

Moon Phase Loop

Track how the Moon's position changes what you see.

SC.8.E.5.9 "Explain the impact of objects in space on each other including: the Sun on the Earth including seasons and gravitational attraction the Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body."

NAME _____

DATE _____

1 LABEL THE MODEL _____ Word bank below

Follow the arrows around the cycle. Write one process from the word bank in each numbered box.

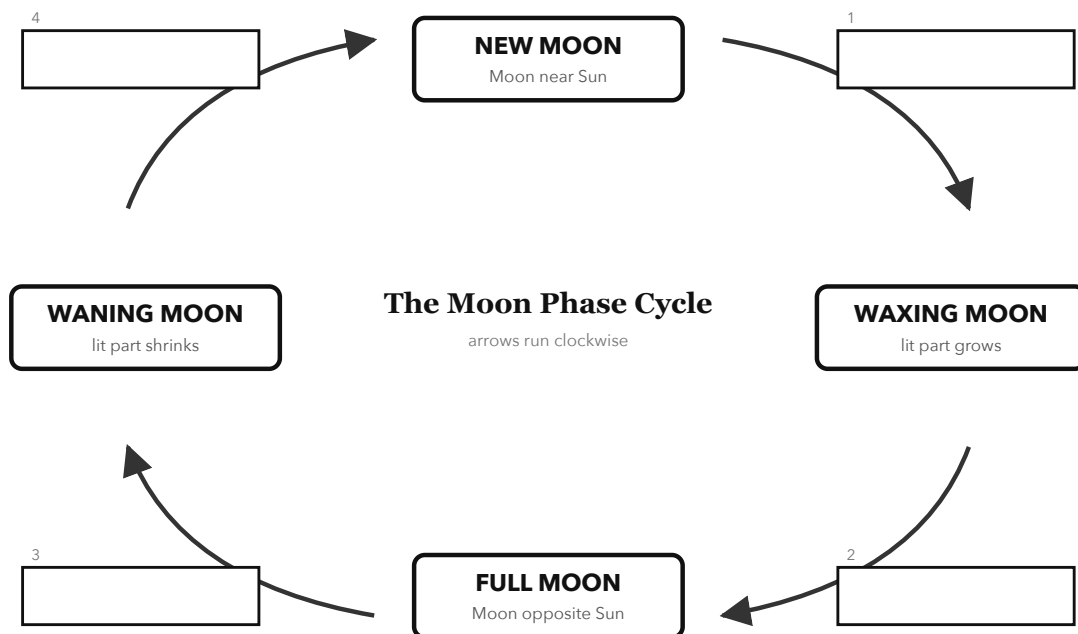
WORD BANK

moves away from Sun

moves toward Sun

reaches opposite Sun side

reaches Sun side



2 RUN THE MODEL _____ Use your finished diagram

1 Which stage comes right after the FULL MOON stage?

2 During which stage does the lit part you see get smaller?

3 At the FULL MOON stage, where is the Moon compared with the Sun?

3 CHECK IT _____ Before you turn it in

☐ I matched each process to an arrow.

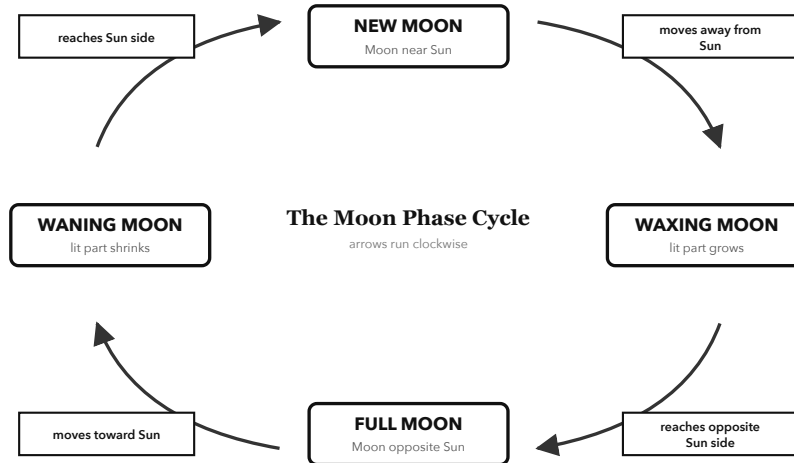
☐ I can name the four stages in order.

☐ I can describe the Moon's position at full Moon.

TEST THE MODEL

Name one space event or Earth effect this model leaves out. Explain why it matters.

PART 1 • COMPLETED MODEL



PART 2 • RUN THE MODEL

1. **WANING MOON** (Which stage comes right after the FULL MOON stage?)
2. **WANING MOON** (During which stage does the lit part you see get smaller?)
3. **The Moon is on the opposite side of Earth from the Sun.** (At the FULL MOON stage, where is the Moon compared with the Sun?)

TEST THE MODEL (SAMPLE ANSWERS)

- The model leaves out eclipses. Eclipses happen only when the Sun, Earth, and Moon line up closely.
- The model leaves out tides. The Moon's gravity changes ocean levels as Earth rotates.

The repeated cycle shows the changing relative positions of the Moon, Earth, and Sun that produce the main phases. The diagram simplifies the phases by grouping crescent and gibbous phases into waxing and waning stages.