

STEAM Prompts:

What happens when you shine a light on the crystals? How do the facets of the crystals look? Now shine the light on the blue glowing snowflakes, how do they react to the light?

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Decide where to place your characters. You can insert Elsa on the lid in her ice palace while Anna and Olaf play inside. Have fun moving your characters and creating your own Frozen adventures.



STEAM Prompts:

How can you balance the characters and help them stand? What changes can you make with the sensory sand if they fall over?

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Once your terrarium is complete, re-charge the snowflake stickers and plastic snowflakes under a very bright light. Place your terrarium in a dark room.

STEAM Prompts:

How does your terrarium look when the lights are on? What changes happen when you turn off the lights?

Grow and Play STEAM learning concepts

S is for Science. Elsa's ice magic. Just like Elsa creates ice and snow, your crystals will grow into sparkly shapes! When the water cools, tiny pieces join together to form beautiful crystals that look like ice.

T is for Technology. Frozen Discoveries. Scientists use crystal science to make amazing things like computer chips and shiny gems. The same crystal magic you see in Elsa's world helps scientists build real technology!

E is for Engineering. Build Olaf's Winter World. The sensory "snow" helps support hold your characters and crystals in place. Like your beautiful snowy terrarium, engineers design and build things, so they stay balanced, strong, and look amazing.

A is for Art. Frozen Sparkle Art makes the world around us more beautiful. Decorate your winter world with the glow-in-the-dark snowflakes, stickers and confetti to make your crystal scene sparkle like a magical night in Arendelle.

M is for Math. Measure Like Anna. To grow crystals, you need the right amount of water. Use the measuring cup to add the correct amount—just like following a recipe. Measuring helps your crystals grow perfectly!

Elsa's Crystal Terrarium
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Conforms to ASTM-D 4236
Non-toxic Safe for children

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STEAM

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Elsa's Crystal Terrarium

Welcome, Royal Scientist!
You are about to build an icy world for Elsa, Anna, and Olaf. Follow these steps to turn a liquid solution into shimmering crystals to create a snowy, glowing terrarium for Elsa, Anna and Olaf.



Before you begin, wear old clothes or a smock and cover your work surface. The food coloring in the crystal powder and solution may stain.

Adult supervision and assistance are required. Your crystal growing set requires the use of hot tap water for dissolving the crystal powder.

Avoid contact with your eyes, nose and mouth. Wash any areas that come in contact with the powder or solution.

The Crystal growing Materials

- Pink and Blue Crystal growing powder
- Measuring cup
- Crystal stones

- What you will need from home
- 2 microwave safe cups with handles. Small cups work best so the solution stays in contact with the crystal stones.
 - Spoon
 - Paper towel



⚠ WARNING: This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

USE ONLY AS INSTRUCTED
Do not swallow or inhale.
Do not get in eyes, on skin or clothing.
Keep out of reach of small children.

FIRST AID TREATMENT
If swallowed, rinse mouth with water.
Consult a physician.
If inhaled, move person into fresh air.
Consult a physician.

If in case of eye or skin contact,
rinse well with water.
If irritation occurs, seek
medical advice.

Prepare the Solution

- Using your measuring cup, pour 100 ml of hot tap water into your cup. You will need to fill your measuring cup twice to the 50 ml line. Add 1 packet of the crystal powder and stir fast for 1–2 minutes until the powder is dissolved.
If powder remains – ask an ADULT to heat the solution in the microwave at 10 second intervals, stirring until fully dissolved. Failure to fully dissolve the powder will impact crystal growth.



STEAM Prompts:

Why is it important to measure water? What do you see happening when we stir the powder into the water? What happens when the water gets warmer?

Grow your Crystals

- Place one crystal growing stone inside the liquid. Leave it undisturbed for 24 hours. **Moving the container may interfere with crystal growth.**

STEAM Prompts:

What do you think will happen to the stone in the solution? Do you think it will change or stay the same?

Repeat Steps

- Repeat these steps with the second crystal growing stone and powder.

STEAM Prompts:

Do you think both stones will look the same after 1 day (24 hours)?

Harvest your Crystals

- Once your stones have rested for 24 hours. Carefully pour off any remaining liquid to reveal the solid crystal structures left behind. Remove your crystals and any loose crystals and set them on a paper towel to dry.



STEAM Prompts:

What changed from yesterday to today? Are your crystals the same size and shape? When compared with the powder, how do your crystals look and feel?

Decorate

- Use the glow-in-the-dark snowflake stickers to decorate the lid and the outside of your terrarium. To “charge” the snowflakes, expose them to a bright light.

STEAM Prompts:

What do you think will happen when you turn off the lights? Does the glow change over time? Can you use a light to help them glow brighter? How would you make a pattern with the stickers?



- Sensory Snow: Squish, stretch and shape the sensory snow and place it into the bottom half of your container. The more you work with it, the fluffier it will become!

STEAM Prompts:

How does the snow feel when you squish it? What happens when you stretch the sensory snow. Does the shape change once you place it in the container?



- Place your large crystals and smaller loose crystals inside the terrarium. If you have crystals attached to the base of the stone, you can break them off and use them to decorate your terrarium. Charge the blue snowflake confetti under a bright light, then place them around the snow.