Name: _____ Date: _____

Salt Helps Ice Make Ice Cream

Circle group

Long ago, cooks had no freezers. How did they make ice cream? They used ice and salt.

Plain ice is cold, but not cold enough to freeze cream. Salt changes that. When salt goes on ice, the ice melts faster. As it melts, it pulls heat from things near it. The salty ice and water get colder than plain ice.

Cooks put cream, milk, and sugar in a small can. They set the can in a big tub of ice and salt. Then they turn the can and turn it. The cold pulls heat out of the cream. The turning keeps the ice crystals tiny. Soon the cream is smooth ice cream.

Salt on icy roads helps ice melt too.

Questions

1. What two things did cooks use to make ice cream long ago?

_____

_____

2. What happens when salt goes on ice?

_____

_____

3. What goes in the small can?

_____

_____

4. What does the cold pull out of the cream?

_____

_____

5. Why do cooks turn the can?

_____

_____

6. Why was salt so useful when cooks had no freezer?

_____

_____

Words to know

freezers: machines that keep food very cold

crystals: tiny hard bits of ice

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Salt Helps Ice Make Ice Cream

Triangle group

Long ago, cooks had no freezers. So how could they make ice cream? They used ice and salt.

Plain ice is cold, but it is not quite cold enough to freeze sweet cream. When salt is sprinkled on ice, something odd happens. The ice starts to melt faster. As it melts, it pulls heat from everything around it. The mix of salty ice and water gets colder than plain ice.

Cooks put cream, milk, and sugar in a small container. They set it inside a bigger tub full of ice and salt. A lid on the small container keeps the salt out of the cream. Then they turn the small container again and again. The cold pulls heat out of the cream, and the turning keeps the ice crystals tiny. After a while, the cream becomes smooth ice cream.

People still spread salt on icy roads. It helps the ice melt.

Questions

1. What two things did cooks use to make ice cream long ago?

_____

_____

2. What happens when salt is sprinkled on ice?

_____

_____

3. What goes inside the small container?

_____

_____

4. What does the cold pull out of the cream?

_____

_____

5. Why do cooks keep turning the small container?

_____

_____

6. Why was salt so useful to cooks who had no freezer?

_____

_____

Words to know

freezers: machines that keep food very cold
container: something that holds other things
crystals: tiny hard bits of ice
sprinkled: scattered in small bits

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Salt Helps Ice Make Ice Cream

Square group

Long ago, cooks did not own freezers, so they relied on a clever trick to make ice cream. They used ice and salt.

Plain ice is cold, but it is not quite cold enough to freeze sweet cream. When salt is sprinkled over ice, however, something odd happens: the ice begins to melt faster, and as it melts, it draws heat out of everything around it. The mixture of salty ice and water ends up colder than plain ice could ever be.

Cooks poured cream, milk, and sugar into a small container and set it inside a larger tub packed with ice and salt. Then they turned the small container over and over. The cold drew the heat out of the cream, and the constant turning kept the ice crystals tiny, so that after a while the cream became smooth ice cream.

People still spread salt on icy roads, where it helps the ice melt.

Questions

1. Which two things did cooks use to make ice cream before freezers?

_____

_____

2. What happens to ice when salt is sprinkled over it?

_____

_____

3. What ingredients were poured into the small container?

_____

_____

4. What does the cold draw out of the cream?

_____

_____

5. What does the constant turning of the container accomplish?

_____

_____

6. How did adding salt solve the problem for cooks without a freezer?

_____

_____

Words to know

freezers: machines that keep food very cold
container: something that holds other things
crystals: tiny hard bits of ice
sprinkled: scattered in small bits

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Salt Helps Ice Make Ice Cream

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Salt Helps Ice Make Ice Cream

Easier · 120 words · Flesch-Kincaid grade 0.4

1. Ice and salt.
2. The ice melts faster.
3. Cream, milk, and sugar.
4. Heat.
5. The turning keeps the ice crystals tiny.
6. It made the ice colder, so cream could freeze without a freezer.

Triangle: Salt Helps Ice Make Ice Cream

This passage · 151 words · Flesch-Kincaid grade 2.4

1. Ice and salt.
2. The ice melts faster.
3. Cream, milk, and sugar.
4. Heat.
5. The turning keeps the ice crystals tiny.
6. It made the ice mix colder, so cream could freeze without a freezer.

Square: Salt Helps Ice Make Ice Cream

Harder · 155 words · Flesch-Kincaid grade 6

1. Ice and salt.
2. It begins to melt faster.
3. Cream, milk, and sugar.
4. Heat.
5. It keeps the ice crystals tiny.
6. It made the ice mixture colder than plain ice, so the cream could freeze.