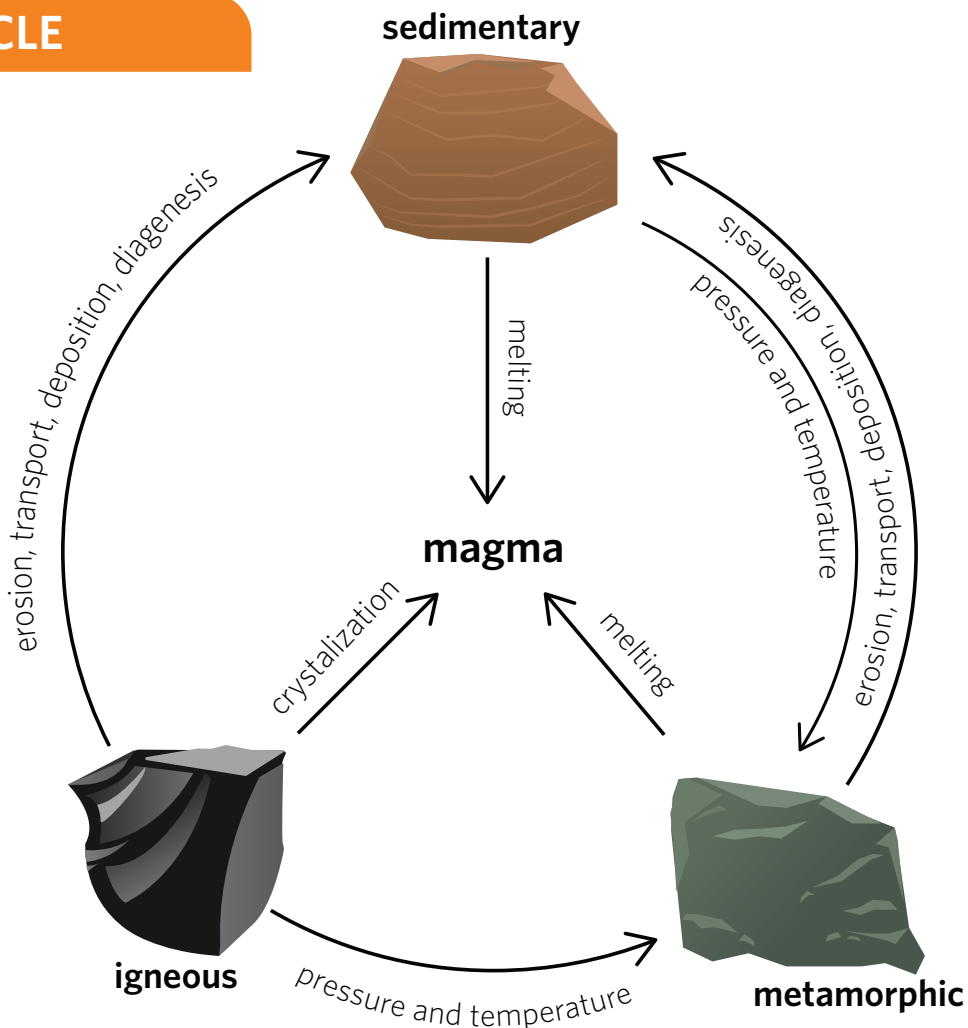


# ROCK TYPES



Geologists classify rocks into three types—sedimentary, metamorphic, and igneous. They are formed by various forces, including weathering, erosion, pressure, and heat. A rock can change between these three rock types through a slow and continuous process known as the rock cycle. Sedimentary rocks make up only 5% of Earth's crust, but cover ~70% of Earth's surface. They form via intense pressure and the process of cementation—when groundwater helps to bind sediments together. This process takes thousands of years, and layers can be distinguished by their unique textures, color, patterns, and shapes.

## ROCK CYCLE



The Jelly Roll was exposed before enough time had passed to complete its transformation from loose sediment to rock. If it had been left undisturbed, it would have eventually transformed into sedimentary rock under the pressure of the overlying protective layers.



# SEDIMENTARY SANDWICH

Sedimentary rock is formed when sediments are deposited by wind, gravity, ice, air, or water, and then compressed into layers. Make your own sedimentary sandwich!

## INGREDIENTS

- 1 Sliced bread (white, whole wheat, gluten free)
- 2 Spreads & condiments (peanut butter, jam, mayonnaise, mustard, etc.)
- 3 Sliced meat, cheese, tomatoes or lettuce
- 4 Larger "particles", such as cereal, chocolate chips, or pickles
- 5 Uncooked Manicotti, or other tube-shaped pasta

## INSTRUCTIONS

Using ingredients 1-4, make a sandwich with several layers. Make sure to use a variety of food items - get creative!

Put your hand on top of the sandwich & press down, pushing the layers together, and observe the pressure exerted on them.

Refrigerate the sandwich overnight.

Geologists often take core samples to determine the physical & chemical nature of the rock, and learn crucial information about Earth's past. Take a "core sample" of your own by using a manicotti pasta to drill out a piece of the sandwich. If no pasta is available, cutting the sandwich in half with a knife will expose the same cross-section.

Draw a picture of your sample, and label the layers. How is your sandwich like the sedimentary

