

BAS Student Pre-Project Survey

Please select your level of agreement for each of the following statements:

1 = strongly disagree **2** = disagree **3** = neutral/not sure **4** = agree **5** = strongly agree

I am interested in science/ I like science.	1	2	3	4	5
I am good at science.	1	2	3	4	5
I know how to design and run a scientific experiment.	1	2	3	4	5
Science is important in my daily life.	1	2	3	4	5
I understand the purpose and importance of the scientific method.	1	2	3	4	5
I look forward to working with a Cal Scientist mentor.	1	2	3	4	5
I can envision myself eventually becoming a scientist or engineer.	1	2	3	4	5
I think science/engineering will be important in whatever job I have as an adult.	1	2	3	4	5
I have an understanding about what it is like to do research/work in a science career.	1	2	3	4	5

How many scientists (including engineers) do you know personally?

None One 2-5 More than 5

Short Answer:

1. What characteristics make a question a good scientific question?
2. What are the main steps/parts of a scientific investigation ("scientific method")?

For questions 3–7, pretend you are conducting an experiment that examines how different types of materials affect how quickly an ice cube melts. Your experimental design is to wrap 3 ice cubes in cotton, 3 ice cubes in foil, 3 ice cubes in wool, and leave 3 ice cubes unwrapped. Then you will use a stopwatch to measure how long it takes for each ice cube to melt fully.

3. What is the "scientific question" this experiment is designed to explore?

4. What is a possible hypothesis (or expected outcome) you might make before conducting the experiment?
5. In this example, 3 ice cubes are left unwrapped (this is the “control”). What is the reason for doing this?
6. In this experiment, what data are you collecting?
7. Draw a chart or table that you could use to record the data.