

A wide-angle photograph of a vast field of icebergs floating in a body of water. The icebergs are various sizes and shapes, ranging from small chunks to large, jagged blocks. They have a distinct blue color, likely due to compressed snow and air bubbles. The water is a pale blue-grey. In the background, there are low, brownish hills under a sky filled with soft, white clouds. The overall scene is serene and cold.

What melts ice faster?

By Everleigh and Imogen

About our experiment

We chose to do this project because we always slip on ice and we want to solve that problem and see if salt is the **best** product to use still. A lot of the time people put different resources on the roads and sidewalks to melt the ice. So we are seeing what melts ice faster so we won't slip anymore.

For our setup we got 6 jars and put 3 ice cubes in each.

We put $\frac{1}{2}$ a teaspoon of the ingredients in each jar. We are Salt, sugar, pepper trying to test what melts ice faster with 6 different ingredients. Pepper, salt, sugar, plain ice, rocks and cinnamon

At 50 minutes the salt is in the lead but the sugar is close behind.

The cinnamon is not melting at all. It's like the cinnamon is making the ice not melt and same with the rocks and pepper.

Our hypothesis

Our hypothesis is we think that the salt is going to melt the ice fastest.

We think that because people use a special type of salt to melt ice on roads and sidewalks.



The problem with the salt is that, the salt kills the plants. But sugar helps plants grow!

Our observations

We saw that at 6 minutes the salt and sugar have melted the ice the most. The pepper and rocks have not even started melting it at all.

We are surprised of how fast the sugar is melting the ice because we thought that it would melt it not that fast but its melting it pretty fast.

We noticed that when we put the rocks on the ice they slid right off.

All About salt

Salt, (sodium chloride), is an important mineral and chemical compound essential for life, used for flavouring and preserving food, maintaining bodily functions (like nerve signals and fluid balance), and in industrial processes like road de-icing and chemical manufacturing. It's a crystalline solid, also known as halite (rock salt). It's found naturally in seawater and underground deposits.



All About pepper

Pepper is the spice from the *Piper nigrum* vine. It's used globally for flavor, though they come from different plant families, with *Piper* native to India and *Capsicum* to the Americas. "True" pepper (*Piper*) was historically so valuable it was used as currency, driving exploration, while *Capsicum* peppers offer heat via capsaicin (except bell peppers) and vast variety.



All about Sugar

Sugar is a sweet carbohydrate providing energy, found naturally (fructose in fruit, lactose in milk) or added to foods, with common forms like sucrose (table sugar from cane/beets), honey, and syrups. While the body needs simple sugars like glucose for fuel, refined sugars offer energy without nutrients, and hidden sugars appear in many forms (syrups, words ending in "-ose") on food labels, making moderation crucial.



All about cinnamon

Cinnamon is a popular spice from the inner bark of *Cinnamomum* trees, known for its warm, sweet flavour, used in sweet and savoury dishes, teas and even traditional medicines for its antioxidants and potential blood sugar benefits, with the two main types being common, spicy Cassia (North America/Asia) and delicate, sweeter Ceylon (Sri Lanka). It's available as sticks or powder, derived from the tree's coiled, dried bark, and offers flavor through its essential oil.

Types of cinnamon:

- Cassia: The most common type, including Indonesian, Chinese, and Saigon varieties, known for its strong, spicy taste, dark color, and thick bark.
- Ceylon (True Cinnamon): Lighter in color with a more subtle, complex flavor, featuring papery, multi-layered quills.

All about rocks

Rocks are naturally made of solid materials made of minerals, split into three main types—igneous, sedimentary (layers of sediment), and metamorphic (changed by heat/pressure)—that constantly transform through the Earth's rock cycle, forming the planet's crust and valuable resources.

One main Type of Rock

- Igneous:
 - Formed from cooled magma or lava (molten rock)
 - .Examples: Granite, basalt.
 - Formation: Magma cools slowly underground (intrusive) or lava cools quickly on the surface (extrusive).