

Moonsaic

Project Notes

This is a project designed for 7-11 year olds to put together a mosaic of the Moon using observations taken by the Liverpool Telescope. Being somewhat akin to a giant jigsaw puzzle of the Moon, the Moonsaic project encourages student's to practice pattern awareness and matching, but more than that, we hope it provides a fun project in the classroom that leads to a great poster for the notice board.

Additional learning objectives

1. Helps to demonstrate that the Moon is a sphere.
2. Highlights the different surface textures seen on the Moon, with detailed images of heavily cratered regions alongside much smoother lunar seas (Mare).
3. Shadowed craters and mountains show that the Moon is illuminated by the Sun.
4. Provides a link to teaching about phases of the Moon.
5. Allows comparison with the size of Solar System planets.

Instructions

We have constructed detailed images of the Moon using a mosaic of between 60 and 100 images from the Liverpool Telescope. The images were then split into more manageable sections to form the NSO Moonsaics. These are designed to overlap a little, which makes it easier for you to match with another image and then stick them together.

The various sections of the Moonsaics are available as JPEG image files that can be downloaded from the NSO website, with each JPEG being random part of the final complete picture. These can then be printed out and stuck together with each other, to create a large image of the Moon that can be pinned on a notice board in your school. All resources for the project can be found at the following web address -

www.schoolsobservatory.org.uk/discover/activities/moonsaic

Advisory Notes

- Do not scale the images to fit the page, you should be printing square Moon segments.
- Make sure that you print the JPEG images using the same method each time; otherwise they may appear on different scales, which will make assembling the moonsaic impossible.
- Because of dark patches on the Moonsaics, your printer may use up a lot of ink. To minimise the use of ink, we recommend you print out to A4, however, A3 will produce a final image that is 70% larger.