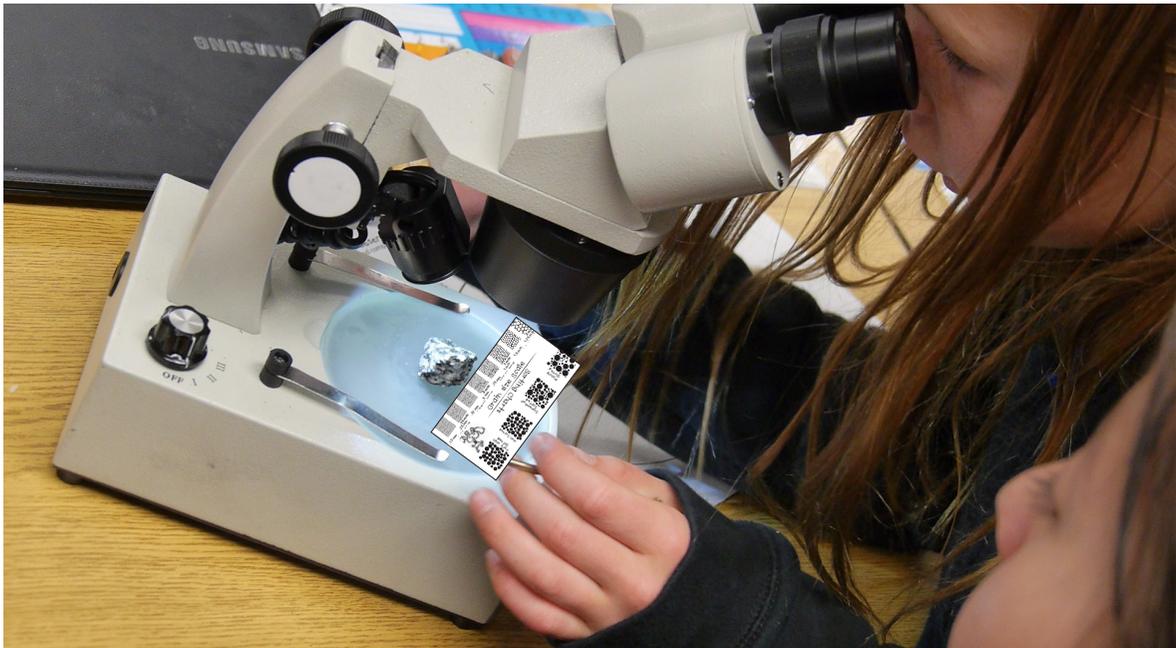


GO FIND SOME ROCKS!

Use your grain size card and microscope to describe rocks you find outside!
You can also look at Sandstone and mudstone samples if you have them.

What you'll need:

- A rock from outside. Optional- sandstone mudstone, granite samples if you have them.
- Meeka microscope.
- Grain size card.

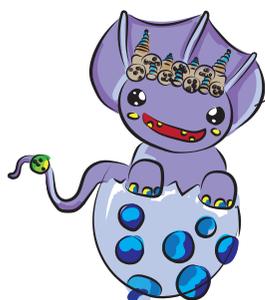


Use your grain card to describe your rocks.

What you'll do:

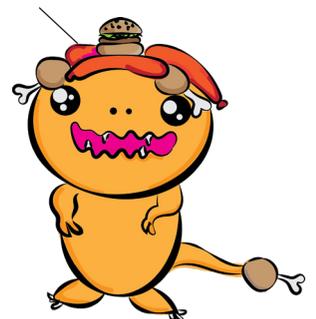
1. Bring one rock sample to your desk.
2. Use the microscope and rock card to describe your samples.
3. If your rock is not made of sediment it is made of crystals! Try and see if your rock is full of crystals or sediments. Sediments will look like little grains of sand stuck together. Crystals will have shiny surfaces.

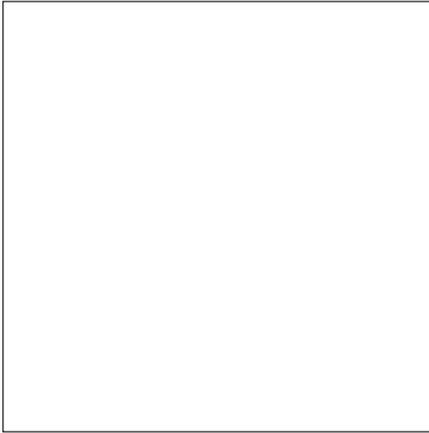
Some rocks are made out of crystals and some are made out of a lot of sediments stuck together. Use your card to see what you have!



When rocks are freshly broken they have sharp, angular edges.

As rocks are washed downhill by rivers, they bump against each other and become rounded.





Rock I collected from outside!

Use a microscope to observe and describe your sample, draw it here.

Describe your sample (color, hardness, feel).

Example: My rock is gray and rough.

Describe grain size

- fine grained
- medium grained
- coarse grained
- No grains. I see crystals!

Answers will vary.

Example: The grains are very small. I barely see them even with a microscope.

Describe grains or crystals

- well sorted grains
- Poorly sorted grains
- No grains. I see crystals!

Answers will vary.

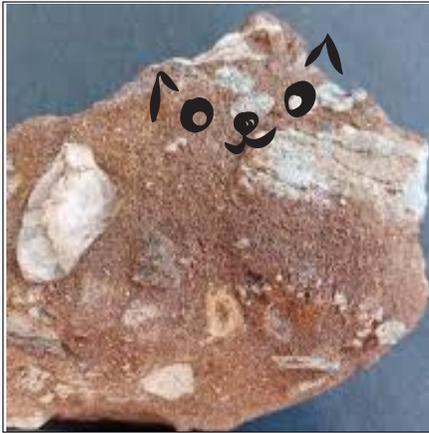
Example: They are all similar sizes. They are very small and I do not see any larger particles mixed in.

Describe grains roundness

- well rounded round
- angular
- No grains my rocks is made of crystals

Answers will vary.

Example: They are round.



Sandstone

Describe the rock in this picture or use a microscope to observe a sandstone sample.

Describe the sandstone (color, hardness, feel).

Example: My sandstone is red and crumbly.

It feels rough.

Describe grain size

- fine grained
- medium grained
- coarse grained
- No grains. I see crystals!

Answers will vary.

Example: The sandstone grains are very

small I also see very large grains almost like small rocks

Describe grains or crystals

- well sorted grains
- Poorly sorted grains
- No grains. I see crystals!

Answers will vary.

Example: The grains are poorly sorted. They

are all different sizes.

Describe grains roundness

- well rounded round
- angular
- No grains my rocks is made of crystals

Answers will vary.

Example: The grains have sharp edges. They

are not smooth.

Sandstone's story: I can form in the ocean or on land. Ancient sand dunes and beaches can become sandstone.



Mudstone

Describe the rock in this picture or use a microscope to describe a sample of mudstone.

Describe your sample (color, hardness, feel).

Example: My mudstone is smooth and gray.

The grains are so small that I must use a

microscope to see them.

Describe grain size

- fine grained
- medium grained
- coarse grained
- No grains. I see crystals!

Answers will vary.

Example: The grains are less than 0.5

millimeters. I need a microscope.

Describe grains or crystals

- well sorted grains
- Poorly sorted grains
- No grains. I see crystals!

Answers will vary.

Example: The grains seem well sorted. They

are all nearly the same size.

Describe grains roundness

- well rounded round
- angular
- No grains my rocks is made of crystals

Answers will vary.

Example: The grains are round and have

smooth surfaces.

Mud stone's story: I commonly form where rivers dump into the ocean. The tiny particles of silt and mud float out into the ocean and eventually settle on the sea floor.



Granite

Describe the rock in this picture or look at a sample from your class. Describe the (color, hardness, feel).

Example: My rock has sharp edges and is

Black and white. I see shiny crystals!

Describe grain size

fine grained

Answers will vary.

medium grained

Example: I see shiny white crystals

coarse grained

and little black crystals.

No grains. I see crystals!

Describe grains or crystals

well sorted grains

Answers will vary.

Poorly sorted grains

Example: The crystals are all different sizes

No grains. I see crystals!

Describe grains roundness

well rounded round

Answers will vary.

angular

Example: I see crystals growing into each other.

No grains my rocks is
made of crystals

Granites story: I am made of crystals. Crystals form from magma cooling slowly underground! My crystals sparkle in the sunlight. I have dark and light crystals growing together. White crystals are made from an element called silica!