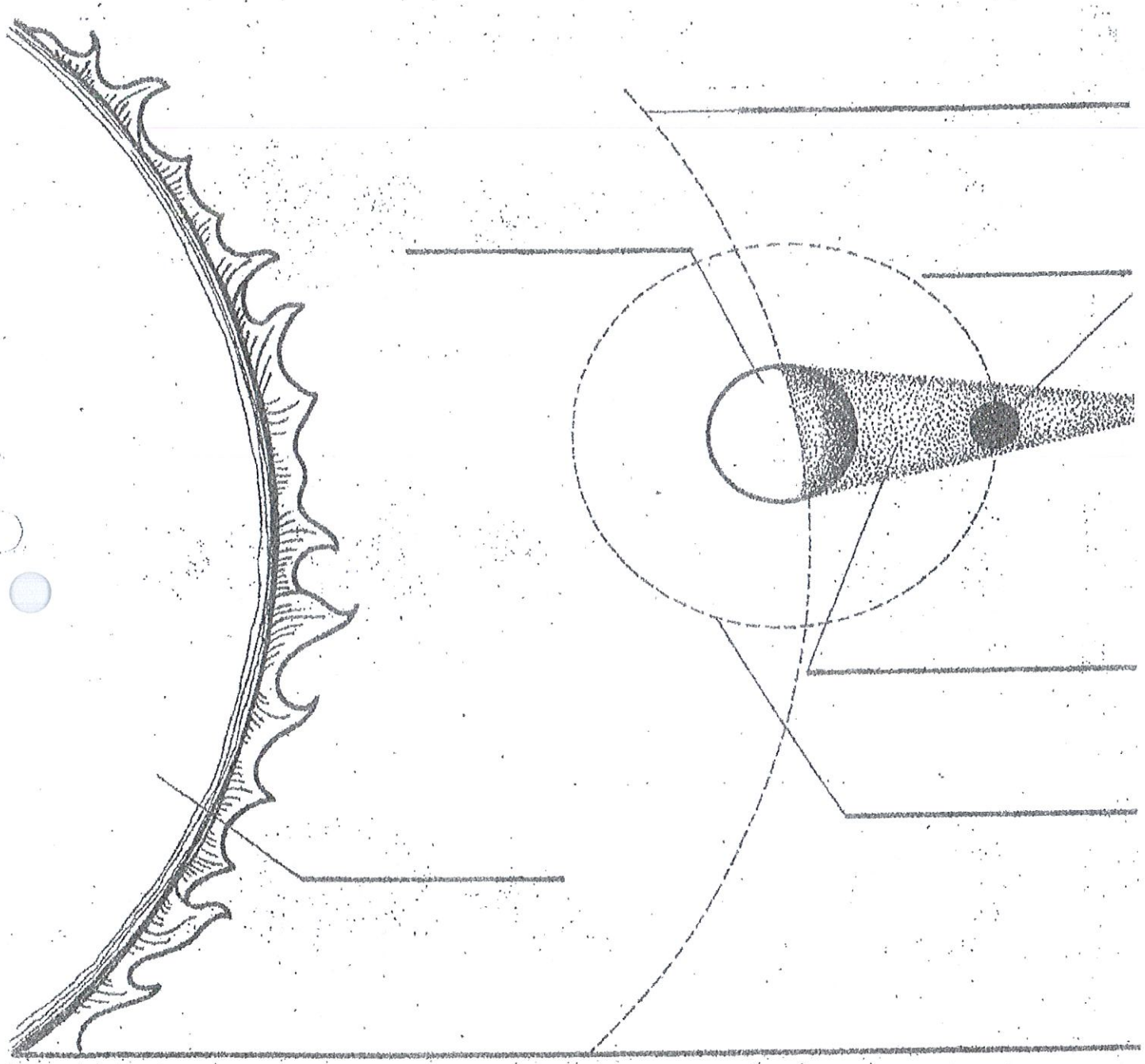
Earth Shadow

Name _____

Label each part of the diagram. Is this a solar or lunar eclipse? Why?



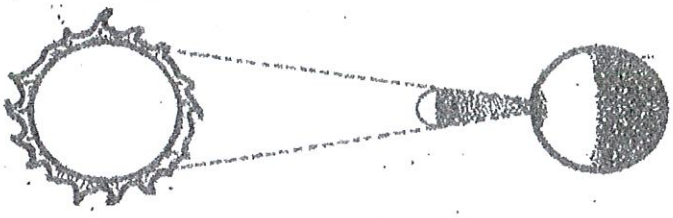
WORD BANK

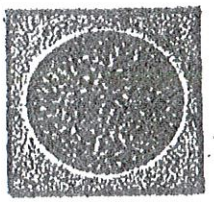
Earth orbit	moon orbit	moon
Earth	sun	Earth's shadow

Moon Shadows

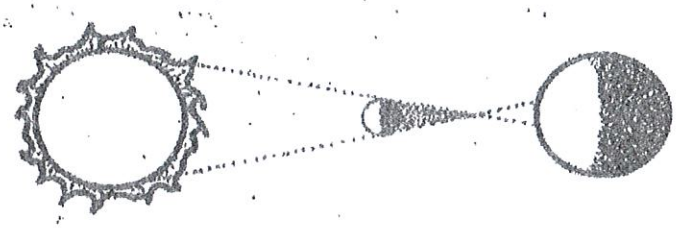
Name _____

Label each eclipse. Are these examples of solar or lunar eclipses? Explain.

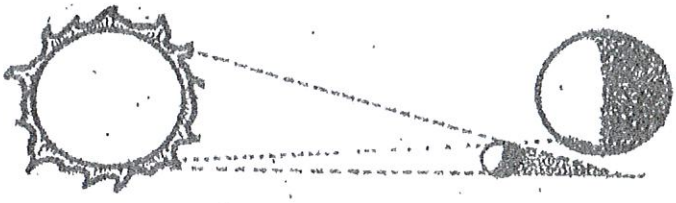




EXPLAIN: _____



EXPLAIN: _____

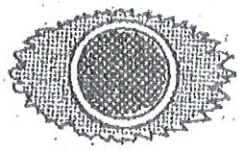


EXPLAIN: _____

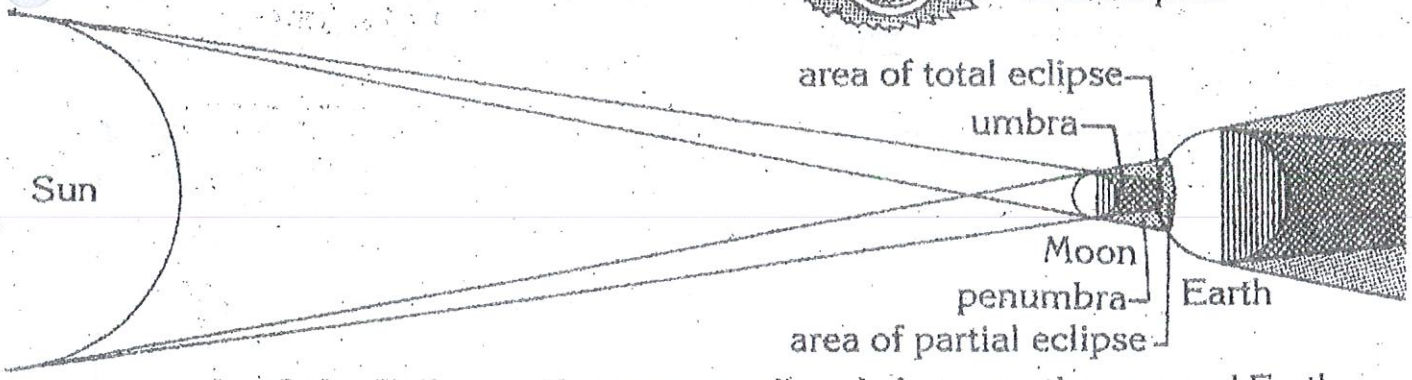
WORD BANK

total eclipse	annular eclipse	partial eclipse
sun	moon	Earth

Eclipses

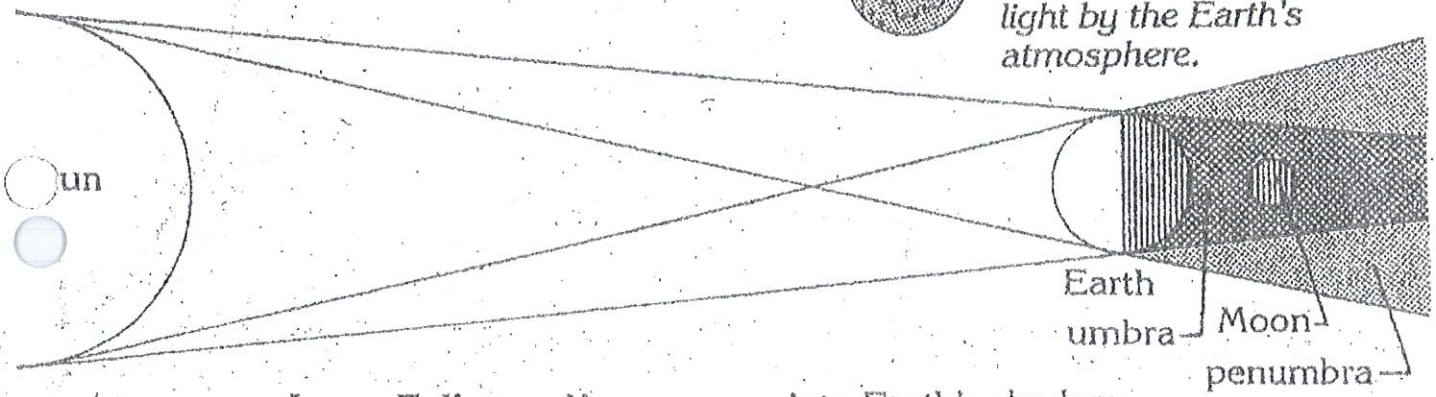


The sun's corona during total eclipse.



Solar Eclipse—Moon passes directly between the sun and Earth.

Total eclipse of moon shines with a dull orange glow due to scattering of light by the Earth's atmosphere.



Lunar Eclipse—Moon passes into Earth's shadow.

1. During a solar eclipse, the shadow of the _____ falls on the _____ ; in a lunar eclipse, the shadow of the _____ falls on the _____ .
2. The darkest part of a shadow is called the _____ ; the broader, outer part is called the _____ .
3. In a total solar eclipse, the sun's _____ is visible because the _____ blocks out the sunlight.
4. Why do partial eclipses of the moon occur more frequently than total solar eclipses?

_____

_____

_____

_____

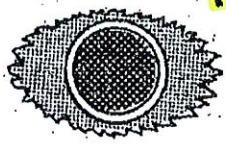
Space Shadows

Name_____

When the sun, moon and Earth are in the proper alignment, either the moon can cast a shadow on the Earth, or the Earth can cast a shadow on the moon. Draw the position of the moon and the shadows for both a lunar and solar eclipse. Label the type of eclipse.

Eclipses

This is a keeper!

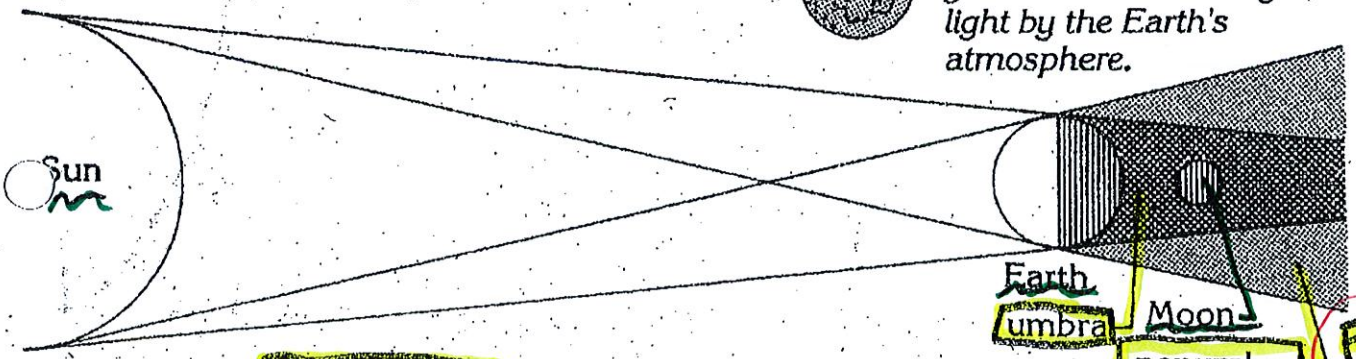


The sun's corona during total eclipse.

Solar Eclipse—Moon passes directly between the sun and Earth.

New moon

Total eclipse of moon shines with a dull orange glow due to scattering of light by the Earth's atmosphere.



Lunar Eclipse—Moon passes into Earth's shadow.

Full moon

1. During a solar eclipse, the shadow of the Moon falls on the Earth; in a lunar eclipse, the shadow of the Earth falls on the moon.

2. The darkest part of a shadow is called the umbra; the broader, outer part is called the penumbra. (wider)

3. In a total solar eclipse, the sun's corona is visible because the moon blocks out the sunlight.

4. Why do partial eclipses of the moon occur more frequently than total solar eclipses?

- Moon passes through Earth's penumbra often causing partial eclipse. (Earth's penumbra much larger than moon)
- Total eclipses are rarer b/c the S·M·E must be aligned and the moon's umbra covers a small area of the Earth's surface.
- In an annular eclipse the moon is too far from Earth to completely block the sun.

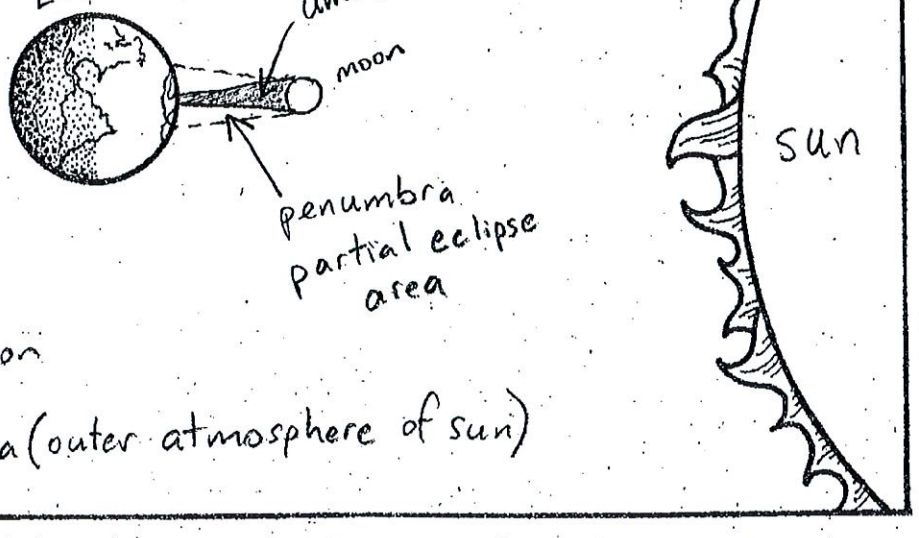
Space Shadows

Name_____

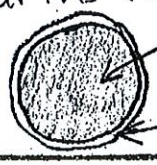
When the sun, moon and Earth are in the proper alignment, either the moon can cast a shadow on the Earth, or the Earth can cast a shadow on the moon. Draw the position of the moon and the shadows for both a lunar and solar eclipse. Label the type of eclipse.

Solar Eclipse:
moon blocks sun from Earth

New moon phase

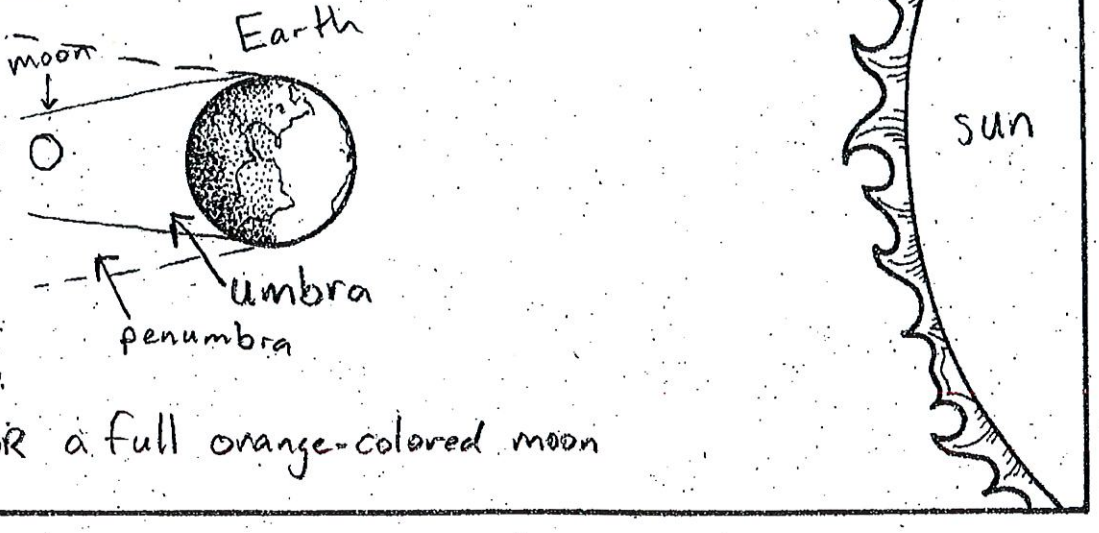


Earth's view:



Lunar Eclipse
Earth blocks sun from moon

Full moon phase



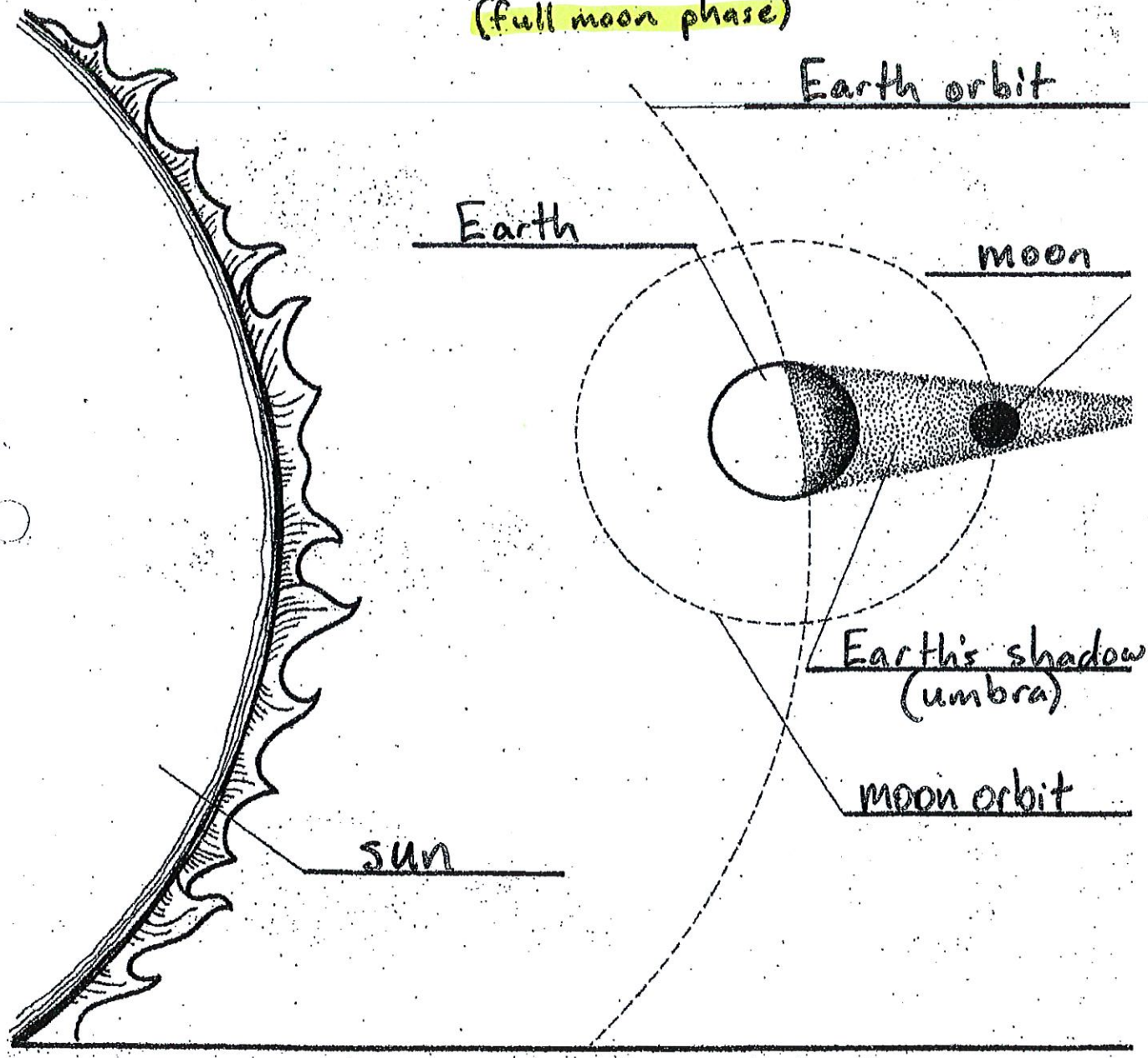
Earth's view:
Nothing OR a full orange-colored moon

Earth Shadow

Name _____

Label each part of the diagram. Is this a solar or lunar eclipse? Why?

Lunar... Earth blocking sun from moon. (full moon phase)



WORD BANK

Earth orbit	moon orbit	moon	
Earth	sun	Earth's shadow	

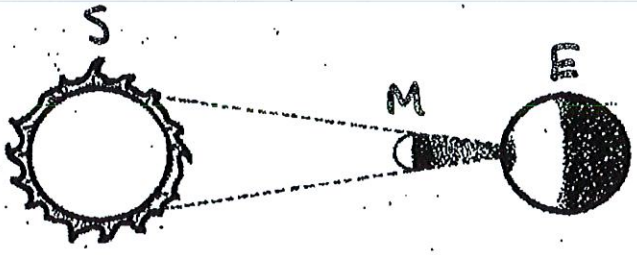
Moon Shadows

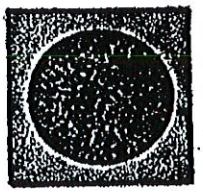
Name _____

Label each eclipse. Are these examples of solar or lunar eclipses? Explain.

Solar : moon blocks sun from Earth

New moon phase.

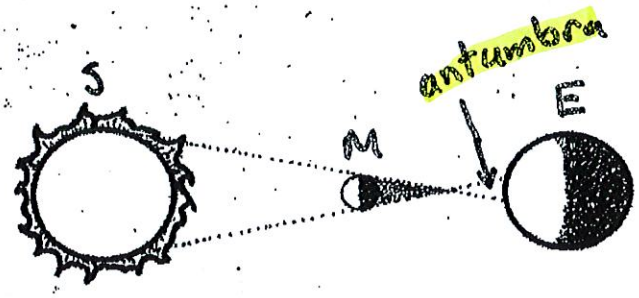




total solar eclipse

EXPLAIN:

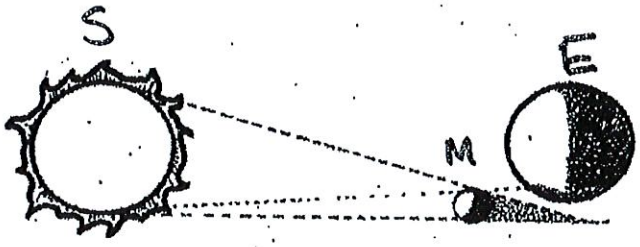
The sun is TOTALLY blocked by moon. The corona is visible.



annular eclipse

EXPLAIN:

The moon is blocking the sun, but not completely. Part of the sun is visible around moon.



partial eclipse

EXPLAIN:

The moon is partly blocking the sun.

WORD BANK

total eclipse✓	annular eclipse✓	partial eclipse✓
sun✓	moon✓	Earth✓