

Warm-Up #7:

1. Which planet is most like Earth? Which planet has a massive volcano on it?
2. Order the following from smallest to largest:

Milky Way

Universe

Our Solar System

Jovian Planets: WebQuest Part II

- Get your chromebooks out!
- Same as yesterday, I will be collecting this worksheet at the end--make sure everything is filled out!
- <https://spaceplace.nasa.gov/planets/en/>

Earth's Motions

9.11.2018



M1: The Crab Nebula from Hubble
Image Credit: [NASA](#), [ESA](#), [Hubble](#), J. Hester,
A. Loll ([ASU](#))

NASA, ESA, Hubble & A. Loll/J. Hester (ASU)
Acknowledgement: Davide De Martin (ESA/Hubble)

Jovian Planets vs. Terrestrial Planets

Jovian Planets vs. Terrestrial Planets

Jovian Planets

*(Jupiter, Saturn,
Uranus & Neptune)*

Far from Sun

Large

Low density

Many moons

Circled by rings

Rotating rapidly

No solid surface

Strong storms

Terrestrial Planets

*(Mercury, Venus,
Earth & Mars)*

Close to the Sun

Small

High density

Few Moons

No Rings

Rotating Slowly

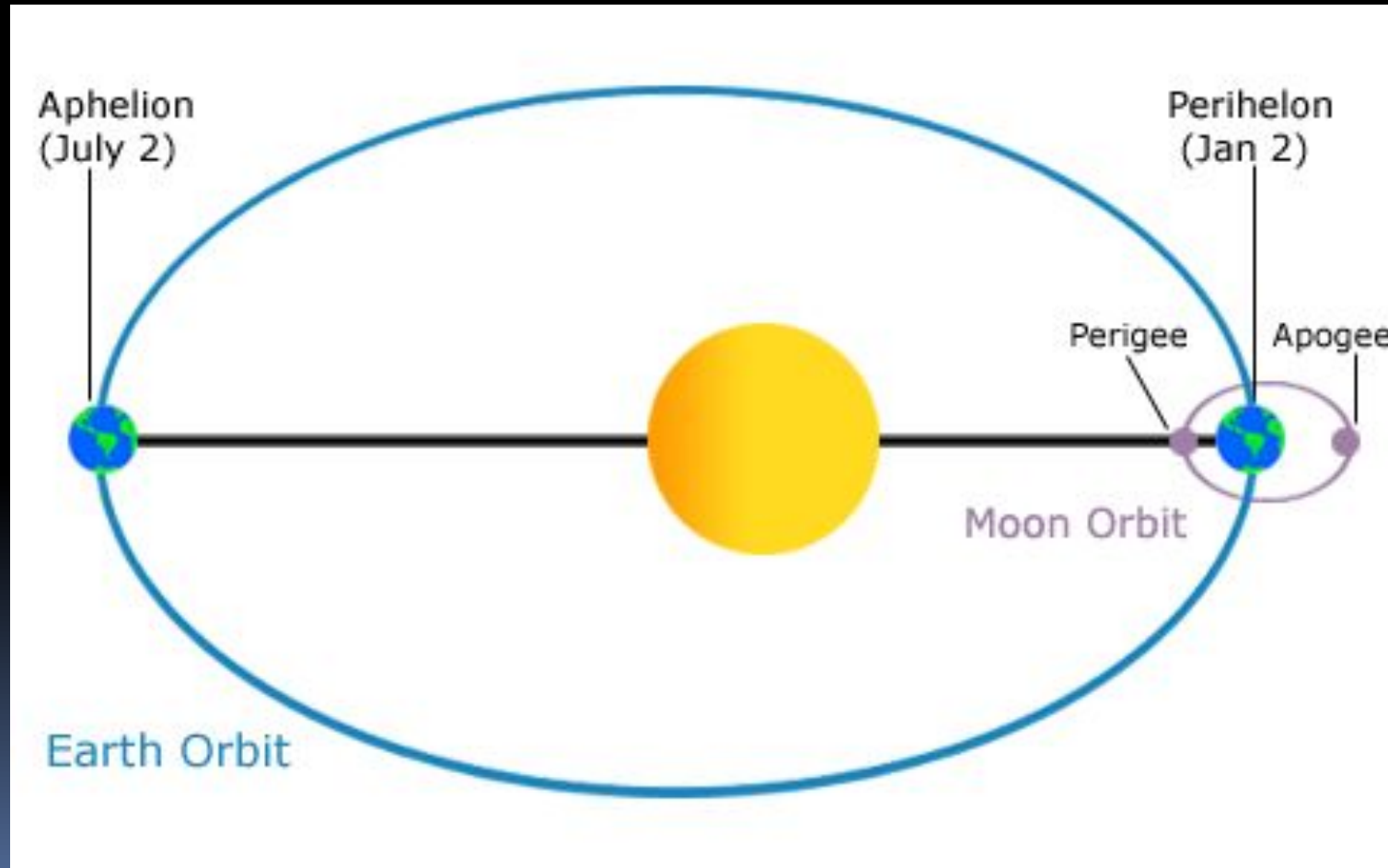
Solid Surface

Weaker winds &
storms

Earth's Motions

Winter – closest to the sun

Summer – farthest from the sun



• Precession

- The change in direction of the northern axis
- North star is different

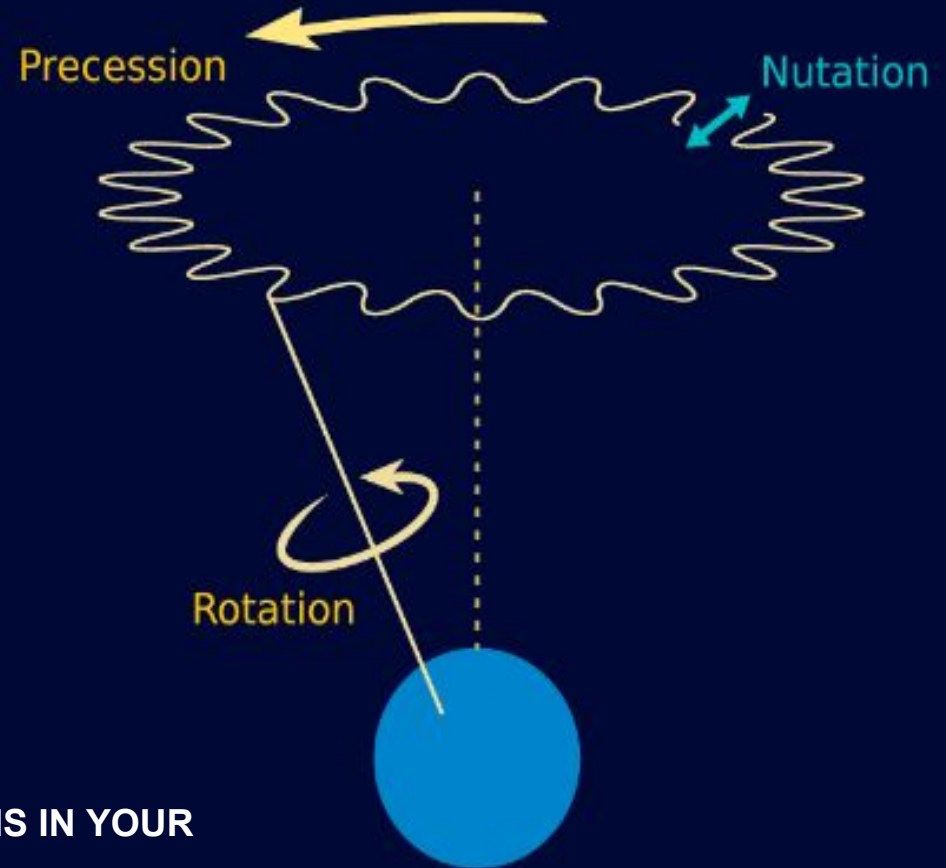
▪ Nutation

- Slight wobble, or change, in Earth's axis from 23 to 24 degrees
- Very slow movement due to the gravity of the moon

Earth's Motions

Precession, Nutation

(Not to scale)



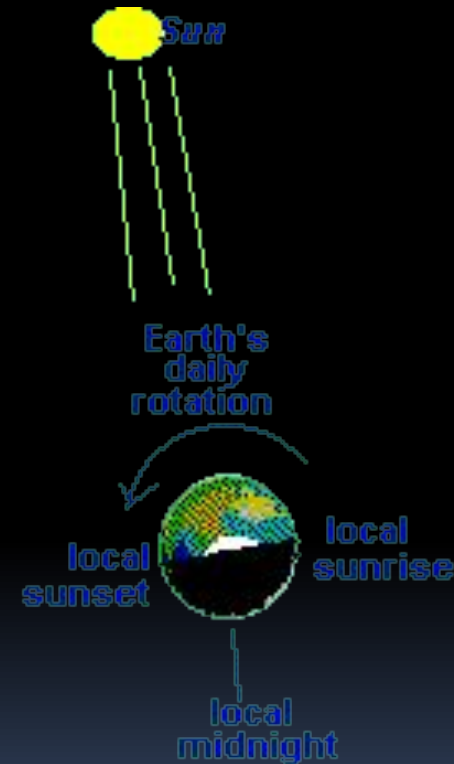
DRAW THIS IN YOUR NOTES!

Earth's Motions



• Rotation

- spinning of Earth from west to east on an axis
- It takes the Earth **24 hours** to rotate once! → Night and Day

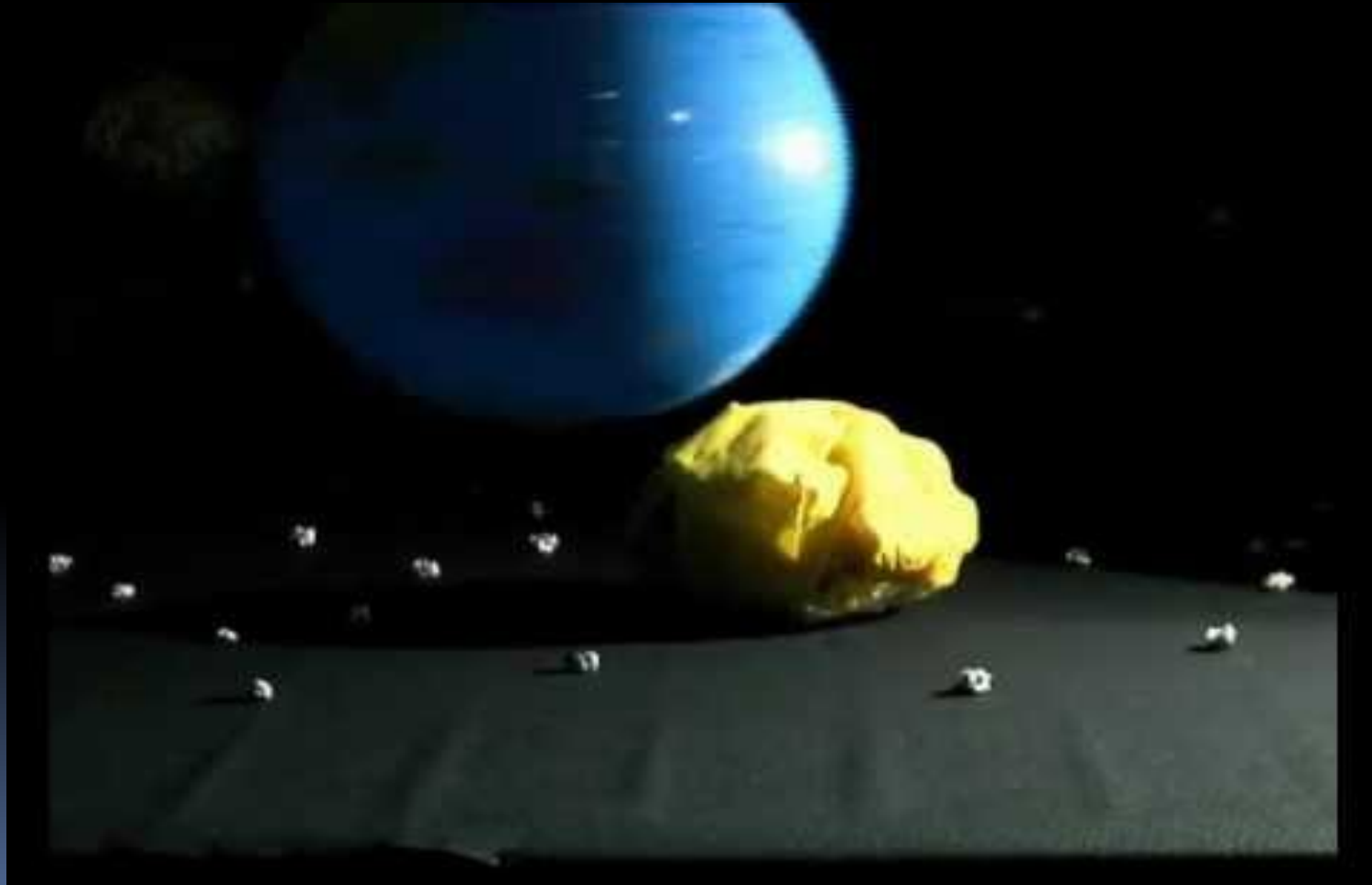


A View of the Earth from high above the North Pole.

• Revolution

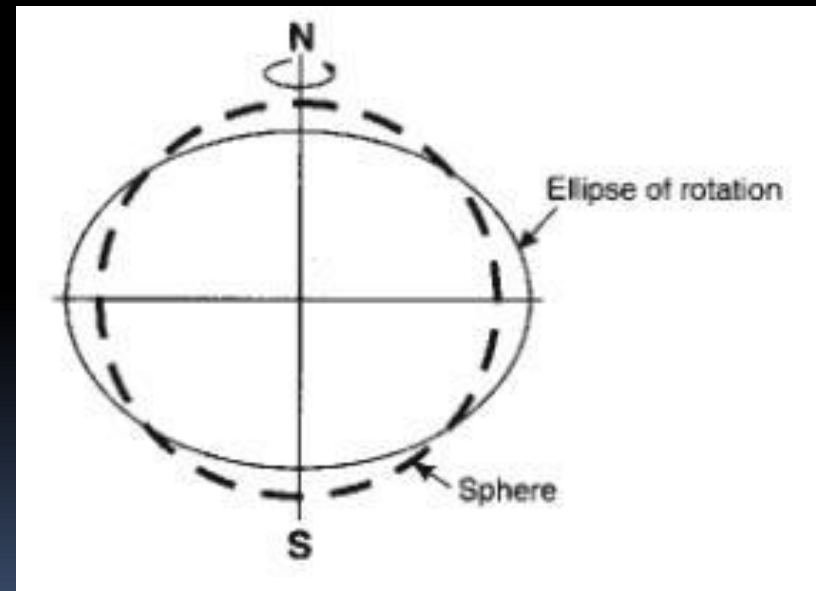
- Earth moves around the sun every 365¼ days
- The moon *revolves* around the Earth **ONCE** every year.

The **Rotation** of our Earth: This causes
Night and Day!!!

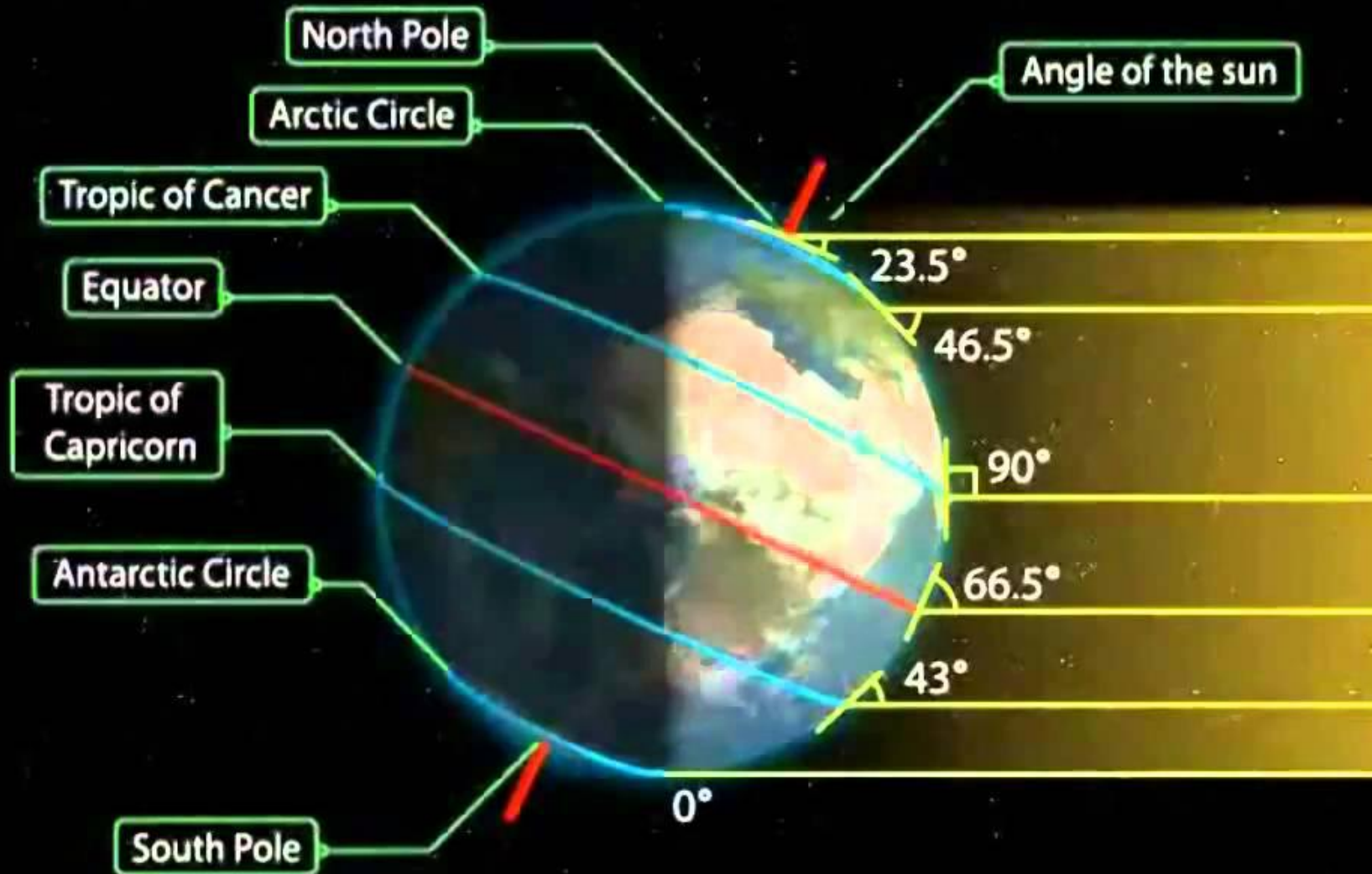


Equatorial Bulge

- The Earth is not completely round
- There is a bulge at the equator because of rotation of Earth on its axis



[Video Link](#)



Earth's Seasons = caused by the tilted axis

(23.5°)

Equinox = equal hours of daylight & darkness

Solstice = longest day & shortest day

