

## ENGINEERING DESIGN PROCESS Underwater Fireworks



1. Title of Experiment
2. Hypothesis (How can I use water, oil, and food coloring to make underwater fireworks?)
3. Draw a Picture of your Design (Sketch a design of your experimental setup.)



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4. Data Collection/Observations (Draw what your cup looks like with the oil and food coloring.)
5. Results (Draw or write some observations about what you see happening in the glass.)
6. Analysis/Answer Questions
What did you notice about the oil when you added it to the water? Did it sink to the bottom or float on the top?
What did you notice happened to the food coloring droplets when you added it to the water? Did they sink to the bottom or float on the top?
This is all about density - things that are more dense than water sink and things that are less dense than water float. Which ingredient was more dense than water? Which ingredient was less dense than water?