

# Giant Crystal Growing Activity

1. What would have happened if you had put your seed crystal in a saturated growing solution that was covered?
  
2. If you came back to school on a Monday and your alum crystal was dissolved, what might have happened over the week-end?
  
3. If you let an alum crystal grow on the bottom of a beaker and let another alum crystal grow from a seed crystal hanging by a string, how would the shapes of the two final crystals differ?
  
4. If a crystal is cloudy, what may be the cause of the cloudiness?
  
5. What is the habit for your alum crystal? Sketch the simplest unit cell for alum. (If there are several variations to the unit cell, draw the simplest one.)
  
6. Does your alum crystal reflect the shape of its unit cell? If not, why might the actual crystal be a different shape than its unit cell?
  
7. If you were to break your crystal in half by tapping the sharp edge of a razor blade on the crystal, what do you think the two broken pieces would look like? *Hint:* Would the crystal break parallel to one of the faces?
  
8. Imagine you have a friend who wants to grow sugar crystals to make rock candy. Briefly outline the instructions you would give your friend for growing sugar crystals. Don't worry about the specific number of grams of sugar—just outline the basic procedure. Write your answer on the back or on a separate sheet of paper.