

Summer Snow

Summer is the perfect time for some frosty science fun. Keep your students cool while exploring solubility, changes in state, emulsions and fizzy, foamy and frothy chemical reactions.

It's snowing! It's snowing! Use this chilly activity to combine science and art in one super cool open exploration of shaving foam. A foam is a colloidal suspension of a gas in a liquid or solid. Unlike a solution where a solvent dissolves a solute to result in only one phase, a colloid has a dispersed phase (in this case the gas) and a continuous phase (in this case, the water/soap). To be called a colloid, the mixture must contain undissolved particles which do not settle.



You will need: Shaving foam, baking soda, vinegar (optional), paint brushes (optional)

What to do:

1. Mix 1 box of baking soda with enough shaving foam to create a moldable substrate.
2. Allow children to explore this summer snow with their fingers. How does it feel?
3. At this point, children can create molded snow masterpieces and spritz or paint their creation with coloured vinegar. Or they can pack their snow onto a baking sheet to create a canvas for spritzing or painting.
4. Once the "canvas" is full, the top layer can be scraped off and the fun can continue.

What's happening?

What's more fun than snow in summer? It's even cool to the touch. A chemical reaction that feels cold to the touch is called an endothermic reaction. It requires heat from the environment in order to proceed. Since we have baking soda mixed into the shaving foam, spritzing or painting with vinegar will cause an acid-base reaction to produce carbon dioxide gas.