

Nova's Rock Detective Challenge

Learning objective: To compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.

Nova the owl has been collecting different stones for her study. Your task is to sort the rocks into three groups based on how they were formed: Igneous, Sedimentary, or Metamorphic. Read the clues for each rock type and write the correct name in the box next to the description. Then, look at the list of rock names below and place them into the correct 'rock group' table.

Word bank: Igneous · Sedimentary · Metamorphic · Granite · Sandstone · Marble · Basalt · Limestone · Slate

1. Clue 1: These rocks are formed from layers of sand, mud, and pebbles that have been squashed together over a long time. They often contain fossils. Which rock type is this? (2 marks)

2. Clue 2: These rocks are formed when hot, melted rock (magma or lava) cools down and turns solid. Which rock type is this? (2 marks)

3. Clue 3: These rocks were once other types of rocks, but have been changed by intense heat and pressure deep underground. Which rock type is this? (2 marks)

4. Sort the following rocks into the correct column: Granite, Sandstone, Marble, Basalt, Limestone, Slate. (6 marks)

5. Nova found a rock that has tiny, visible crystals in it. Which type of rock do you think it is, and why? (3 marks)

Draw: Draw a picture of a 'Sedimentary' rock showing the different layers of sand and sediment building up over time. Label one of the layers 'Fossil'.



Extension challenge: Go on a rock hunt in your garden or local park. Find two different stones. Describe their texture (smooth, rough, bumpy) and their colour. Can you guess if they are hard or soft?