

# The Gum and Chocolate Experiment

Sometimes foods that we love to eat provide an opportunity for a fun and educational chemistry experiment! Enjoy the surprising results from this quick and easy Gum and Chocolate experiment.

## How to Do the Experiment



Look at a piece of gum. What does it look like? How does it feel? Chew the gum and observe how it changes as it is chewed.



Add a small piece of chocolate to the gum, chewing them together until they are well mixed.



Make observations about what happens to the gum and the chocolate when they are mixed together.

## What's Going On?

Both the gum and the chocolate are made up of oil-based polymers, or long strings of molecules. Scientists have observed that substances that have like properties can dissolve each other. In this case, the cocoa butter in the chocolate softens the gum and breaks apart the polymers, causing the gum to dissolve. (Your saliva doesn't dissolve the gum because saliva is water-based.)

### Ask yourself:

- How did the gum change when you chewed it?
- What happened when you added the chocolate to the gum in your mouth?
- What would happen if you used other types of gum or other types of chocolate?
- What other foods can you mix together in your mouth? Do you think they will have similar results to the gum and chocolate?

