

Name:

Period:

PRE-LAB 2: OBSERVING, INFERRING, PREDICTING

BACKGROUND

We have been learning about the scientific process, including how to make qualitative & quantitative observations, inferences, and predictions. This can be a difficult distinction for many people to make, especially recognizing the differences between observation and inferring.

PROBLEM

How can we use observation, inference, and prediction as part of the scientific process in lab?


MATERIALS

Paper
Pencil
Metric Ruler

PROCEDURE

WARNING: Some lab stations are hot, messy, or both.

Please use caution – ask permission before touching the equipment.

1. Proceed to your assigned lab station.
2. Individually, make as many observations about the object as possible.
 *Remember : observations are strictly based on what you can see, feel, hear, taste, touch or measure.*
3. Together, make as many inferences about the lab station as possible. Use your observations, logic, and common sense to make statements about what is happening. An inference should be based on your observations.
4. When asked, rotate to the next lab station.
5. When you have visited all four lab stations, return to your desk. Choose one station and make a prediction about it. Remember to tie together your inferences and your life experiences to make statements about what *will or might* happen. Your predictions must be in the form of "If . . . then . . ." statements.

SUMMARY

Summary & Challenge Questions must be typed or neatly written on a separate piece of paper. Sloppy work will be returned with the expectation that it is redone for full credit.

1. How is a prediction different than an inference?
2. **Why** is "The candle is burning" an inference rather than an observation?
3. How can an inference be inaccurate about a situation when all the observations are correct?

CHALLENGE (challenge questions are **not** optional)

1. Examine various situations around school, the house, or in the community. Fill out the table with your observations, inferences, and predictions.

Table of Observations, Inferences, & Predictions

Observation	Inference	Prediction
Example: The house smelled like lasagna when I walked in. I heard my mom in the kitchen.	My mom is making lasagna for dinner	If we're having lasagna, then we're also having garlic bread.