

# Monday, 8/28



- Pick up: Cornell Notes pg 16 & yellow pg 17
- Goal: Explain how Earth scientists help us better understand the world around us.



- **Why Earth Science ?**
- <https://www.youtube.com/watch?v=jxbIJH4fTYo>

Scientific knowledge is robust and open to change. This is because it is often examined and reexamined by new investigations and scientific argumentation.

Example: geocentric solar system (Earth at the center) to heliocentric solar system (Sun at the center)

# History of Earth Science Study

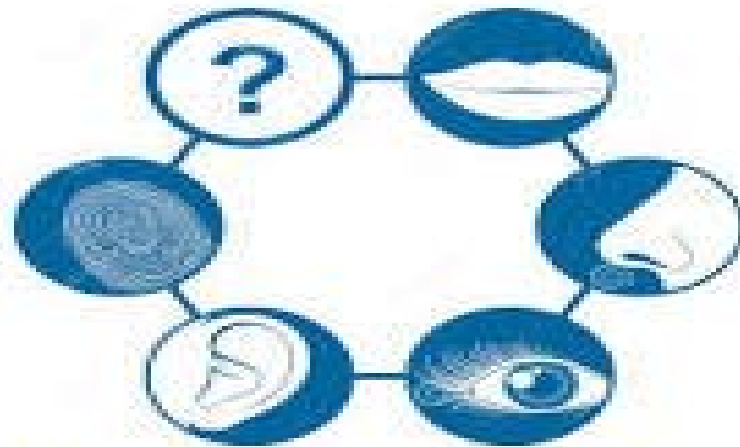
- **China** – 780 BCE kept records of earthquakes
- **Ancient Greece** – 200 BCE compiled catalog of rocks and minerals
- **Maya** 4000+ years ago created accurate calendars by observing the sun, stars, and moon.



- Earth scientists help us better understand the world around us by studying how natural forces shape our environment.

They do this by making observations and inferences.

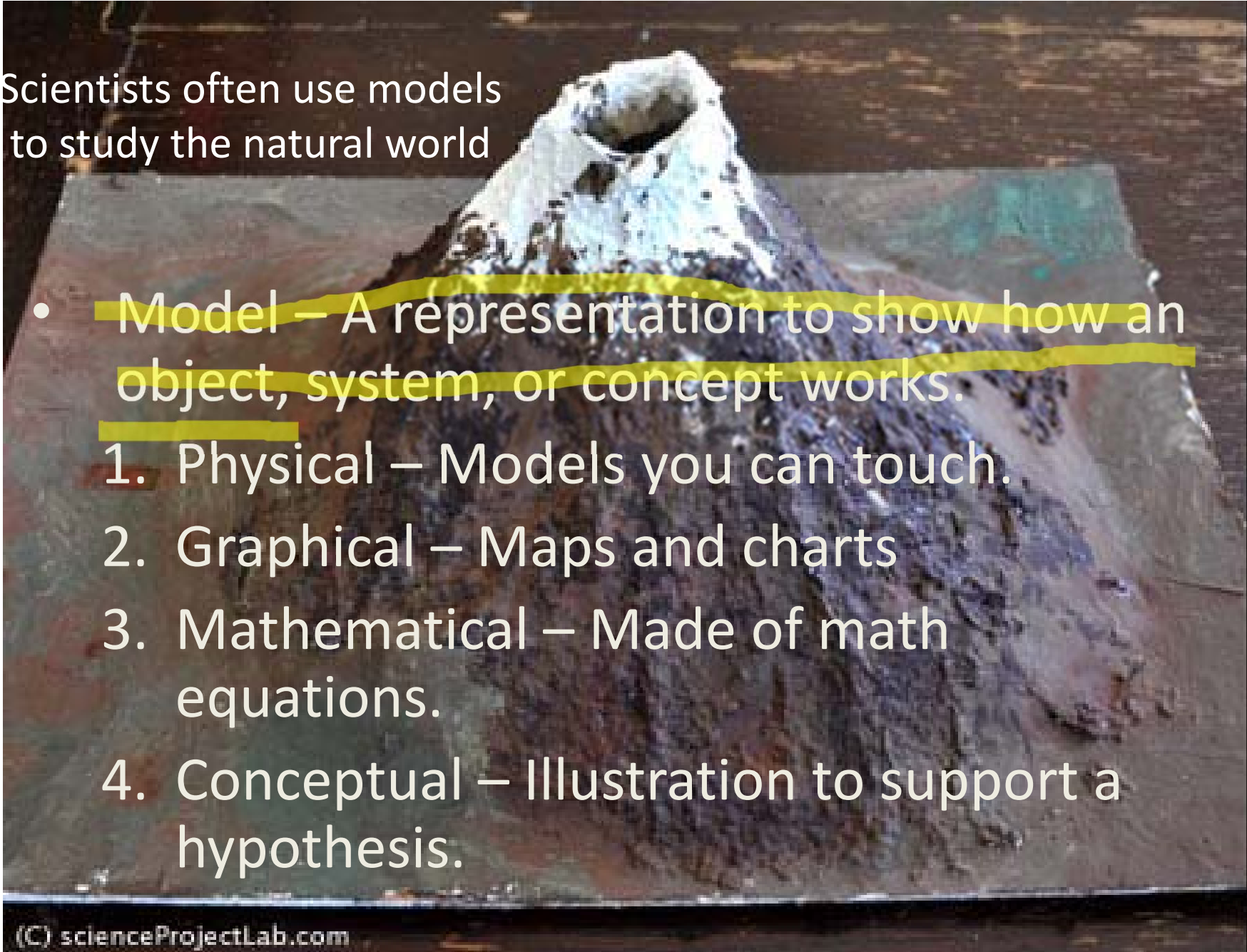
- **Observation** - Process of collecting information by using the senses



# Inference

- Conclusions based on observations.
- Are sometimes wrong.





Scientists often use models  
to study the natural world

- **Model** – A representation to show how an object, system, or concept works.
  1. Physical – Models you can touch.
  2. Graphical – Maps and charts
  3. Mathematical – Made of math equations.
  4. Conceptual – Illustration to support a hypothesis.

# Tropical Storm Fay

11 AM EDT Sat Aug 16 2008

Models: Points 12 hours apart (GFDL 6 hours)

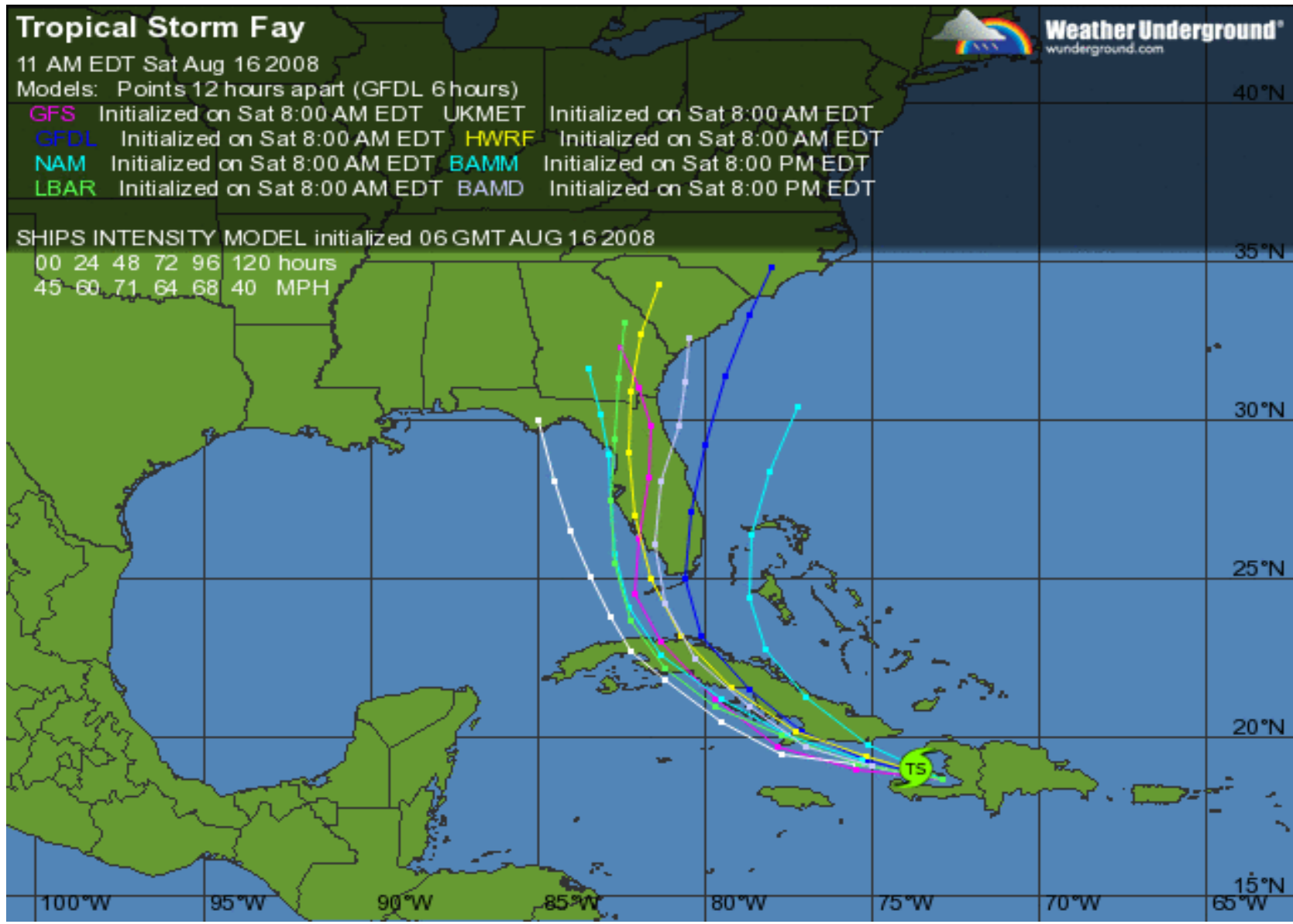
GFS	Initialized on Sat 8:00 AM EDT	UKMET	Initialized on Sat 8:00 AM EDT
GFDL	Initialized on Sat 8:00 AM EDT	HWRF	Initialized on Sat 8:00 AM EDT
NAM	Initialized on Sat 8:00 AM EDT	BAMM	Initialized on Sat 8:00 PM EDT
LBAR	Initialized on Sat 8:00 AM EDT	BAMD	Initialized on Sat 8:00 PM EDT



**Weather Underground®**  
wunderground.com

SHIPS INTENSITY MODEL initialized 06 GMT AUG 16 2008

00	24	48	72	96	120 hours
45	60	71	64	68	40 MPH





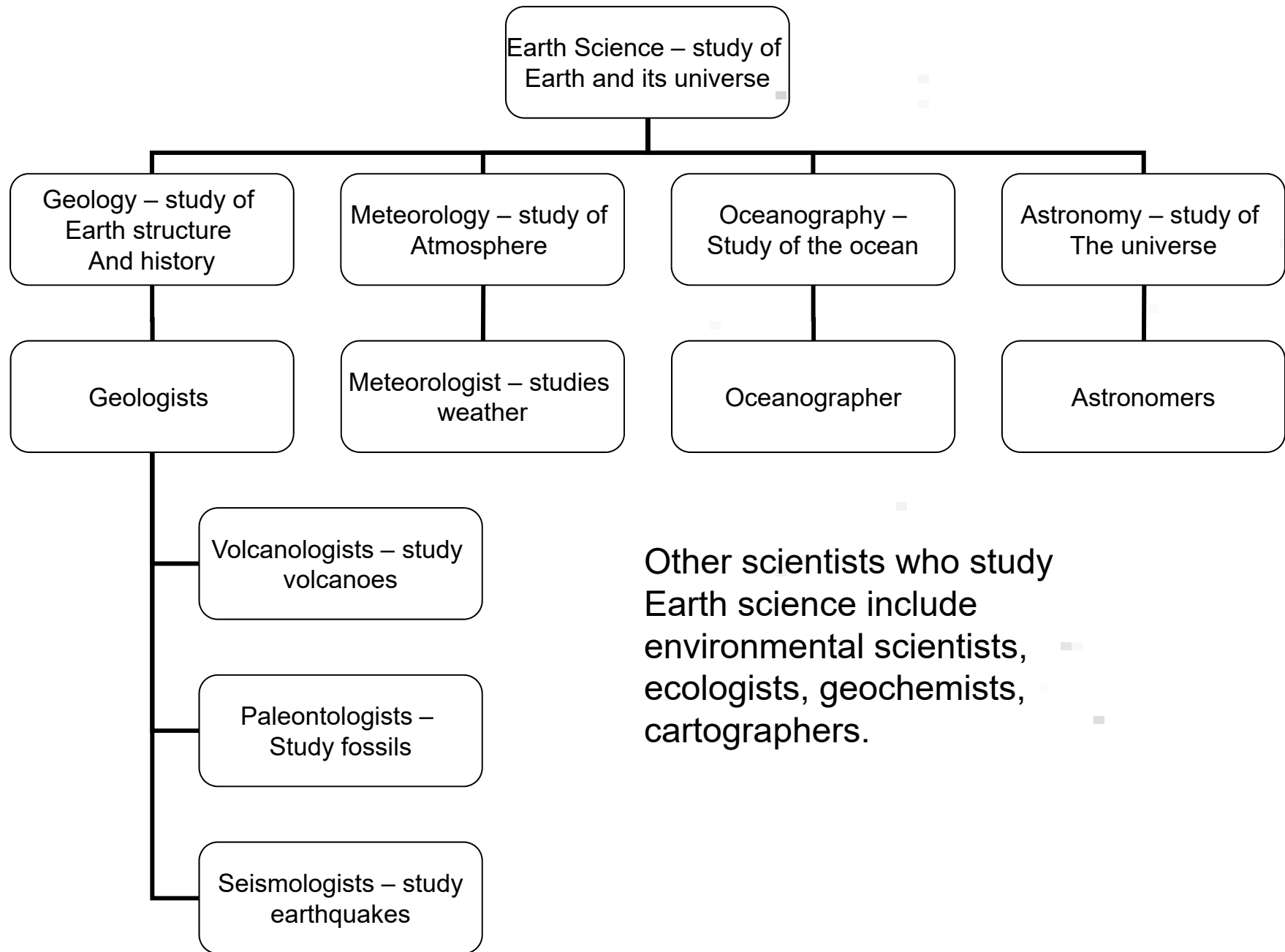
# Check your notes

With your partner:

- 1. Make sure you have complete notes.
- 2. circle vocabulary words
- 3. Highlight main ideas.
- 4. Put a question mark by area(s) of confusion.
- Make up questions for the notes.
- You have 2 minutes.

Who are the scientists studying Earth  
Science?

[https://www.youtube.com/watch?v=n  
aMxvhPdi5g&list=PLMOn2PkUiFfFFnVs  
vI\\_3xz9DZV-7lFTua&index=2](https://www.youtube.com/watch?v=n<br/>aMxvhPdi5g&list=PLMOn2PkUiFfFFnVs<br/>vI_3xz9DZV-7lFTua&index=2)



Other scientists who study Earth science include environmental scientists, ecologists, geochemists, cartographers.