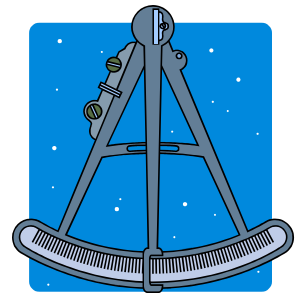


Astrolabe Activity

LP _____ Date _____



Objectives:

- To learn how to use an astrolabe
- To define the term altitude
- To understand the relationship between angle and altitude
- To understand the relationship between the altitude of Polaris and latitude

Materials:

1. Class set of astrolabes made by teacher
2. Or, each student can [make and keep their astrolabe](#) prior to this activity.

Procedure:

1. Using your Astrolabe, find the angle in degrees (altitude) of the following objects in our classroom. Then, chose 4 objects of your choice.
2. When making your measurements, stand as far away from the object as you can.
3. Record your measurements in the table provided.

Object being measured	Angle in degrees (Altitude)
Middle of Clock	
Pulley of the planetarium	
Fire alarm	
Kermit's left eye	
Top of front wall	
Top of the T.V.	
Your choice _____	
Your choice _____	
Your choice _____	
Your choice _____	



Analysis and Results:

1. Define the word **altitude**: _____

2. When measuring **inside** the classroom, how does distance affect the altitude?

3. When measuring celestial bodies from Earth, does where you stand affect the altitude? Compare standing in your backyard, standing in another state, and another country.

4. The latitude of Englewood, NJ is 40°N and the altitude of Polaris is 40 degrees. What is the **altitude** of **Polaris** at these cities?

City	Latitude	Altitude of Polaris
London, England	51°N	
Panama City, Panama	9°N	
Hammerfest, Norway	70°N	
Cairo, Egypt	30°N	
San Juan, Puerto Rico	18°N	
North Pole	90°N	
Sydney, Australia	33°S	

Conclusion: 2-3 complete sentences on what you learned by doing this activity.

