

Lesson 8

MOON WORDS

OBJECTIVES:

- \* To learn some useful Moon vocabulary.
- \* To start analyzing the Moon data collected so far.

GRADES: 4 and up.

SCHEDULING:

This discussion will take one class period.

STUDENT SHEETS:

- \* Moon Vocabulary
- \* Moon Questions (a reference for you - do not hand it out)

DISCUSSION:

Tell the students to take out all their Moon records (Calendars, Sun-Moon, and star charts). Hand out the Moon Vocabulary sheet. Have the students take turn reading it aloud. Stop after each definition for any discussion your students want to have about the word.

Continue the discussion with the questions on the student sheet titled "Moon Questions". (Do not hand out the sheet, which will be used as one of the concluding activities in Week 6.) You can also use the questions below, as well as any raised by your students.

Some questions will probably be answered correctly today. Others won't. Do not provide any answers at this stage. Instead, record the students' conjectures (perhaps on large sheets of paper that all can see) and say that the accuracy of

the answers will be tested by further observations and record keeping. The main point of raising them is to make the students more observant and analytical in the remaining weeks of Moon-watching, so that they are able to answer the questions themselves by the end of the observing period.

If your students do not reach a certain conclusion at the end of a certain lesson, it probably means that they were not ready for it. Be patient: they will probably figure it out before long. Further observations and experiments can be used to resolve differences, or to propel discussion further.

\* Why is the First Quarter Moon called that even though it is a half-moon? (Because it takes place one-quarter of a moon cycle after New Moon.)

\* Why is the New Moon called that? (Because the "old" Moon gradually got smaller and disappeared, and a new Moon cycle is starting.)

\* How can the Moon be invisible sometimes? (Because it is in the general direction of the Sun. It is lost in its glare, and only the side of the Moon furthest from us is illuminated.)

\* How can you tell First from Last Quarter? (A First Quarter Moon is to the left of the Sun, it looks like a capital "D", and can be seen in the evening. A Last Quarter Moon is to the right of the Sun, it looks like a backwards "D", and can be seen in the morning.)

#### COMMENTS:

\* What Moon word can be changed into its opposite by changing one letter? (Answer: "waxing" and "waning".)

MOON VOCABULARY

CRESCENT: less than a half-moon

FIRST QUARTER: the half-moon that follows the New Moon

FULL MOON: you already know this one

GIBBOUS: more than a half-moon

LAST QUARTER: the half-moon that follows the Full Moon

NEW MOON: Moon that is invisible, no matter when or where you look, or what the weather is like

WANING: getting smaller

WAXING: getting bigger