MYTH
Does chewing gum take seven years to digest?

OBJECTIVES
1. Investigate the digestive process of humans.
2. Determine whether chewing gum is digestible.

WHAT YOU NEED
- One piece of chewing gum
- 0.05M Hydrochloric Acid (Also known as Muriatic Acid, for a concentration of 10% HCl dilute to a 1:60 solution)
- 2 x specimen jars
- Mass balance

WHAT TO DO
1. Place a piece of gum in your mouth and chew for 2 minutes to allow 1st stage of digestion to occur.
2. Measure the mass of the piece of chewing gum on the mass balance and record.
3. Repeat with a second piece of gum.
4. Place the first piece of gum into a specimen jar and cover with hydrochloric acid.
5. Place the second piece into a specimen jar and cover with water.
6. Shake the specimen jars for between 20 minutes and 2 hours. Make sure that both pieces are shaken for the same amount of time.
7. Leave the jars for a week, refreshing the hydrochloric acid and shaking each day.
8. Record the mass of each piece of gum using the mass balance.

QUESTIONS
1. When does digestion first start occurring?
2. What digestive enzymes are contained in our saliva?
3. In what parts of the method are errors likely to occur? Discuss how these might affect your results.
4. What other variables might you test to further investigate this myth?

RESOURCES USED TO DEVELOP THIS ACTIVITY