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| 1. Draw below a diagram of the position of the Earth, Moon, and Sun during a Solar Eclipse and a Lunar Eclipse. Label the Earth, Moon, Sun, Umbra, and Penumbra.

 SolarLunarImage result for lunar eclipse black and white clipart1. The diagram below shows which type of tide and moon phase.

\_\_SPRING\_\_\_\_ Tide Moon Phase \_\_\_\_NEW OR FULL MOON\_\_\_\_\_\_\_\_1. The diagram below shows which type of tide?

 \_\_\_NEAP\_\_\_\_\_\_\_\_ Tide Moon Phase \_\_\_1ST OR 3RD QUARTER\_\_\_\_\_\_\_\_\_1. What causes a tide? The gravitational pull of the moon contributes to 70% of the pull of Earth’s water. However, the sun also contributes to the pull of water. That is why the spring tide (combined pull of sun and moon – new or full) has a greater effect on Earths water than a neap tide (moon and sun at 90° angle -1st and 3rd quarter). The rotation of the Earth under the tidal bulge created by the sun and moon creates low and high tide.
2. Look at the moon chart shown below. Label each lunar phase with the correct phase name from the following list: **new moon, full moon, first quarter, last quarter, waxing gibbous, waning gibbous, waxing crescent, waning crescent**.

Image result for moon phases1. How long does it take the moon to revolve around the Earth? 28 Days
	1. What direction does the moon travel (clockwise / counter clockwises)?
	2. What is the difference in rotation and revolution? (Give examples)

Rotation = spinning on axis (24 hours) Revolution = amount of time it takes to complete 1 orbit = 365 Earth days1. What causes the changes of seasons? Earth’s tilt, as it revolves around the sun, causes the directness of light to increase or decrease causing seasons.

Label the Season in the Northern & Southern Hemisphere:Image result for label the seasons tilt of the earthWhat is the season for picture A?Northern Hemisphere:\_\_\_\_\_SUMMER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Southern Hemishpere: \_\_\_\_\_WINTER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is the season for picture B?Northern Hemisphere: \_\_\_\_\_FALL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Southern Hemisphere: \_\_\_\_\_\_SPRING\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is the season for picture C?Northern Hemisphere: \_\_\_\_\_\_\_WINTER\_\_\_\_\_\_\_\_\_\_\_\_\_\_Southern Hemisphere: \_\_\_\_\_\_\_SUMMER\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is the season for picture D?Northern Hemisphere: \_\_\_\_\_\_SPRING\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Southern Hemisphere: \_\_\_\_\_\_FALL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. What does Earth’s axial tilt have to do with the seasons? (Explain in at least 3-4 sentences.)

 The Earth is on a 23° tilt on its axis. This tilt allows more or less direct rays from the sun to hit the Earth. Those direct rays create greater or less warming of the Earth’s surface. That change in warming creates the different seasons we experience. If there were NO tilt the Earth would not experience these changes. Crops would not go ‘in and out’ of season. The amount of life certain places allow to thrive would drastically change. (There are more……)  |
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