

Name:

Period:

PRE-LAB 1: SCIENTIFIC QUESTIONS

BACKGROUND

Many of us think of scientists as people who work in labs and know a lot of facts. While this may be true for some scientists, *most* scientists are regular people like you and me. Yes, YOU are a scientist. If you have ever worked through a problem or figured out a solution to *any* situation that you didn't understand at first, you have gone through the scientific process, even if you didn't know it at the time. Whenever you ask yourself, "I wonder how that works?" you have begun looking at the world from a scientist's perspective.

PROBLEM

What kind of questions do scientists need to ask?

MATERIALS

- ◆ Shoes
- ◆ Pencil
- ◆ Paper
- ◆ Ruler

PROCEDURE

1. Mr. Koerger will create a classification system for a set of objects.
2. You will be divided into small groups. Within those groups, each of you will take off one shoe and lay it on the lab station and give your other shoe to the other group.
3. Your task is to think about each set of shoes and, like you were shown in step one, come up with a classification system for them. You must ask questions that allow your team to eventually end up with each shoe in its own category.

SUMMARY

Summary & Challenge Questions must be typed or neatly written.

Sloppy work will be returned with the expectation that it is redone for full credit.

1. Create a classification system for a set of objects at home. The set must contain at least 10 items. For instance, if you chose to create a classification system for coffee mugs, you must use at least 10 mugs.
2. Why is it important to think about your questions carefully when creating a classification system?
3. When we ask a question in science class we often guess as to what the answer will be. This is called your hypothesis. Why do you think it is important for scientists (like you) to think about the answer to the question as well as the question itself?

Create your classification system here

DATA