

# MSU Science Zone

No.  
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## What is a geyser?

A geyser is a hot spring that sometimes shoots water and steam into the air. Geysers form when there are lots of water, heat and narrow channels in the ground that create a kind of “plumbing” system. Water collects in cracks and tunnels in the ground and when it gets hot and the pressure builds, it shoots out of the ground. Yellowstone has more than 300 geysers, about half of the world’s total. Yellowstone is actually a large volcano with lots of magma beneath it. The magma is liquid rock under the Earth’s surface that heats the ground water. Scientists at Montana State University are studying many aspects of the hot springs in Yellowstone, including what kind of things live in them.

### Did-you-know?

The tallest active geyser in the world is Steamboat Geyser found in Yellowstone National Park. Its eruptions can reach 300 feet tall, as high as the Statue of Liberty!

### TRY THIS

#### Make your own 8 foot geyser!

Things You’ll Need:

- A roll of Mentos mint candies, unopened
- A 2-liter bottle of Diet Coke
- A piece of paper
- Tape
- An adult to help you with this

Choose an outdoor location far away from any cars or houses. Carefully open a 2-liter size bottle of soda pop. Warm diet soda works best. Do not shake the bottle before opening. Roll up the piece of paper and tape it together to make a tube that fits over the neck of the soda bottle. Do not tape the paper to the bottle. Open the roll of Mentos mint candy and quickly, but carefully, with the paper tube in place, drop the whole roll of candies into the soda bottle. Move away immediately! Do not stand over the soda bottle when you drop in the candy. You will get a face full of soda.

The reason the soda erupts is that the surface of the candy is covered with lots of little pits that are places where carbon dioxide bubbles can form and then quickly escape. This is called nucleation.



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