

# Tuesday 2-25-2020

- Bell Ringer: Describe nuclear fusion in the sun's core. Explain what atoms are fused and which atoms are produced.
- Today's Agenda:
  - Bell Ringer
  - Finish the Life of the Sun Diagram
  - Begin Theories, Facts and Laws Notes on OneNote
- Learning Objective: I can model the life cycle of our star, explain nuclear fusion in the core and describe the energy transfer mechanisms within the sun that move energy to Earth.

# Bell Ringer Answer

- Nuclear fusion is a reaction between the nuclei of atoms. Two atoms collide at high temperatures and form a new, larger atom. Our sun fuses hydrogen together to form helium.

# For Today:

- Please finish your life of the sun diagram.
- When finished open your OneNote to the Theories, Facts and Laws Notes Page
- On my website under the Astronomy 2 you will find the PowerPoint needed to fill in your notes.
- Headphones are up front for the video.



# Theories, Facts and Laws Oh My!

Created by your favorite Mrs. Gillin!

# What is a Fact?

- Think for a minute about what you know a fact is.....write down your example in your notes.

# What is a Fact?

- Think for a minute about what you know a fact is.....write down your example in your notes.
- A fact is defined as an observation that has been confirmed repeatedly and is accepted as true.
- Write down two more examples, can you think of some others?
  - $2+2=4$
  - The sun is a star
  - There are words in this sentence.
  - Water flows downhill naturally.
  - Earth is a planet.

# What is a Scientific Law?

- What is a law? Talk to your neighbor and try to come up with a definition for a law

# What is a Scientific Law?

- A scientific law is a little different than a legal law
- A scientific law describes the behavior of something:
  - Hold your pencil a foot above your desk, what happens if you let go?
  - This is the Law of Gravitation Attractions, Earth pulls on objects and we describe their behavior with the law, they fall.
  - The same thing happens if Mrs.G steps on her own shoelace, she falls.
- Can you think of another scientific law? Write it down, what does it describe?



# What is a Scientific Theory?

- A scientific theory is an explanation of natural phenomena (WHY does something happen).
  - It is supported by observational evidence (we can look at something)
  - Tested MANY times
  - Widely accepted in the scientific community
  - May change over time with new technology or evidence
    - Think about Geocentricity vs Heliocentricity, why did we stop thinking the Earth was at the center of the universe?
- Can you think of some theories? Write down two examples

# Watch the video

- Watch the video in your notes, if the link doesn't work follow the next step.
- Go back to Mrs. G's website and watch the video in Unit 5: Astronomy Part 2 called Theories, Facts and Laws.
- Give an example of each of these from the video in your notes.

# Summarize your notes and videos that you watched

- In your summary explain theories, facts and scientific laws.
- Laws describe what happen, theories describe why.