

# Trend Task: Rock Detective

Approach: One to one  
 Focus: Identifying rocks  
 Resources: Rocks (A,B,C,D), graph, descriptions card, recording book

Year: 8

## Questions / instructions:

In this activity you will be describing some rocks and thinking about how they could have been formed. Here are four rocks. Pick them up to see what they are like.

### Hand out rocks.



- Here are some words to describe these rocks. I want you to match the rocks with these descriptions.

Place descriptions card in front of student and read the descriptions to the student.

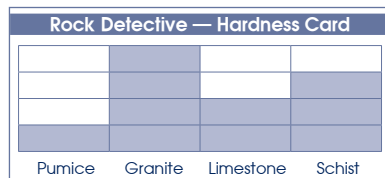
**Rock Detective — Descriptions Card**

- It is very light and full of holes.
- It is dense or solid and heavy.
- It is a whitish colour and feels sandy.
- It has silvery layers.

- Description 1:** D - Pumice  
**Description 2:** A - Granite  
**Description 3:** B - Limestone  
**Description 4:** C - Schist

Now you are going to try and work out the names of the rocks using this graph. The graph shows how hard the different rocks are. The rocks are pumice, granite, limestone and schist.

### Hand out graph.



% response  
2007 ('03)  
year 8

99 (100)  
52 (60)  
94 (93)  
58 (68)

% response  
2007 ('03)  
year 8

- Which rock do you think is pumice? **D** 95 (95)
- Which rock do you think is granite? **A** 40 (52)
- Which rock do you think is limestone? **B** 57 (55)
- Which rock do you think is schist? **C** 34 (37)
- Can you tell me about how one of these types of rocks was made?  
 PROMPT: Which rock?  
 How was it formed?

### Explanation:

**Limestone (sedimentary rock):**  
 - made from (crushed) sea shells (of dead sea animals)  
 - buried together (with sand)

**Pumice (igneous rock):**  
 - came out of a volcano (volcanic lava)  
 - cooled/hardened quickly  
 - gas bubbles/air got trapped in it (is full of holes)

**Schist (metamorphic rock):**  
 - came from deep underground  
 - where it was pressured and got very hot  
 - minerals grew (gives it its silvery layers)

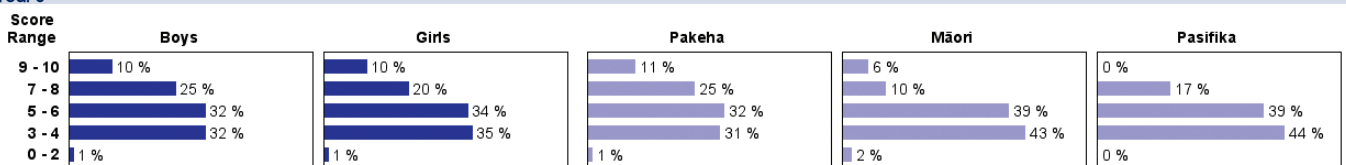
**Granite (igneous rock):**  
 - hot rock (magma) underground  
 - cooled/hardened slowly

substantial, quite accurate 9 (10)  
 limited 27 (33)

**Total score:** 9-10 10 (14)  
 7-8 22 (28)  
 5-6 33 (33)  
 3-4 34 (24)  
 0-2 1 (1)

## Subgroup Analyses:

Year 8



## Commentary:

This popular task showed a moderate decline in year 8 student performance between 2003 and 2007.