

Group Members \_\_\_\_\_

Constellation Name \_\_\_\_\_

Speed of Light = 186,282 miles per second or 299,792 kilometers per second

One Light Year (LY) = The distance light travels in one year. It is a REALLY, REALLY FAR DISTANCE. Ex: If a star is 50 LY (Light Years) from Earth, it takes the light from that star 50 years to reach us!

Scaled Distance for your constellation:

**2.5 cm = 100 LY**      Ex:  $85 \text{ LY} \div 100 = 0.85 \times 2.5 \text{ cm} = \mathbf{2.1 \text{ cm}}$  is the scaled distance

List here each of the stars in your constellation, their distance away from us in LY, and their scaled distances

STAR NAME	DISTANCE IN LY	SCALED DISTANCE

1. Fill in the chart above before you begin
2. Tape constellation picture on one side of your cardboard
3. Using a pencil punch a hole through each place in the cardboard where there is a star in your constellation.
4. Tie one bead onto the end of each string - one string, one bead for each of your stars
5. Pull the string through the hole punched to the scaled distance of your star - measured with a ruler or meter stick
6. Cut off excess string on the back side and tape down
7. Clearly label your constellation on the side that the beads hang from

Questions to be answered **on a separate piece of paper** after completing your constellation:

1. Describe how stars look when you look up at the night sky.
2. After doing this activity, what did you learn about the distances of stars in a constellation?
3. What star is closest to us in your constellation and how long does the light from that star take to reach us?
4. What star is the farthest away from us in your constellation and how long does the light from that star take to reach us?
5. Describe and draw how your constellation might look if you were able to see your constellation in space from the side. In your drawing use arrows from the star that point toward the Earth.