Lunar and Solar Eclipse Worksheet

Discuss the following questions in pairs or with your learning partner/group

Part 1: Lunar Eclipse

A lunar eclipse occurs when the Earth comes between the Sun and the Moon, causing the Earth's shadow to be cast upon the Moon. This can only happen during a full moon. When the Earth's shadow covers the Moon partially, it's called a partial lunar eclipse. When the Earth's shadow completely covers the Moon, it's called a total lunar eclipse. During a total lunar eclipse, the Moon can appear to have a reddish hue, often referred to as a "blood moon."

Questions:

1. What causes a lunar eclipse to occur?
2. When can a lunar eclipse occur?
3. What is a partial lunar eclipse?
4. Describe a total lunar eclipse. Why does the Moon appear reddish during a total lunar eclipse?

Part 2: Solar Eclipse

A solar eclipse happens when the Moon comes between the Earth and the Sun, blocking out the Sun's light. There are three types of solar eclipses: partial, annular, and total. In a partial solar eclipse, only a part of the Sun is blocked by the Moon. In an annular eclipse, the Moon appears smaller than the Sun, leaving a ring of sunlight around the Moon's edges. In a total solar eclipse, the Sun is completely covered by the Moon, causing a brief period of darkness during the day.

Questions:

1. How does a solar eclipse occur?
2. Name and briefly describe the three types of solar eclipses.
3. What is an annular eclipse? How does it differ from a total solar eclipse?
4. Why does a total solar eclipse result in darkness during the day?

Part 3: Compare and Contrast

Compare and contrast lunar and solar eclipses. Use the Venn diagram below to list the similarities and differences between the two types of eclipses.

Draw and label

a) The lunar Eclipse
b) Solar Eclipse

Questions:

1. What are the main similarities between lunar and solar eclipses?
2. What are the key differences between lunar and solar eclipses?

Bonus Question : Imagine you are watching a lunar eclipse from the Moon's surface. What would you see and experience? How would it be different from watching a solar eclipse from Earth?

Challenge Question : Research and describe an interesting cultural or historical significance of either a lunar or solar eclipse in different civilizations.

Take home

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