

Situation

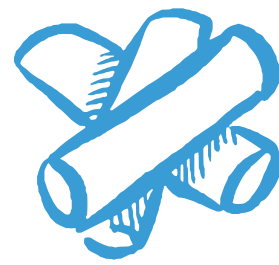
Experiment with artsy chemical reactions!

Problem & Career Focus

Amidst the Coronavirus pandemic, you are bored playing with your same toys, games, etc.! It's gorgeous outside, and you'd love to thank first responders in your neighborhood by creating a picture with chalk—but with a STEM twist! Your task is to research chemical reactions and experiment with different solids and liquids to create a chalk masterpiece! Your team of chemists, graphic designers, and game designers to design a STEM masterpiece! What role do solids, liquids, and gases play in changing states of matter? What are ways solids and liquids turn into gases?

Things to Consider

1. What are the states of matter?
2. What are chemical reactions?



STEM Ahoy! Exploding Chalk Engineering Design Challenge

Criteria:

Create a new way to make chalk designs!

Materials:

Suggested Items:
* Zip-Seal bags
* Corn starch
* Vinegar
* Food coloring/watercolors
* Baking soda
* Toilet paper
* Adult supervision!



Constraints:

- * Use materials as directed
- * Work as a family engineering team!
- * Create your own criteria!

Investigating Questions:

How can two reactants coming to make an entirely new product?

What are chemical reactions?

What steps of the engineering design process did you use?

Educational Standards Correlations

Language Arts, Engineering, Science, Chemistry, Art, Mathematics