

Nova's Guide to the Rock Cycle

Learning objective: To describe the formation of igneous, sedimentary, and metamorphic rocks and explain how they change over time.

Use this writing scaffold to help Nova the owl explain the rock cycle. Use the word bank to help you link your ideas together and ensure you use scientific terminology correctly.

Deep beneath the Earth's surface, the rock cycle is a continuous process that transforms the landscape over millions of years.

Word bank: magma · sediment · pressure · crystallisation · erosion · consequently · furthermore · subsequently · in contrast · over time

1. Igneous Rocks: How does molten magma turn into solid rock? Start your paragraph by explaining the process of cooling and crystallisation... (2 marks)

2. Sedimentary Rocks: Describe how layers of sediment build up over time. What role do weathering and erosion play in this process? Start with: 'When rocks are broken down by the elements...' (2 marks)

3. Metamorphic Rocks: Explain what happens to existing rocks when they are subjected to extreme heat and pressure. Start with: 'Deep within the Earth's crust, rocks undergo a metamorphosis because...' (2 marks)

4. The Cycle: How does a metamorphic rock eventually become magma again? Explain the circular nature of this process starting with: 'Eventually, the cycle continues when...' (2 marks)

5. Reflection: Why is it difficult for humans to observe the full rock cycle in real-time? Use the word 'geological' in your answer. (2 marks)

Extension challenge: Research a specific rock, such as granite, limestone, or marble. Write a short paragraph explaining which category it belongs to and one physical property it possesses.