# Investigation 3: Digesting proteins

Aim: To investigate the effect of the enzyme pepsin on protein.

## Materials:

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| Per group   * 1 test tube * 1 rubber stopper to fit test tube * 1 test tube rack * 2 x 10 mL measuring cylinders or graduated Pasteur pipettes * 1 dropper bottle of 2M hydrochloric acid * 1 stopwatch | Per class   * 1% pepsin solution + 100 mL beaker (to pour pepsin into measuring cylinder) * 1 L of egg white suspension + 100 mL beaker (to pour egg white into measuring cylinder) |

## Method:

1. Place 2 mL of an egg white suspension into a test tube.
2. Add 1 mL of pepsin and 3 drops of hydrochloric acid.
3. Add a stopper to the test tube and shake to mix the solutions.
4. Hold the test tube in your hand for 10 minutes.
5. Record your results.
6. Clean up all the equipment as directed by your teacher.

## Results:

Describe any change you observed in the test tube.

## Discussion:

1. How do your results indicate the action of the enzyme pepsin on proteins?
2. Why do you think acid was added to the test tube?

**Find out more**

*Use available resources to answer the following questions.*

1. What substance(s) are proteins broken down into in the digestive system?
2. What is the role of acid in the stomach?