

# Discovering Mars - Educator's Guide (Ages 8-11)



## At the end of these Night Sky activities students will understand:

- Mars is an orange-coloured planet
- This colour comes from iron oxide on the planet's surface
- Mars has ice caps at its poles
- Mars has surface features including a giant volcano

## Astronomy background information

Mars is the fourth planet from the Sun in the Solar System. Often called the Red Planet, it appears noticeably orange in the sky. Orange was once regarded as a shade of red rather than a colour in its own right. Mars is about half as wide as Earth and is covered with pale desert areas with darker mountainous regions. There are ice caps at the planet's North and South Poles. Like Earth, Mars has a day and night cycle. Its day lasts just over 24 hours.

Mars is very cold and has a thin and unbreathable atmosphere. Like the Moon, Mars is covered in craters from meteoroid impacts. Space missions have discovered that the planet was less hostile in the past when its atmosphere was thicker. Large lakes and rivers once existed on Mars but its surface is now completely dry. Its colour comes from minerals which are rich in iron oxide just like rusty metal.

Mars has several huge inactive volcanoes. A group of four of these are very clearly visible in an area called Tharsis. One of these, Olympus Mons is the tallest known volcano in the Solar System. At 21 km high it is more than twice the height of Mt Everest.

## Night Sky App Essential Settings

Go to Night Sky Settings  and make sure the following Preferences are set.

### Turn On these Effects:

N/A

### Turn Off these Effects:

Show Satellites  
Show Glass Mythology  
Show Constellation  
Real Sky Representation

## Accessible Learning:

- Text size can be increased in the Preferences section
- Star numbers can be reduced by sliding two fingers down the screen

