

An Apple a Day

Synopsis

Students are presented with an apple and are asked to draw it. In each subsequent class period they are asked to draw the same apple again. In this way, they watch and record the changes the apple goes through as it decays. This exercise can serve as an introduction or complement to the exercise **Dirty Decomposers**.

Objectives

This exercise has two objectives. First, students will learn to make careful observations and gain valuable practice in drawing what they observe. Second, it is meant to stimulate questions about the changes occurring in the apple. Ideally, students will have an opportunity to ask questions that can be answered through experimentation.

Procedures

There are several ways to do this exercise. The most straight-forward way is to simply present an apple to the class and ask students to draw it. It is up to you to decide whether to allow students to handle the apple or not. Handling it is not a problem in the early stages of the exercise, but once decay sets in it could pose problems. Then handling could disrupt the natural decay processes, and might also expose students to potentially dangerous microorganisms through hand contact. If students do handle the apple, be sure they wash their hands thoroughly right after doing so.

Once students have drawn the apple on the first day, you will need to choose a spot in the classroom where the apple will remain until you decide to terminate the exercise. Some care might need to be taken in choosing this spot, as the choice may determine how quickly changes occur within the apple. For example, a spot on a sunny window sill will cause the apple's decay to be affected by heat and sunlight, in contrast to a cool spot in a dark corner.

Alternatively, you might start the exercise with two apples. These could be similar apples kept in two different locations within the classroom, or they could be different types, for example one red and one green. Or they could be different sizes. If you decide to use two apples, you can have each student draw both apples if you think they have the patience and stamina for both. If not, you can assign half the class to recording the changes in one apple, while the other half of the class does the same for the second apple.

Students should continue using their drawings as a way to record changes in the apple on a daily basis. Be sure to remind them to date each drawing, and all of their drawings should be kept together in chronological order.

This exercise should be continued *ad nauseum*, either literally or figuratively, as the class permits. Along the way, several things may happen:

- Students may become more skilled at drawing apples.
- Students may become more skilled at observing the fine points of the appearance of the apple.
- Students may observe the changes in the apple that occur as it begins to soften, spot with mold, and decay, or slowly wrinkle and dry up, depending on ambient conditions.

- Discussion may be stimulated concerning the small and large changes that are occurring.
- As students talk, they may become more intensely aware of the importance of careful, thoughtful observation.
- Research into the whys and wherefores of decay, fungal growth, or desiccation may be stimulated.
- Questions may be raised concerning the role decay plays in the future of the apple seed--its dispersal and eventual germination.

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