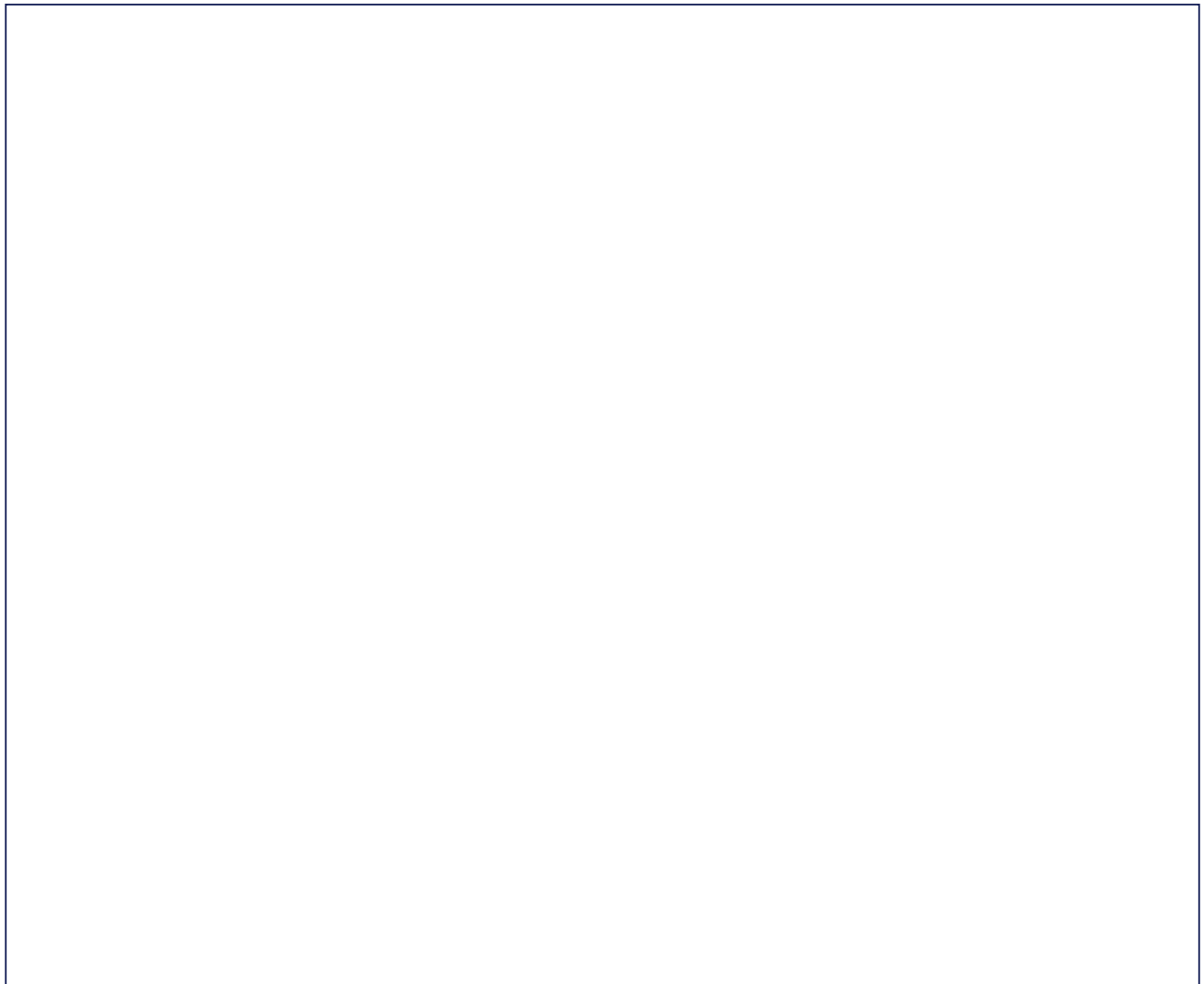


Nova's Geological Discovery: The Rock Cycle

Learning objective: To identify and describe the three types of rocks and explain how they are formed using the rock cycle.

Use your knowledge of geology to illustrate the journey of rocks. Follow the drawing steps below, label the features using the word bank, and complete the analysis questions to show your understanding.

Draw: Create a detailed scientific diagram of the Rock Cycle. On the left, draw a volcano erupting to show the formation of Igneous rock. In the center, draw a river depositing layers of sediment, which should be compressed into Sedimentary rock. On the right, draw a mountain range where rocks are being squeezed by heat and pressure to become Metamorphic rock. Use arrows to show how the rocks can change from one type to another. Keep the style clean, clear, and informative, as if it were an illustration in Nova the Owl's science journal.



Label words: Igneous · Sedimentary · Metamorphic · Magma · Sediment · Pressure · Erosion · Volcano

Steps:

1. Step 1: Draw a volcano on the left side of your page and label the molten rock inside as 'Magma'. What happens to this magma when it cools on the surface?
2. Step 2: Draw layers of sand and pebbles at the bottom of a riverbed. Label these as 'Sediment'. Explain

how these layers turn into sedimentary rock over a long period.

3. Step 3: Label an area where intense heat and pressure are acting on a rock to turn it into 'Metamorphic' rock. Why is 'pressure' an essential part of this process?

4. Compare and contrast how Igneous rocks are formed versus how Sedimentary rocks are formed. Justify why they look so different.

5. What might happen to a piece of sedimentary rock if it were dragged deep underground near a tectonic plate boundary?

6. Explain why the rock cycle is described as a 'cycle' rather than a straight line of events.