STARS WITHIN GALAXIES

Think about this…

- Bring out your picture and your family's picture. Point out what is your relationship with your family.

Think about this…

- ❑ Are you a part of a family system?
- ❑ Is your family part of a larger group or system in your area?

Class Demonstration…

- Place the following images of Earth, the solar system, stars, galaxies, and groups of galaxies in order. Label the images of systems.
- What do you think galaxies are made up of?
- How many do you think galaxies are in our universe?
- How many stars are in our galaxy?
- Go to the board and try to draw a shape of a galaxy.

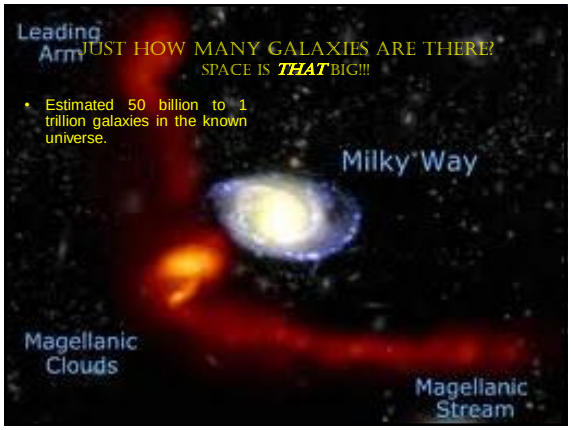
A STAR PARTY!!!

THE LARGEST GATHERINGS IN THE UNIVERSE!

- **Galaxies**- are large scale groups of stars that are bounded together by gravity.
- Size of a typical galaxy is 100,000 light years in diameter.
- Roughly 100 billion stars are contained within a galaxy.

WHAT ELSE IS IN A GALAXY?

- Galaxies also contain gases and dust.
- Shine by reflecting light from nearby stars.



JUST HOW MANY GALAXIES ARE THERE?

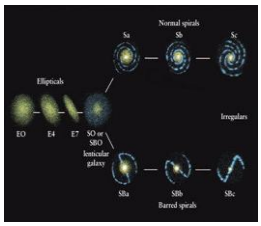
SPACE IS ***THAT*** BIG!!!

- Estimated 50 billion to 1 trillion galaxies in the known universe.

CAST OF GALAXIES…

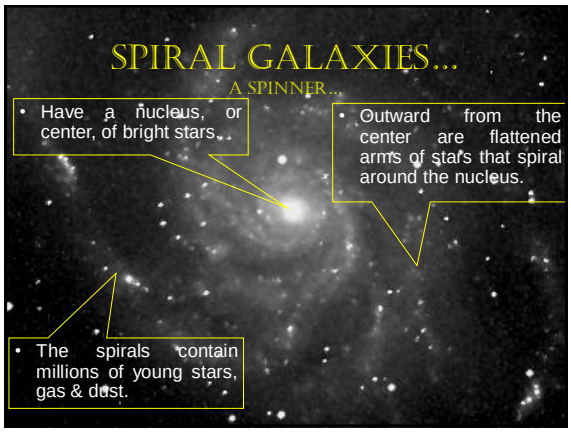
THE 3 MAIN TYPES OF GALAXIES.

- The 3 types of Galaxies are;
- *Spiral galaxies*
- *Elliptical galaxies*
- *Irregular galaxies*



Build a Galaxy…

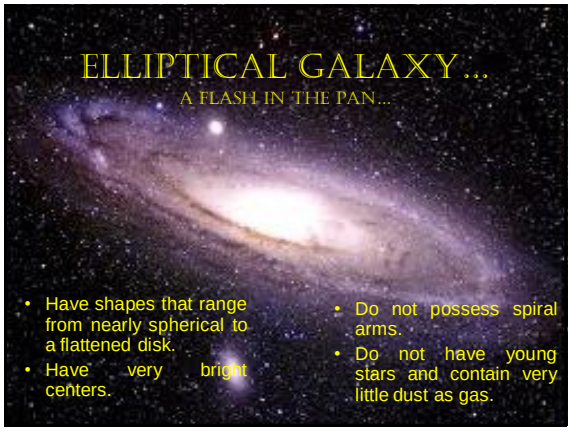
- Construct a galaxy. Use your module to identify spiral, elliptical and irregular galaxies.
- Create drawings based on an assigned galaxy below. Define the displayed galaxy during gallery walk. Students may add information about their galaxy like its parts.
- T1 & T4: Spiral galaxies
- T2 & T5: Elliptical galaxies
- T3 & T6: Irregular galaxies



SPIRAL GALAXIES…

A SPINNER…

- Have a nucleus, or center, of bright stars.
- Outward from the center are flattened arms of stars that spiral around the nucleus.
- The spirals contain millions of young stars, gas & dust.



ELLIPTICAL GALAXY…

A FLASH IN THE PAN…

- Have shapes that range from nearly spherical to a flattened disk.
- Have very bright centers.
- Do not possess spiral arms.
- Do not have young stars and contain very little dust as gas.

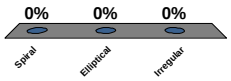
IRREGULAR GALAXIES…

A LOT OF STARS WITH EGOS…

- Have no particular shape. Tend to be smaller and fainter than other galaxies.
- Could be formed from the collision of two different galaxies.

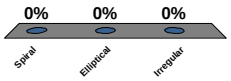
WHICH TYPE OF GALAXY HAS A BRIGHT CORE BUT DOES NOT HAVE NOT HAVE YOUNG STARS?

1. Spiral
2. Elliptical
3. Irregular



WHICH TYPE OF GALAXY HAS LITTLE OR NO SHAPE AND TEND TO BE SMALLER AND FAINTER THAN OTHER GALAXIES?

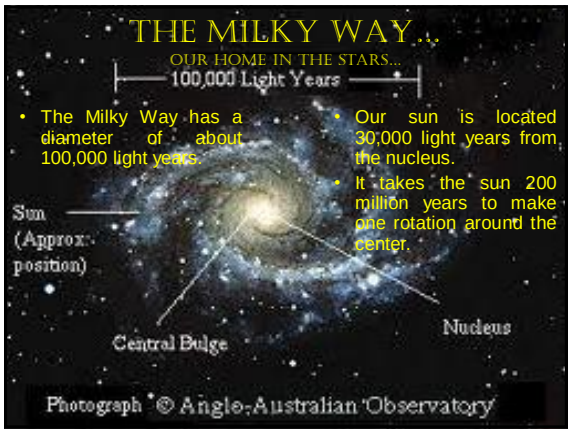
1. Spiral
2. Elliptical
3. Irregular



THE MILKY WAY…

OUR HOME IN THE STARS…

- Our galaxy is a spiral galaxy, in which the sun is one in a billion stars that are found inside.
- All the stars in the Milky Way have their own motion, some are moving towards the sun while others are moving away from our sun.

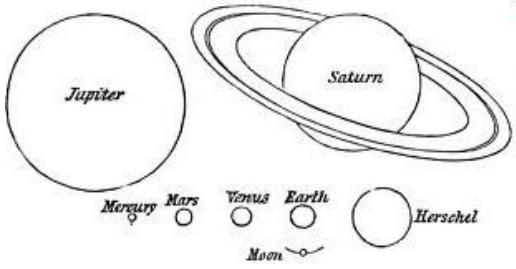


Synthesis:

- How many Earths are there?
- If you are the first Filipino astronomer and you discover a star/s, not yet known, what can you do to make a mark in the scientific community?

Homework:

- Bring the following materials for the next lab activity:
- Art materials
- Construction paper
- Cutter


Jupiter
Saturn
Mercury
Mars
Venus
Earth
Herschel
Moon