

Name _____ Science-8 Period ____ Date _____

Windows to the Universe – The Moving Earth

Use the Windows to the Universe web site to make notes and observations about how the Earth moves in space.

(http://www.windows2universe.org/the_universe/uts/earth1.html&edu=high)

The Moving Earth:

1. What two ways is the Earth moving through space? _____ &

Click on "spinning like a top".

2. What is the angle of tilt for Earth's axis? _____
3. The plane on which the Earth orbits The Sun is called an _____.
4. Towards what star does Earth's North Pole always point? _____
5. How long does Earth take to rotate 1 time? _____ This is called one _____.
6. Earth's rotation is the reason why we have _____ and _____.

Click on "orbital motion".

7. Although Earth's orbit is _____, but it is close to being _____.
8. How long does it take for Earth to orbit the sun once? _____
9. The time it takes Earth to orbit once is called a _____.
10. Because of Earth's tilt and orbit around the sun, we get the _____.

Click on "seasons".

11. What season is it in the southern hemisphere when it is summer in the northern hemisphere? _____
12. In the northern hemisphere, we are closest to the sun during what season? _____

Click on "Earth's orbit and its rotation".

13. The Earth has seasons because of the _____ and _____.
14. The tilt & orbit result in varying amounts of _____ hitting our Earth.
15. The longest day occurs on the _____ and the shortest day occurs on the _____.
16. During the _____ & _____, the sun is directly over the equator resulting in day and night being equal length all over the world.

* Discuss and make note on the back of this sheet about the patterns you have noticed about Earth's motion in space.

~ ANSWER KEY ~

Windows to the Universe – The Moving Earth

Use the Windows to the Universe web site to make notes and observations about how the Earth moves in space.

(http://www.windows2universe.org/the_universe/uts/earth1.html&edu=high)

The Moving Earth:

1. What two ways is the Earth moving through space? [orbiting the Sun & spinning like a top](#)

Click on "[spinning like a top](#)".

2. What is the angle of tilt for Earth's axis? [23.5°](#)
3. The plane on which the Earth orbits The Sun is called an [ecliptic](#).
4. Towards what star does Earth's North Pole always point? [Polaris](#)
5. How long does Earth take to rotate 1 time? [24 hrs](#) This is called one [day](#).
6. Earth's rotation is the reason why we have [day](#) and [night](#).

Click on "[orbital motion](#)".

7. Although Earth's orbit is [elliptical](#), but it is close to being [circular](#).
8. How long does it take for Earth to orbit the sun once? [~ 365 days](#)
9. The time it takes Earth to orbit once is called a [year](#).
10. Because of Earth's tilt and orbit around the sun, we get the [seasons](#).

Click on "[seasons](#)".

11. What season is it in the southern hemisphere when it is summer in the northern hemisphere? [winter](#)
12. In the northern hemisphere, we are closest to the sun during what season? [winter](#)

Click on "[Earth's orbit and its rotation](#)".

13. The Earth has seasons because of the [tilt on its axis](#) and [orbit around the sun](#).
14. The tilt & orbit result in varying amounts of [sunlight](#) hitting our Earth.
15. The longest day occurs on the [summer solstice](#) and the shortest day occurs on the [winter solstice](#).
16. During the [autumnal equinox](#) & [vernal equinox](#), the sun is directly over the equator resulting in day and night being equal length all over the world.

PATTERNS: [students should discuss the day/night pattern due to Earth's rotation and the seasons due to Earth's tilt and orbit.](#)