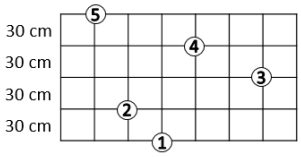
Name: _____ Date: _____ Period : _____

Lab – Modelling Parallax

5.1 ES Lab – 18 points

Directions

1. Use masking tape to tape one end of each piece of the 1 m lengths of thread to the edge of a paper plate. Each plate should have the same diameter. Number the plates 1 to 5.
2. Stand on a ladder, and tape the free end of each piece of thread to the ceiling at various heights. Place the threads 30 cm apart in a staggered pattern. Hang the plates in a location that allows the widest field of view and movement.



3. Stand about 1 meter away from *plate 1* and then step to the left of it. Close one eye, and sketch the position of *plate 1* in relation to the other plates.
4. Move to the right of *plate 1*, close one eye, and sketch the position of *plate 1* in relation to the other plates.
5. Middle distance: Move about 5 meters back and repeat steps 3 and 4.
6. Furthest distance: Move 10 meters back (or as far as you can) and repeat steps 3 and 4.

Close View Left | Close View Right

Medium View Left | Medium View Right

Furthest View Left | Furthest View Right

Materials

Metric ruler
Scissors
Five 1-m lengths of thread
Tape
Paper plates, 1 red and 4 blue
Ladder

NAME: _____ DATE: _____ PERIOD : _____

DATA

6 pts

Close Distance – Left side	Close Distance – Right Side
Middle Distance – Left Side	Middle Distance – Right Side
Furthest Away – Left Side	Furthest Away – Right Side

ANALYSIS

1. Compare your sketches. Did *plate 1* change position as you viewed it from different locations? **Explain the trend you observed as you moved further away.** (2 pts)

2. What results would you expect if you continued to move backward? Explain your answer. (2 pts)

3. Explaining real life use of the parallax.
    a. Explain Earth's path during a one-year cycle. (2 pts)

    b. Illustrate Earth's one-year cycle and label its locations at the start, 3-months, 6 months, 9-months, and 12-months. (2 pts)

    c. If you noted the positions of several stars by using a powerful telescope, what would you expect to observe about their positions if you saw the same stars six months later in terms of which were closer and which were further away? (4 pts)