop a small amount of water onto different rock samples and see if the water runs off the rock or not. You could use a pipette to measure the amount of water and drop it on accurately.



To make this a fair test, you would have to use the same amount of water for each rock and a similar size of rock. If you tested a tiny rock and a large rock, the results might not be accurate.

