



## Science at Home



### Materials Needed:

- Small canning jar with 1/8-inch hole punched through the lid (don't use metal ring)
- 3/4 of jar filled with hydrogen peroxide
- ¼ teaspoon yeast
- Large uncooked piece of flat ended pasta (ziti works well)
- Lighter

### Pasta Rocket (Make a Hybrid Rocket Engine)

Explore hybrid rocket engines by mixing hydrogen peroxide and yeast to fuel a rocket!

1. Prepare jar with small hole in the lid
2. Combine hydrogen peroxide and yeast, there should be a noticeable amount of bubbling
3. Place lid and situate pasta over the cut-out hole
4. Have an adult help you use a lighter to ignite the area directly above the piece of pasta.

### Science Behind the Science You See

Hybrid rocket engines require a solid fuel source and an oxidizer. The pasta acts as that source while the reaction between the yeast and hydrogen peroxide releases pure oxygen, the oxidizer for the engine. By cutting a small hole in the lid of the jar, oxygen is funneled through it so that when the air above is lit it will create an ongoing flame.

Brought to you by Whitman College Science Outreach Team. Please visit our website for more fun activities to do at home.

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