

Trouble with Apples and Other Fresh Foods

Think about it...

1. Imagine you have only three apples to last you a whole week, but you want to have some apple for a snack each day. What could you do to the apples so you could have some apple every day?

2. From your experience eating apples can you suggest any problems that might happen if you were to cut an apple in half and save half to eat as a snack the next day? From your experience with apples can you suggest any ways to control these problems?

3. What factors might cause the problems you describe above? (You might need to consider what substance surrounds the apples. You may also find it useful to learn that grating an apple into very small shreds gives a very impressive change in the appearance of an apple.)

4. What procedure(s) could you use to test your ideas about what causes changes in cut apples? What materials do you want to use in your tests? To help you organize your thoughts you might want to record your discussions with your classmates by writing comments in the following three columns.

What do we want to find out about a cut apple?	What should we do in our test? How will our procedure test the differences between different apples? What will our test procedure tell us about the differences between apples?	What materials will we need? What will we do to the materials, apples to control other variables? How will we measure the difference between different apples?

5. Use the following pages to organize and summarize your science work.

Student name: _____

Date: _____

Science Research Summary

The investigating scientists are:

Our Question(s) — What we want to find out?

Our Test(s) — How we plan to find out?

We plan the following test:

Our Materials

Our Observations and Data (Results)

We plan to collect the following data:

We organize this data in the following data table to allow us to make a claim:

Student name: _____

Date: _____

Our Claim

From our test (experiment) and data (results) we claim:

Our Evidence

Our claim is supported by the following evidence:

Our Reasoning

Our claim and evidence are linked or supported by the following science reasoning:

Our Readings and Discussions — How do our results fit with what others know or have found out?

Our claim, evidence or reasoning fits because we heard:

Our claim, evidence or reasoning fits because we read:

Our Reflection

After working on this question or test we now know and wonder about:

Student name: _____

Date: _____

The Science Behind Your Investigation

You have just observed the reaction of oxygen with the chemicals in apples cells. In our cells, oxygen is necessary but it can also cause reactions that can be harmful to cells. Some chemicals in foods react with oxygen and are called antioxidants. Scientists are continuing to investigate how some antioxidant chemicals in foods provide protection to cells in our bodies, which helps to keep us healthy. What foods do you know contain antioxidants?