

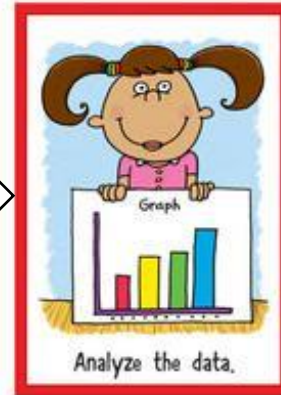
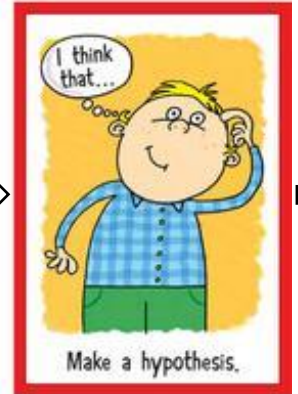
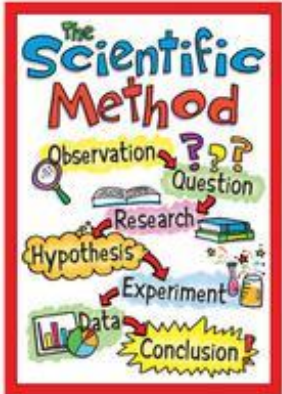
INITIAL OBSERVATION



WONDER

RESEARCH

HYPOTHESIZE



PLAN

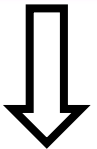
EXPERIMENT

DATA

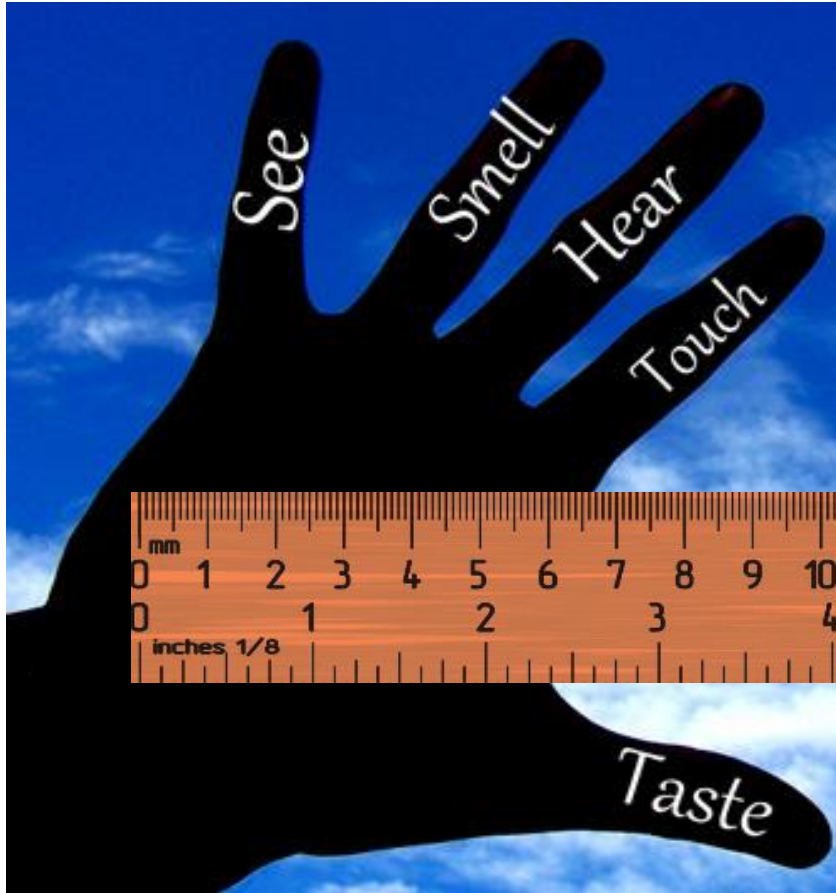
ANALYSIS

ADDITIONAL
OBSERVATIONS

CONCLUSION!



Evidence is based on Observation



- Observation is describing an object or event using your five senses (*what you see, hear, smell, taste, touch*) or measurement (*numbers*).
- Modern science employs *sensors* and *detectors* to make observations.
- Information gathered during an observation is called **data** (singular form *datum*).

TONGUE



TOUCH

TASTE

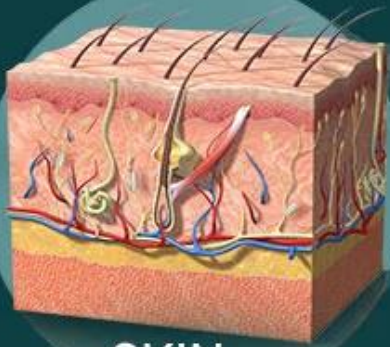
SMELL

SOUND

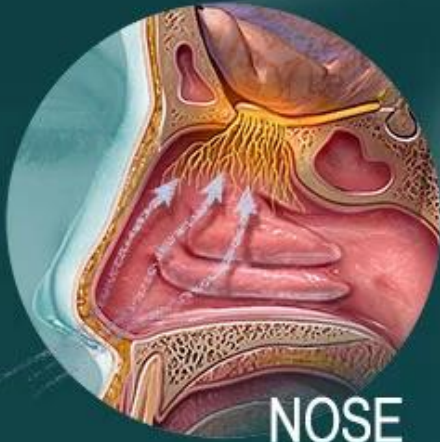
SIGHT



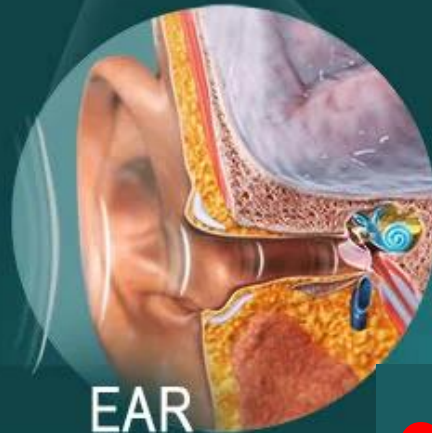
SKIN



NOSE



EAR



EYE

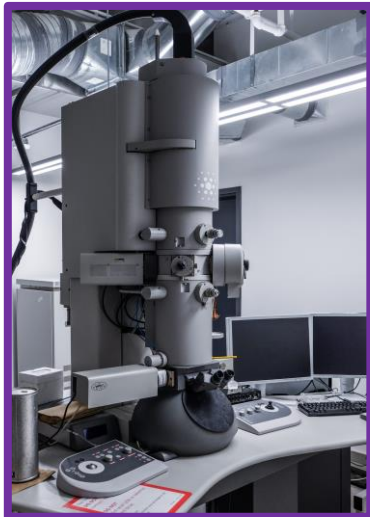
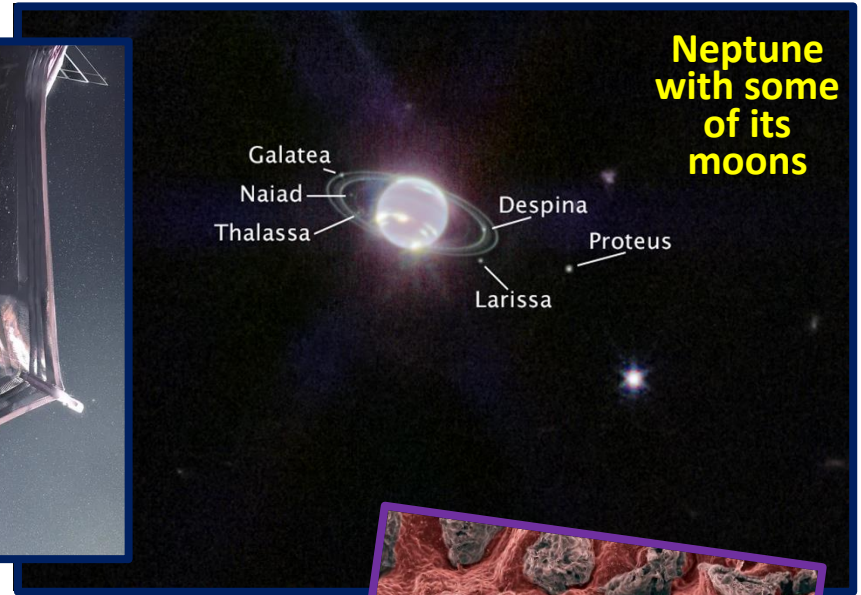
THE SENSES

collecting evidence

Instrument collecting evidence

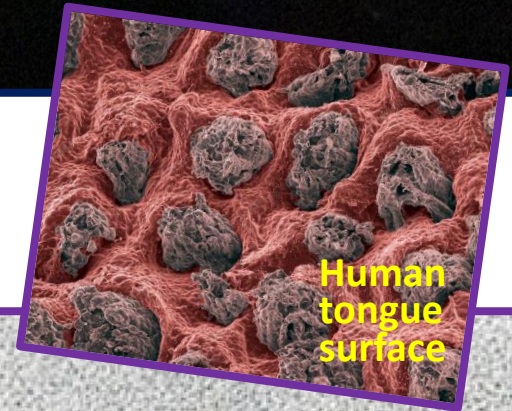
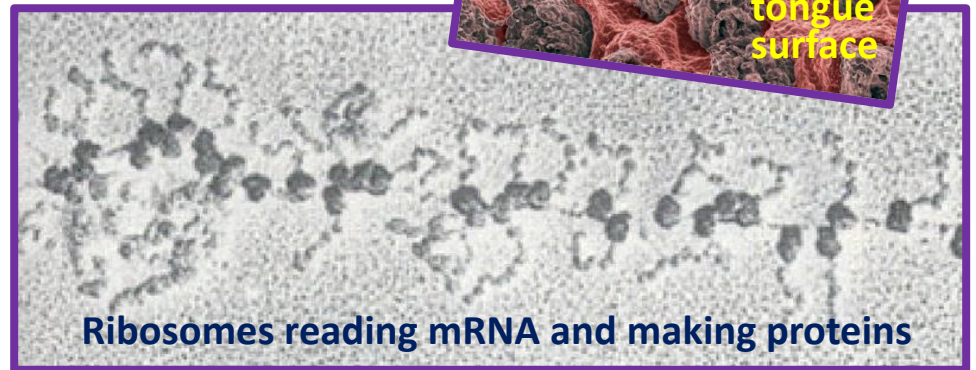
James Webb Telescope

helps observe VERY FAR AWAY objects



Electron Microscope

helps observe VERY SMALL objects



Observation depends on observer

- Location and size of an observer
- Observer limitations



can only see visible light



can see ultraviolet light



DIY: Monarch Butterfly



common form

**rare Hawaiian
white form**



DIY: Clouds

