

## Lesson 13: The Martian Colony

### Teachers' Notes

The Mars Colony lesson challenges the common student idea that science knowledge is an unfolding catalogue of correct answers. Students are asked to look at a broad question "What is it like on Mars?" and to answer that question using information available to a previous generation of scientists. They should discover that the "wrong" answer of 100 years ago was sensible and reasonable at the time. Scientists make the most of the information they have.

The possibility exists of linking this lesson to the creative writing of some of the greatest science fiction authors of the past 2 centuries, since HG Wells, CS Lewis and Jules Verne all wrote wonderful books on this very topic.

### Starter

Probable sequence:

***Observable from earth by just looking up!***

Mars is a planet, not a star. It moves across the star patterns. Mars is a reddish colour.

***Does not need an instrument but needs much more study and thought***

Mars travels around the sun in a circular orbit.

***Needs a telescope to see***

Mars has two tiny moons. Mars has a day that is a similar length to Earth's. Mars has "ice-caps".

***Needs a great telescope or a space probe***

Mars has a thin atmosphere. Mars has a huge volcano on it. The "ice cap" on Mars is made of Carbon dioxide. Mars has an average temperature similar to a freezer!

***Needs a robot lander***

Mars has a sandy surface. Soil samples have not shown any signs of life.

*The exact order isn't important...simply the idea that knowledge is developing over time.*