

Measuring the images

Students measure the size of the Moon in one of two ways, either ONSCREEN or from a PRINTED IMAGE (see below).

To measure the images onscreen:

- Launch the MOImage program on your computer;
- From the program, open the Moon image to be measured;
- Move the cursor between the two points to be measured, while holding the mouse button down. The distance in pixels between the two points will appear in the display box.

Alternatively, to measure the printed images:

- Print the image of the Moon. (To save your printer's toner, you may want to first invert the image in a program such as MOImage before printing, so there is less black to print.);
- Students measure the diameter of the Moon using a ruler that measures in millimeters or other fine gradations.

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Make certain that students record their results on the DATA PAGE for the activity.

The Moon need not be full for this activity. Students can measure the distance between any two prominent features on the Moon, instead of the actual diameter, provided the features are almost as far apart as the diameter of the Moon. For a crescent Moon, it is easiest to measure the distance between the points of the crescent.

IMPORTANT: Students should be advised to measure carefully.

The differences among the images will be small but significant. Students should keep accurate records of the names of each image and where in the sky (horizon or higher) the Moon was. The "Image Info File" that comes with each image will help, but this information may be lost if the image is processed or converted to a different file format.