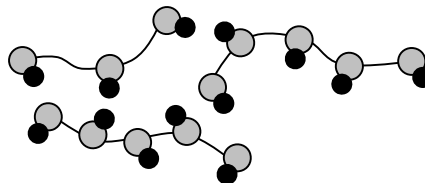
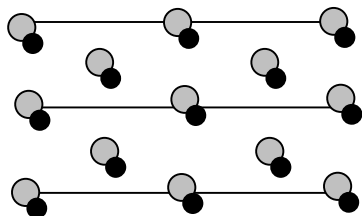
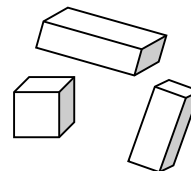


Lesson 5

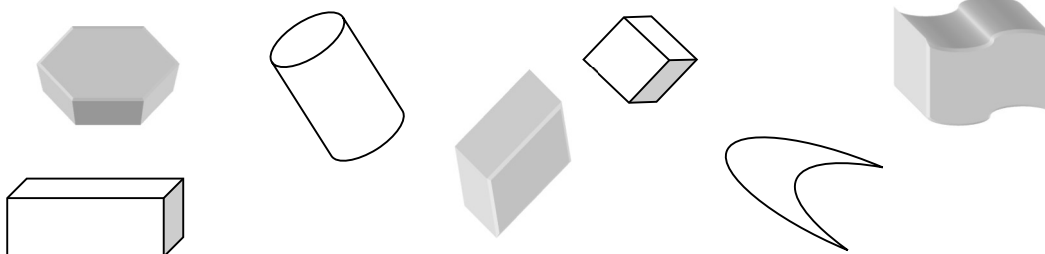
Crystals

Write an **A** under the solid that is amorphous.

Write a **C** under the solid that is crystalline.



Circle the shapes that are unit cells for crystals.



List 3 ways people use crystals:

- 1.
- 2.
- 3.

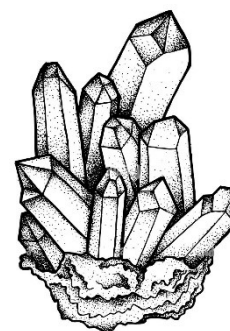
Some crystals you might have around your house are salt, sugar and Epsom salts. If you have them in your house, look at them very closely. A magnifying glass would be very handy to study them. Look at the shape and size of each crystal.

Describe the crystals you studied: _____

You might find some crystals outside. A clear or yellowish stone called quartz can be found in this area. It might look like a large piece of glass or like a diamond. See if you can find any rocks with crystals around your house.

Minerals

Rocks are made of minerals. Read pp. 361 - 367 and answer the questions below to learn more about identifying minerals.



1. What is a mineral?
2. Are minerals usually elements or compounds?
3. What do you call a scientist who studies minerals?
4. Why can't you just look at the color of a mineral to identify it?
5. How do you test for a mineral's streak?
6. What is luster?
7. What is cleavage?
8. What scale is used to measure hardness?

At Home Lab: **Grow your own crystals!** (optional)

Rock Candy

1. Measure 1 cup of water and pour it in a saucepan.
2. If you would like your candy to be colored, add one drop of food coloring to the water.
3. Bring the water to a boil.
4. Once the water is boiling, turn the heat down to medium and add 2 cups of sugar. Stir the mixture for 10 to 15 minutes until all the sugar has dissolved and the solution looks clear.
5. Remove the pan from the stove and let it cool for at least 30 minutes.
6. Stretch a piece of tape across the top of a clean glass or jar and poke a skewer through the tape so that the skewer is dangling in the center but not touching the bottom of the glass. You may need two pieces of tape to hold it.
7. When the solution cools, pour it into the glass or jar until the liquid is about 1 inch from the top of the glass.
8. Put the glass in a place where it will not be disturbed for several days.
9. Check the glass every day and you will soon see crystals growing on the stick. The crystals are made from sugar. After about one week, the crystals will stop growing and you can eat them like candy.

