

Homemade Slushies

Slushies are a great treat on a hot day, but you don't need to go to the convenience store to get one. Learners will use science to make their own slushie!



Recommended Age: 6+ years old

Time needed: 10 minutes prep time, 1-2 hours waiting time

Video: <https://youtu.be/7dZINUvtxgg>

What You Need

- Fruit juice (any type or combination)
- Ice
- Kosher salt
- A large bowl
- A container (with lid) that will fit in the bowl (if you don't have a lid, you can use plastic wrap)
- Spoon and/or spatula

What You Do

- Fill the bowl about $\frac{3}{4}$ full of ice
- Nest the container into the ice
- Fill the container about $\frac{3}{4}$ with juice
- Cover the container, then sprinkle kosher salt all over the ice
- Wait about 30 minutes
- Stir the juice, scraping the ice off the sides of the container
- Wait another 30 minutes, and repeat
- Once your juice is looking pretty thick with ice, you'll need to continue scraping and stirring until your juice has reached the consistency you like. You may want to let it sit for another 15 minutes, or not, depending on how you like it.



- Pour your slushie into a glass, pop in a smoothie straw or regular straw, and enjoy!

Tips for Adults

- Be careful not to get any salt into the juice!
- There is a lot of waiting involved here. Have an activity to do during the waiting time.

Learning and Skills Connection

- **Persistence:** Focusing, sticking to it, learning from mistakes
- **Being open to possibilities:** Expressing interest, wanting to explore, taking things apart, trying things out, asking questions
- **Making connections:** Relating to prior experience, meeting professionals, learning about your world and how STEAM appears in it

What's Going On?

The ice/salt mixture is cold, but as it melts, it causes an endothermic reaction. “Endo” means “in” and “thermic” means “heat.” So the ice is pulling heat from somewhere warmer than it is, which in this case is the juice. As the heat leaves the juice, the juice begins to freeze. If you didn’t stir it, you would just get a block of ice-juice! But stirring it breaks up the ice before it can form a block, resulting in a thick slush that you can drink!



Doing STEAM with Kids

STEAM stands for Science, Technology, Engineering, Art, and Math. There are lots of ways you can explore these letters, apart or together. Ask your child to make predictions, describe what they see, and to imagine possibilities and solutions. Don’t worry so much about the “right” answer. Developing curiosity, and problem-solving skills are important first steps to doing STEAM!

