

Task: Way Out There

Approach: One to one
 Focus: Solar system – earth, comets, moon
 Resources: 3 pictures

Year: 4 & 8

Questions / instructions:

Hand student planet picture.

Here is a picture taken from outer space of part of planet Earth.



1. What does this picture tell us about the shape of the earth?

- that the earth is a sphere (ball)
- that the earth is curved/round
- no relevant response

% responses
y4 y8

9 13
76 76
15 11

Hand student moon phase picture.

Here are some pictures of the moon on different nights.



3. Why does the moon look different on different nights?

- because the sun's light reflects off the moon to our eyes
- which parts of the moon are seen depends on the relative positions of the sun, earth and moon
- student gives a really clear example (such as seeing left side of moon because sun is shining from the left, as we are looking at the moon)

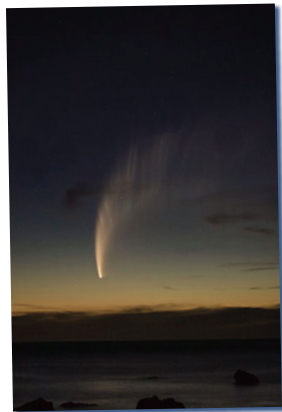
% responses
y4 y8

14 28

12 29

1 3

Total score: 4-9 6 16
3 11 19
2 28 30
1 45 31
0 10 4



Hand student comet picture.

Here is a picture of a comet seen in our night sky.

2. What is a comet?

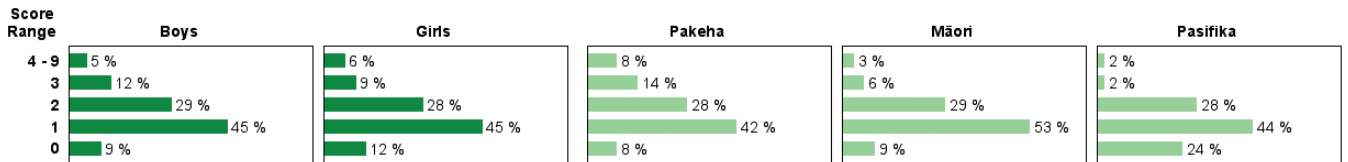
- a fast moving object in space
- a bright moving object in sky
- it has a tail
- it is made up of rock/ice/dust

14 25
13 13
3 7
6 16

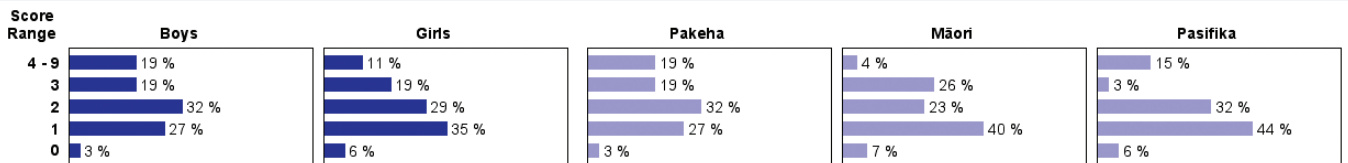
Images sourced from:
 1: NZCER; <http://arb.nzcer.org.nz/resources/science/planet/9000/pe9056.htm> (March, 2007).
 Originally derived, by NZCER, from <http://www.nasa.gov>.
 2: Cidadao, A., U.S.N.O., http://aa.usno.navy.mil/faq/docs/moon_phases (March, 2007).
 3: Roseingrave, M., <http://sn.mir.co.nz/entry.php?id=77> (March, 2007).

Subgroup Analyses:

Year 4



Year 8



Commentary:

Most students showed limited knowledge and understanding of these astronomical features or phenomena.