

TEMPLATE for BEST PRACTICE EXAMPLES



1. Name of the project:

Crystal Suncatchers

2. Subjects covered from STEAM areas:

Science, Technology, Engineering, Art, Math

3. Target group (age range and size of the group):

8-12 years old, unlimited group size (enough lids)

4. Duration of the activity:

20 minutes + a few hours to a day for drying time

5. Keywords:

crystal, evaporation, solution

6. Key sentence describing context of the activity, followed by short description (200 words):

A suncatcher or light catcher is a small reflective, refractive, and/or iridescent ornament.

Crystal Suncatchers are unique suncatchers made with Epsom salt. This is an easy project with minimum ingredients. Therefore, it is suitable for kids and will introduce them some science.

7. Description of the activity environment, including the list of materials and tools needed:

Environment: classroom

Materials and tools:

- Epsom salt
- clear recycled plastic lids
- water
- jar
- bowl or measuring cup
- fork
- tray
- string
- exacto knife or pin

8. Step by step, detailed description of the activity, including teaching and learning strategies:

The ratio of water to Epsom salt is 1:1.

1. Epsom salt

Add 2 dl of Epsom salt to a jar.

TEMPLATE for BEST PRACTICE EXAMPLES

2. Water

Add 2 dl of water to microwave safe bowl. Heat it in the microwave for 45 seconds.

3. Combine

Pour the water into the jar with the salt. Stir the salt and water for 1-2 minutes to dissolve the salt.

4. Prepare lids

Place several plastic lids on a flat-bottomed tray in a sunny location where they can remain undisturbed.

5. Pour

Pour off some of the liquid from the jar into the recycled plastic lids. Use just enough to cover the bottom of the lid. **DON'T OVERFILL!**

6. Wait

Place your lids in sunny location. Depending on how much liquid has been added it will take a few hours or a day to start crystallizing.

7. Crystals!

When the liquid has completely evaporated your crystal suncatcher is ready! You will be able to see lovely crystal structures from both side of the lid.

8. Hanging

VERY carefully poke a small hole in the edge of the lid and thread a piece of string through the hole. Tie in a knot and hang your suncatcher up!

9. Learning objectives/competencies:

dissolving, crystalizing, materials, patterns/shapes, symmetry

10. Evaluation/Assessment guidelines:

Investigating the different sizes of crystals in different lids.

Following the changes in the crystals as they dry.

Measuring the drying time with different thicknesses and lid sizes.

11. Lessons learned:

Use the clearest lids you can find to ensure that sunlight will go easily through and you can see the crystal from both sides.

The sun catchers are very fragile. Handle them with extreme care and maybe let adults do the hanging part of the project.

Over time your crystals will begin to dry out and harden even more. Eventually they will whiten as the salt dries out completely. These suncatchers will have a limited lifespan.

12. Additional information/Links:

-

13. Contact person:

villeteam@utu.fi