“B” Work

**LOWELL OBSERVATORY MOON CLOCK**

The moon clock allows you to know where the moon is in the sky at any given time of day or night once given its phase.

**MATERIALS:**

* Scissors
* Brads (Teacher can supply)

**PROCEDURE:**

1. Cut out both parts of your moon clock.
2. Place your direction finder (portion with E, S, and W) on top of your moon phase cutout. Place a brad through the  for both parts at once.
3. Hold your moon clock so that the direction finder portion has the words horizon right side up, or make sure the house and tree are upright. This portion of the moon clock represents the ground at your feet.
4. Review the phase of the moon for the day of the activity. Place that phase of the moon directly above the south (S) arrow on your direction finder. Read the time above the arrow. The time shown is when that phase of the moon will be highest in the sky. Note the position of the sun. Is it day or night? If the sun is below the horizon line it is night.
5. Place the phase of the moon so it is above the letter E. E represents the eastern horizon. Now read the time above the South (S) arrow. This is the time that particular phase of the moon will rise. Repeat this step for the W (West). This represents when the moon will set.
6. Answer the questions located on the back of this paper using complete sentences.

Date of activity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Moon Phase: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Did the Moonrise occur before or after Sunrise today?
2. How long was the Moon up today?
3. Was the Moon mostly visible during the daylight hours or nighttime hours today?
4. **Observe the Moon tonight every half hour starting at dusk.**  How would you describe the Moon’s pattern of movement in the sky?

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| **Time** | **Moon’s Pattern of Movement** |
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Did the Moon stay in the same place in the sky all night long?

1. Was the Moon in the same place at dusk two weeks ago? Last week? Last night? Explain your thinking.
2. Based on what you observed tonight, predict what will happen tomorrow? When and where do you think the Moon will rise?
3. What will the Moon’s shape be? Draw an illustration.
4. **Next day at dusk.** Were your predictions about last night’s Moonrise correct?

9. How does the location of Moon and Sun relative to each other affect the

Moon’s shape?