

Prize Winner

Crystal Investigation Year 5-6

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Coloured Crystals

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Question: Does the food colouring affect the clarity, size, shape, and appeal of the crystals?

<u>Hypothesis:</u> We think that the colour of a crystal will make it more appealing and more transparent but it will not affect how it grows.

Equipment: while we were making our crystals we used

Gloves
Aprons
Glasses
Beakers
Spatula
Kettle
Scales
Stirring rod
Tweezers
measuring cylinder

Method:

- 1. Measure the potash alum and Boiling water
- 2. Mix the potash alum and colour into boiled water, mixed till dissolved
- 3. Filter into beaker and leave over night
- 4. Use tweezers and get out as many seeds
- 5. Filter the remainder of the solution into a beaker

- 6. Find the most symmetrical seeds and suspend in the filtered solution
- 7. Leave to grow for 10 weeks for a good crystal (If seeds at the bottom grow filter them out)

Ingredients:

- 30g of potash alum x4
- 200ml of hot water x4
- Natural food colouring x25 drops (purple)
- Artificial food colouring x25 drops (red and blue)

<u>Problems:</u> We did not make our observations very clear resulting in it being hard to refer to, another problem is that we had to restart our crystal growing on the 31/5 because we were not happy with the clarity of the crystals.

<u>Solutions to problems:</u> To resolve the first problem, we rewrote and made the observations clearer. To resolve the second one, we worked quickly but still accurately.

Conclusion

In conclusion the colour of a crystal does not affect the crystals size, clarity, and appeal but does not really affect the shape, but the natural food colour affected the clarity, size, shape, and appeal

