

Paint Your Own Crystal Rocks

October 05, 2024 / DIY / STEM Activities / Chemistry / Ages 9 - 12 / Crystal Rock Painting



How can we transform ordinary pebbles into sparkling gemstones? This experiment perfectly blends science and art. Through a simple chemical reaction, we'll create crystallised rocks and decorate these beautiful crystals into unique works of art. This is not just an exciting scientific experiment, but also a grand display of creativity!

- Age: 9-12
- Time: Over 24 hours
- Mess Level: Messy

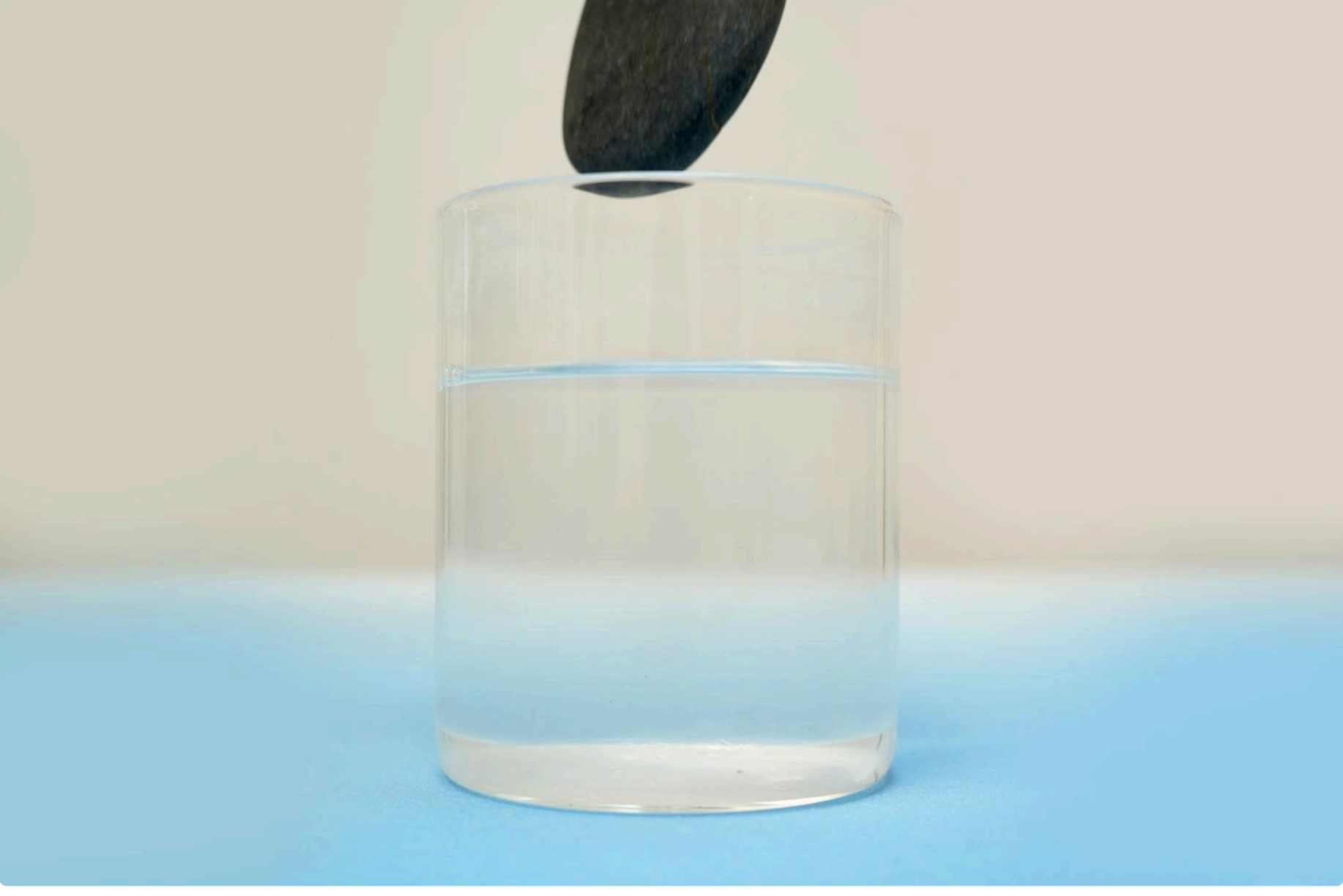
Materials Needed:

- Pebbles
- Borax (usually found in pharmacies or the cleaning supplies section of supermarkets)
- Hot water
- Food colouring or watercolour paints
- Stirring stick
- Small bowl or container
- Brush
- Paper towels or tray



Step-by-Step Instructions:

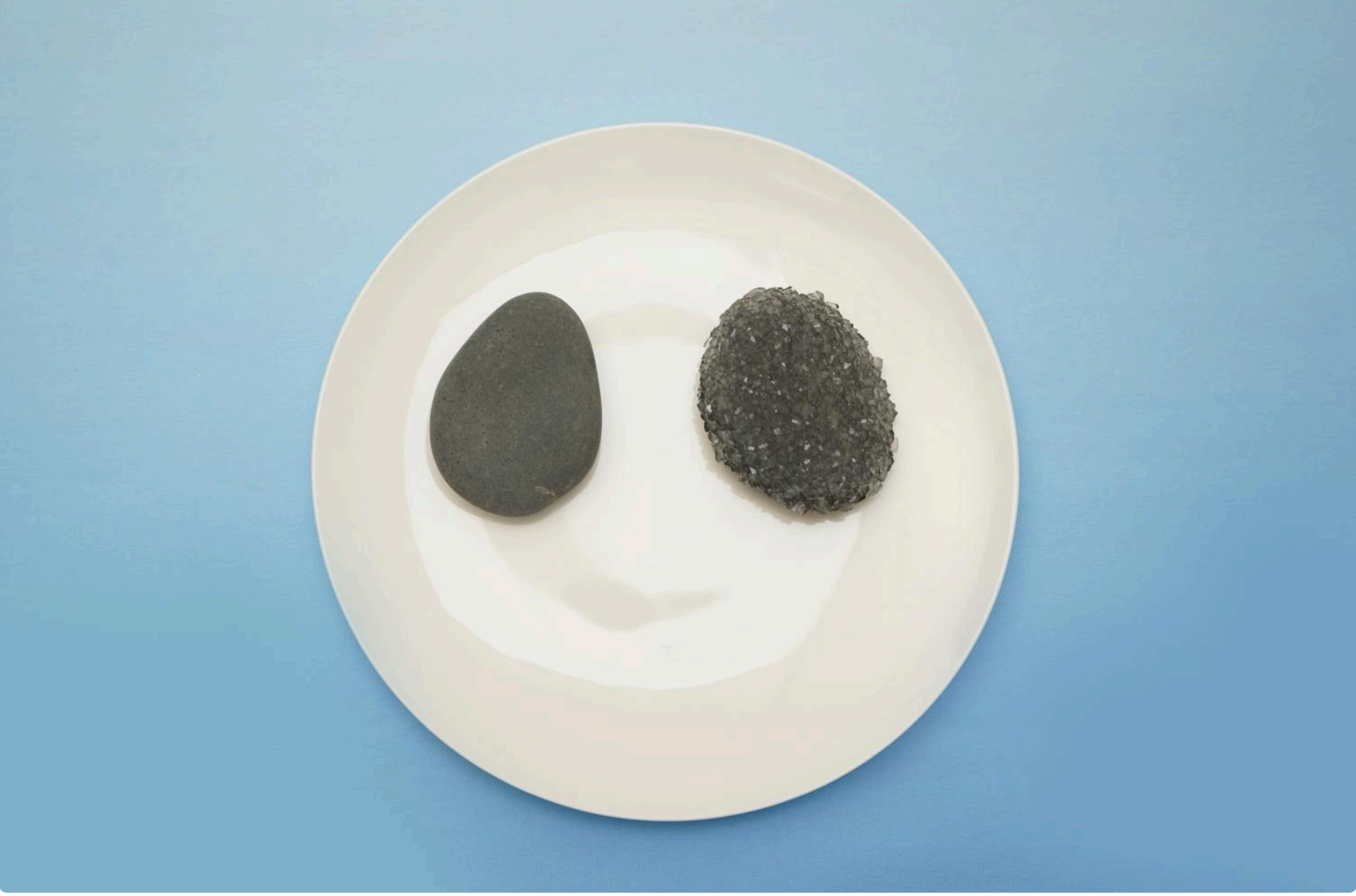
1. Prepare the borax solution: In a small bowl or container, add about 1/4 cup of hot water. Slowly add 2-3 spoonfuls of borax, stirring constantly until the borax is completely dissolved, forming a saturated solution. If there's still undissolved borax in the solution, it means the solution is saturated.



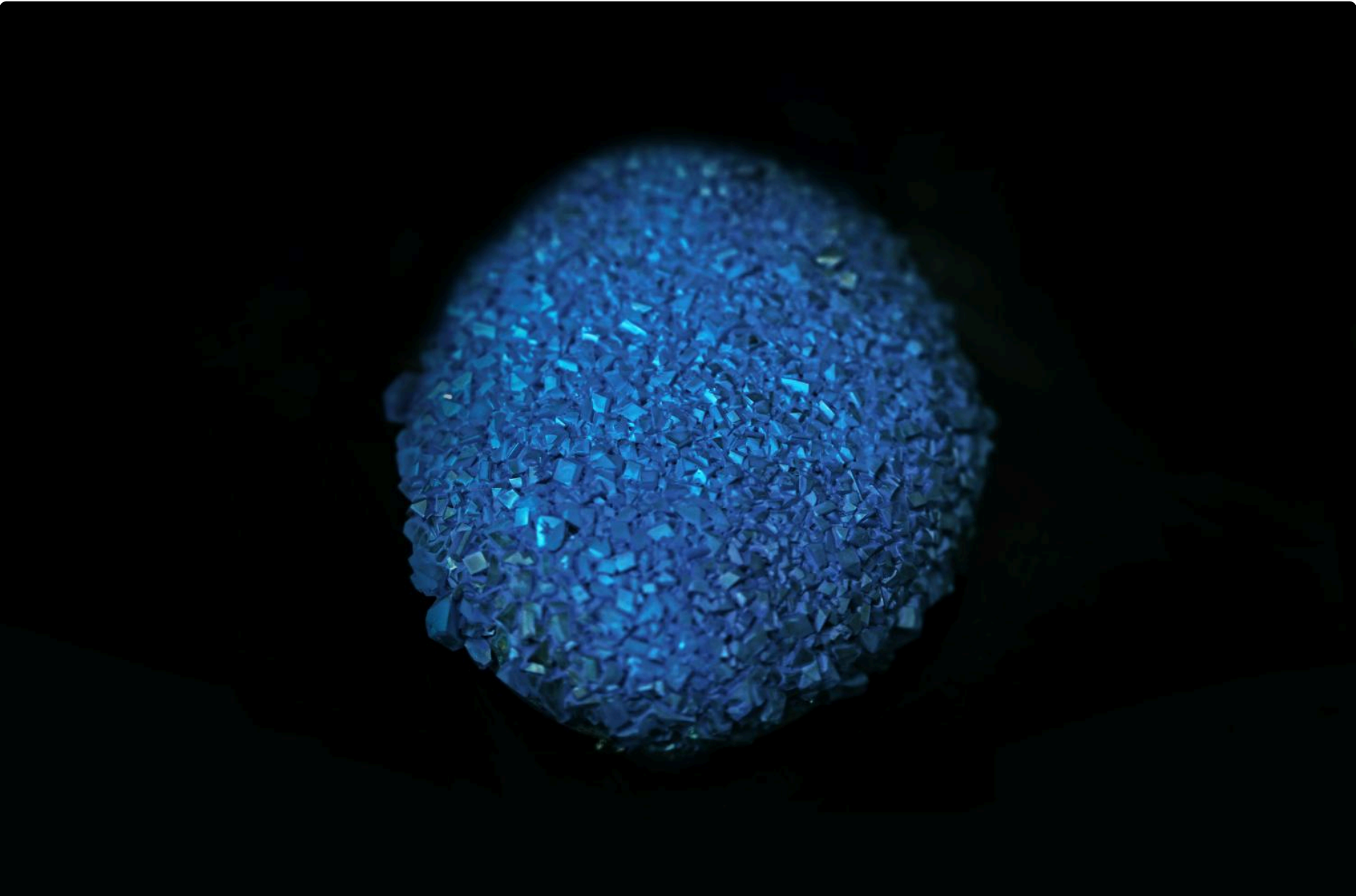
2. Thoroughly wash the pebbles with clean water to remove surface dust and dirt. Carefully place the cleaned pebbles into the container with the borax solution. Let the pebbles soak in the solution for over 24 hours. The borax will crystallise out of the solution and attach to the surface of the pebbles, forming crystals.



3. Remove the pebbles and place them on a tray or paper towel to dry until the crystals are completely dry.



4. A smooth, grey stone and a cluster of grey crystals rest on a white plate against a pale blue background.



The Science Behind It:

In this experiment, children will learn about the scientific principles of dissolution and crystallisation. Borax is a chemical substance that easily dissolves in hot water. When we dissolve borax in hot water, it forms a saturated solution. As the solution cools, the solubility of borax decreases, causing it to precipitate out of the solution and crystallise on the surface of the pebbles, forming a beautiful shimmering layer.