Discussion

Read each statement of the three statements aloud and select which of the two following statements is consistent.

1. Ice melts when heat speeds up water molecules so fast they cannot align into solid "crystal" structure.

I think the salt makes it *easier* to melt ice.

I think the salt makes it *harder* to melt ice.

2. Pure water starts to melt when the temperature reaches 32 °F. This is the *freezing* point of water.

I think that salt ice starts to melt when it is *colder* than 32 °F.

I think that salt ice starts to melt when it is warmer than 32 °F.

3. Ice melts when energy from the surroundings is transferred to the water molecules in order to speed them up.

I think that melting salt ice will remove energy from the surroundings, making it colder.

I think that melting salt ice will add energy to the surroundings, making it warmer.

Predictions

Which ice solution will melt first? Which last?

Which ice solution will make the surrounding water coldest? Which warmest?

Experiment

| | Temperature (°F) | | |
|------------|------------------|------|-------|
| Time | pure ice | salt | sugar |
| 2 minutes | | | |
| 4 minutes | | | |
| 6 minutes | | | |
| 8 minutes | | | |
| 10 minutes | | | |
| 12 minutes | | | |
| 14 minutes | | | |

