

SCIENCE

6TH CLASS

PRIM-ED PUBLISHING

MARSHMEADOWS, NEW ROSS, CO. WEXFORD, IRELAND

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PARENT PACK

Soluble Crystal Designs

TASK:

Design and create a pattern, word or object by growing crystals.

CRITERIA:

- The pattern, word or object must be made from pipe cleaners joined together.
- The pipe cleaners must be suspended in the solution and the pipe cleaner shapes must not touch the sides or bottom of the jar or container.
- Food colouring may be added to the solution to grow different coloured crystals.
- The pipe cleaners must be left in the solution overnight.
- If more solution is required, then it must follow the ratio of half a cup of Epsom salts to half a cup of hot water.
- Safety precautions should be followed when using Epsom salts, such as washing hands thoroughly after using it.

SUGGESTED MATERIALS:

- pipe cleaners
- solution:
 $\frac{1}{2}$ cup of Epsom salts dissolved in $\frac{1}{2}$ cup of hot water
- string
- food colouring
- large jars or containers to suspend the pipe cleaners in
- digital camera or iPad®

STEM

Soluble Crystal Designs

- Research what 'solubility' is and whether the temperature of the liquid makes the Epsom salts more soluble. Find out why crystals form as the solution cools down.
- Plan and draw a diagram of the design your group wants to create, including what colours will be required (if any). Plan and draw a diagram of how the pipe cleaner design will be suspended in the solution.
- Collect the materials you will need, including pipe cleaners, Epsom salts, hot water, string, food colouring, large jars or containers and a digital camera or iPad®.
- Create the pattern, word or object to look like the plan.
- Check that the crystal pattern, word or object meets the criteria.
- Present the final crystal design to the class and explain how it was created and how you chose to suspend the pipe cleaners in the solution. Also explain your design choice. Take a digital photograph of the crystal and display it on the noticeboard.

