

Name \_\_\_\_\_ Hour \_\_\_\_\_

This assignment requires some assistance from a parent or another adult who knew you as a child. (If you are unable to work with an adult who knew you as a child, you may choose any adult with whom you feel you can have a safe conversation.)

Answer question #1, and then find an adult with whom to work through the remaining steps.

**1.** Summarize the key ideas related to the nature of science from our class discussion. Make note of any changes in your understanding of science. What have you learned from class discussions?

**2.** Find an adult to work with you. Take a few minutes to share the summary you wrote above with him or her. Ask him or her what information was new to him or her—what did he or she learn from your summary?

**3.** Share some examples with your adult conversation partner of scientific ideas that have changed over time (e.g., the sun or the earth as the center of the solar system; the discovery that combustion involves oxygen, not “phlogiston”; the discovery, in the 20<sup>th</sup> century, that the continents drift).

Then ask the adult to think about any scientific ideas that he or she thinks have changed within his or her lifetime—is there anything he or she was taught in school that is no longer regarded as true? Has anything changed, for example, in the way we view household chemicals, or human effects on the environment?

Record here what he or she shares. Remember, sometimes scientific ideas are completely replaced with new ideas, and sometimes they are simply refined as new information is gathered. Together, can you come up with an example of each type of change?

4. With your adult conversation partner, read and discuss what is meant by each of the following quotes from a famous scientist. For each quote note:

a) What does this quote imply about the nature of science and about the scientist's willingness to accept changes in scientific understanding?

b) What virtue or virtues does the quote suggest are needed for scientific pursuits? (i.e., What kind of person does it suggest makes a good scientist?)

- "For I am not so enamored of my own opinions that I disregard what others may think of them." – Copernicus

- "If I have seen further than others, it is because I have stood on the shoulders of giants." – Sir Isaac Newton

5. Together with your adult conversation partner, think of ideas about the natural world or about faith and theology that you or your conversation partner once thought correct, but no longer believe. Choose one example for each of you and record it here.

Have your adult conversation partner complete the section below:

I discussed these questions with \_\_\_\_\_ (name of student), and I think his/her notes are a fair reflection of my contributions to the conversation.

Signed: \_\_\_\_\_ Relationship to student: \_\_\_\_\_