

A tall, balanced stack of rocks on a mountain peak. The stack is composed of several layers of flat, light-colored stones, with a few darker stones interspersed. The background shows a vast, hazy valley with rolling hills and mountains under a cloudy sky. The foreground consists of more rocks and a dirt path.

ROCKS



This half term you will become geologists.

Geologists are scientists that study what makes up the Earth. We will be focusing on rocks.

A scenic mountain landscape with a rock stack in the foreground and a text box in the center. The background shows rolling hills and a cloudy sky. The foreground is filled with various types of rocks, including some stacked in small piles. The text box is white with a black border and contains the following text:

L.O. I am learning to compare and group together different kinds of rocks.



What is a rock?

Rock is a hard material made up of one or more minerals. Rock makes up the outer layer of Earth, called the crust. The lower parts of this layer are solid rock, or bedrock. Broken bits of rock lie on top. The tiniest bits of rock make up sand and soil. Rocks are naturally occurring and not man-made, although they can be shaped by humans and used for difference purposes.



Do you know any famous rocks?



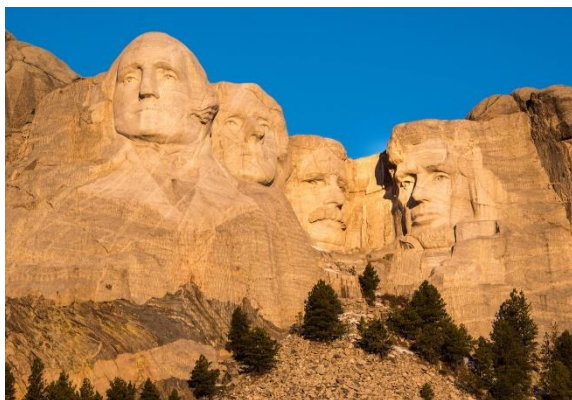
**Pulpit Rock, Portland Bill,
Dorset**



**Stonehenge,
Wiltshire**



**Durdle Door,
Dorset**



**Mount Rushmore,
South Dakota, USA**



**Uluru (Ayers Rock),
Australia**



**Grand Canyon,
Arizona, USA**



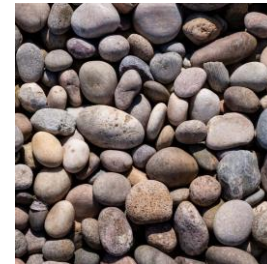
Rocks come in all shapes and sizes.

What types of rock do you know?

Boulder (a large rock)



Pebble (a small rock that has been made smooth by water or wind)



Stone (smaller and rougher than a pebble)





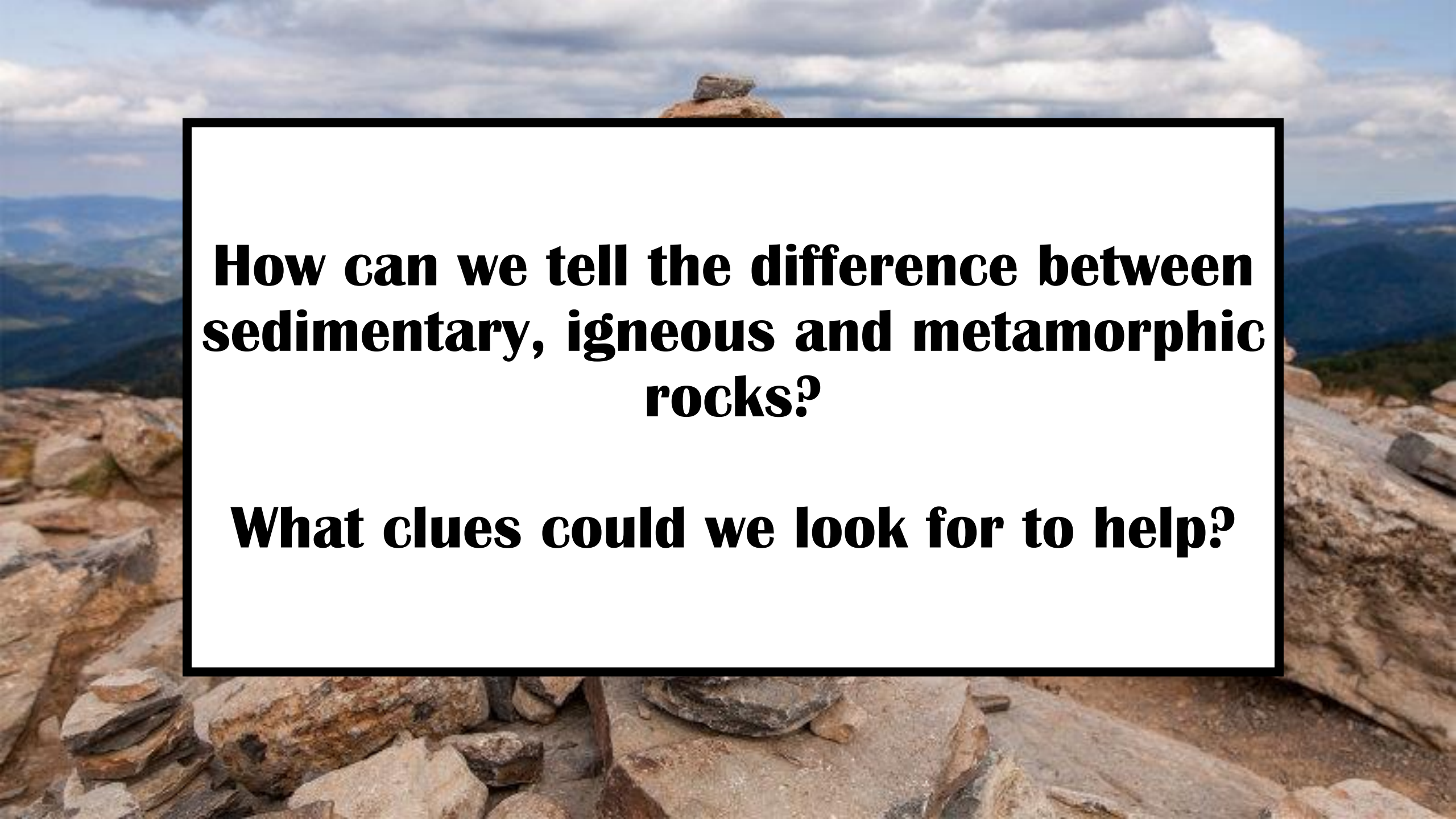
However, vocabulary like boulder, pebble and stone are not scientific enough for geologists.

They need words that are more specific to the type of rock so they can group them in ways that allow them to study their similarities and differences carefully.

What is a rock?

Click on the picture to find out more. Watch the clip, read the information and complete the quizzes.





How can we tell the difference between sedimentary, igneous and metamorphic rocks?

What clues could we look for to help?



Sedimentary Rocks

Sedimentary rock is often found in layers. One way to tell if a rock sample is sedimentary is to see if it is made from grains. Some samples of sedimentary rocks include limestone, sandstone, coal and shale.



Igneous Rocks

Igneous rocks form when magma from inside the Earth moves toward the surface, or is forced above the Earth's surface as lava and ash by a volcano. Here it cools and crystallizes into rock. Look for crystals scattered throughout igneous rocks. Examples of igneous rocks are gabbro, granite, pumice and obsidian.



Metamorphic Rocks

Metamorphic rocks are rocks that have become changed by intense heat or pressure while forming. One way to tell if a rock sample is metamorphic is to see if the crystals within it are arranged in bands. Examples of metamorphic rocks are marble, schist, gneiss, and slate.

What type of rock is this?
Sedimentary, igneous or metamorphic?



What type of rock is this?
Sedimentary, igneous or metamorphic?



What type of rock is this?
Sedimentary, igneous or metamorphic?





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Igneous rock

Scattered crystals



Metamorphic rock

Layered crystals

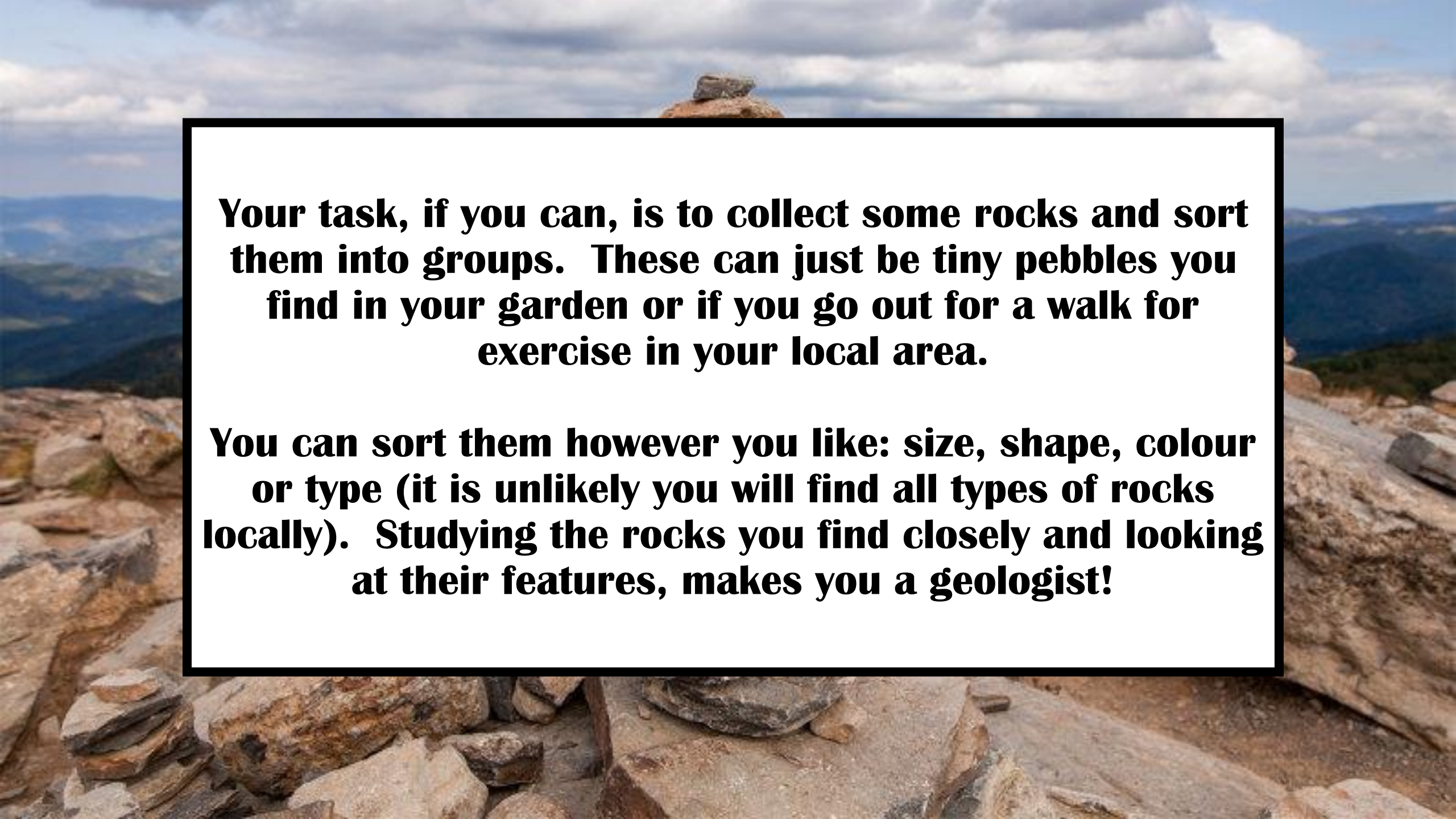


Sedimentary rock



Grains

www.MiniMeGeology.com



Your task, if you can, is to collect some rocks and sort them into groups. These can just be tiny pebbles you find in your garden or if you go out for a walk for exercise in your local area.

You can sort them however you like: size, shape, colour or type (it is unlikely you will find all types of rocks locally). Studying the rocks you find closely and looking at their features, makes you a geologist!