



Independent Learning Task

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| Subject | Science | |
| ILP #5 | Investigating crystal growth | |
| Week set: | Week 28 | |
| Duration: | 1 week | |
| Hand in: | Week 31 | |
| Instructions: | <p>In this task, you will be investigating the growth of crystals.</p> <p>You have 3 weeks to complete this task so you can leave your crystals to grow for 1 or 2 weeks.</p> <p>Follow the instructions on the method sheet on the next page.</p> | |
| Skills: | <ul style="list-style-type: none"> • Developing your practical skills. • Improving your method following skills. • Developing your research skills. | |
| Marking schema: | <p style="text-align: center;">Secure</p> <ul style="list-style-type: none"> - Follow the instructions on the method sheet. - Produce salt crystals. - Create a diary with daily updates of the growth of the crystal. | <p style="text-align: center;">Excellent</p> <ul style="list-style-type: none"> - Create a diary of the growth of your crystal that includes pictures and measurements. - Research how to increase the size of the crystals produced. - Consider changes to the investigation that you could make. |
| Additional guidance or help: | Use the picture on the method sheet to help you set up your equipment. | |

Equipment:

- Salt
- Water
- Kettle
- Pencil
- Jam jar or mug
- Cotton string

**Method:**

1. Fill the kettle to half-way and boil the water.
2. Ask an adult to help you fill the jam jar or mug with water from the kettle.
3. Add 2 teaspoons of salt to the water and stir until all the salt has dissolved.
4. Keep adding a teaspoon of salt at a time and stir and repeat until no more salt will dissolve.
5. Attach a paper clip to one end of the piece of string and tie the other end of the string around a pencil.
6. Balance the pencil across the top of the jam jar or mug so that the paper clip dangles into the salty water.
7. Leave the equipment for your chosen amount of time without touching it but observe it throughout and add notes to your diary.
8. When you are happy with the size of the crystal, remove it from the water and take a picture of it next to a ruler to send to/show to your teacher. The biggest crystal in the class will win!

Extension activities

1. Research how we could have made larger crystals.
2. If you did not successfully make any crystals, consider why. What would you change if you repeated the experiment?