

Ice Cube Painting

Explore colors and patterns by painting with ice!

Materials Needed:

Ice cube tray, water, food coloring, white paper, tray, paper towels.

Note: Food coloring will temporarily stain skin.



Instructions:

Step 1: Put a few drops of food coloring into each section of an ice cube tray. Fill the tray with water and place in the freezer for 24 hours.

Step 2: Place a piece of paper on a tray. Run water on the underside of the ice cube tray to release your ice paints.

Step 3: Paint and play with the ice cubes! Watch the colors melt onto the paper. Experiment with colors and patterns.

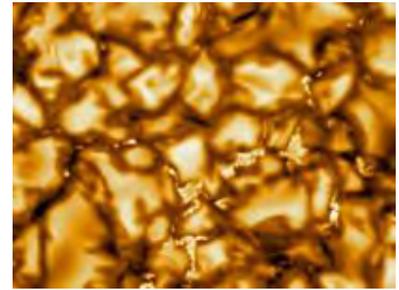
Step 4: If the paper gets too wet, set it aside and replace it with a new piece of paper. Keep painting until all the ice melts!





Ice in the Solar System

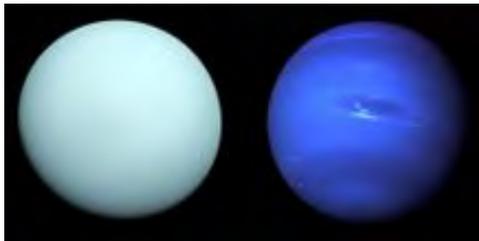
Our Sun produces a huge amount of heat. Temperatures inside the Sun can reach 15 million degrees Celsius (27 million degrees Fahrenheit)! The closest planets, Mercury and Venus, are too hot for ice to form. But as we move away from the Sun, the heat decreases, and water and gases freeze into ice.



Plasma on the surface of the Sun.
Image: National Solar Observatory.

Earth is just the right distance from the Sun for water to stay liquid, which makes life possible. Because the Earth spins at an angle, it also gets cold enough for the poles to be covered in ice year-round. Polar ice caps also exist on Mars. These are made of frozen carbon dioxide instead of water.

Planets, moons, and asteroids at the far end of the Solar System are much colder because they are so far away from the heat of the sun.



Uranus and Neptune. *Image: NASA.*

Neptune and Uranus are two ice giant planets at the edge of the Solar System. It gets so cold that the gases around the planets become very thick and form ice crystals.

On the outside edge of the Solar System, the Kuiper Belt is a huge ring of icy rocks orbiting around the Sun. The dwarf planet Pluto is the most famous object in the Kuiper Belt. These deeply frozen objects may hold clues to the origins of the Solar System.

Right: Artist's impression of a Kuiper Belt Object. Image: NASA, ESA, and G. Bacon (STScI).

