

# Crystal Investigation

*The beautiful symmetry of crystals has charmed and delighted people for centuries. Here is your chance to investigate how beautiful crystals are formed.*

## A successful SASTA Oliphant Science Awards Crystal Investigation entry:

- Will answer an investigation question or investigate a hypothesis (prediction).
- Will include at least one crystal that shows sharpness of edges, smoothness of faces and has good clarity (transparency).

## Rules for Crystal Investigation:

- A group of up to 3 students can complete a Crystal Investigation entry. The highest year level in the group will determine the year category of the entry.
- Growing the crystals must be the student's own work.
- The crystals must be made from potash alum (common alum, potassium aluminium sulphate).
- **You must keep a journal or log book of your investigation, which will include details of:**
  - The investigation question or hypothesis.
  - Details of equipment and method used, including the quantities of alum and water used.
  - Dates and times of carrying out procedures.
  - Observations each time the crystals are inspected. This should include a written description as well as drawings or photographs of the crystals.
  - A discussion of any problems encountered and how you overcame them. Evaluate your method and make suggestions for improvements that could be made to it.
  - A summary of your findings including an answer to your investigation question or a statement stating if the hypothesis was supported or not supported by the results.

## In presenting your Crystal Investigation entry:

- **An electronic copy of your log book MUST be uploaded to the Oliphant Science Awards website between 25 - 29 July.** Details can be found here: <https://bit.ly/OSAOnlineSubmission>

- You must package your best crystal in a labelled, separate, small press-seal bag. This bag should then be placed into a padded Post Pak envelope for protection and labelled with a copy of your Identification information. Be sure to also label the small press-seal bag with your ID Number (listed on your Identification Label).
- You must securely attach your Identification Label (your Coordinator will give you this label) to the front of your padded Post Pak envelope

## Important information:

- You need at least 10 weeks to grow a good crystal.
- Information and advice on growing crystals is available for download [here](#).
- You can also download a [log book checklist](#) (pdf) and the [Material Safety Data Sheet](#) (MSDS) for alum (potassium aluminium sulphate).

A good source of alum is needed to grow a clear crystal. Ask your teacher where to obtain alum.

Alum obtained from hardware stores or garden centers is likely to contain impurities and is not suitable without extensive extra preparation.

**You also may be interested in taking part in the RACI National Crystal Growing Competition. Check out the [website](#) for information and dates.**

