Name: _____ Date: _____

Why Most of an Iceberg Hides Below the Waves

Circle group

You see only the top of an iceberg. Most of the ice is under the water. The reason is density. Density is how heavy something is for its size.

Ice is frozen water. But ice is a little less dense than liquid water. When water freezes, its tiny parts lock into a pattern. The pattern takes up more room. So the ice is lighter for its size. That is why ice floats. But it floats low. Only a small part sticks out. An ice cube in a glass of water does the same. Most of it is below the top.

Icebergs are not frozen sea water. They break off from glaciers. A glacier is a huge river of ice made from snow that fell on land. A piece breaks off and falls in the sea. It drifts away. Sailors know an iceberg is much bigger than it looks. Ships stay far away from them.

Questions

1. What do scientists call how heavy something is for its size?

_____

_____

2. Why does ice take up more room than liquid water?

_____

_____

3. Why does ice float?

_____

_____

4. Where do icebergs come from?

_____

_____

5. Why do ships stay far from icebergs?

_____

_____

6. What does an ice cube in a glass of water show?

_____

Words to know

iceberg: a huge piece of ice that floats in the sea
density: how much matter is packed into a certain amount of space
glaciers: huge, slow rivers of ice that form on land
drifts: floats along slowly, carried by water or wind

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: _____

Why Most of an Iceberg Hides Below the Waves

Triangle group

When people see an iceberg, they see only the top. Most of the ice is hidden under the water. The reason has to do with how heavy things are for their size. Scientists call this idea density.

Ice is made of frozen water, but it is a little less dense than liquid water. As water freezes, its tiny parts lock into a pattern that takes up a bit more room. The same amount of water becomes slightly larger as ice, so ice is lighter for its size. That is why ice floats. But it floats low in the water, with only a small part sticking out. You can see the same thing when an ice cube bobs in a glass of water, mostly below the surface.

Icebergs are not made from frozen sea water. They break off from glaciers, which are huge rivers of ice built from snow that fell on land. When a piece breaks off and falls into the sea, it drifts away on the currents. Sailors have long known that an iceberg is much bigger than the part they can see, so ships stay well away from them.

Questions

1. What do scientists call how heavy something is for its size?

_____

_____

2. Why does ice take up more room than the same amount of liquid water?

_____

_____

3. Why does ice float?

_____

_____

4. Where do icebergs come from?

_____

_____

5. Why do ships stay far away from icebergs?

_____

_____

6. What does an ice cube in a glass of water show?

_____

_____

Words to know

iceberg: a huge piece of ice that floats in the sea
density: how much matter is packed into a certain amount of space
glaciers: huge, slow rivers of ice that form on land
drifts: floats along slowly, carried by water or wind
bobs: moves up and down in the water

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: _____

Why Most of an Iceberg Hides Below the Waves

Square group

When people look at an iceberg, they notice only its peak, because the great majority of the ice lies hidden beneath the water. The explanation has to do with how heavy a material is for its size, a property that scientists call density.

Ice is made of frozen water, yet it is slightly less dense than liquid water. As water freezes, its tiny particles lock into a regular pattern that occupies a bit more space. The same amount of water therefore becomes somewhat larger when it turns to ice, which makes ice lighter for its size, and that is exactly why it floats. Even so, it floats low in the water, with only a small portion rising above the surface. You can observe the same thing when an ice cube bobs in a glass of water, sitting mostly below the surface.

Icebergs are not formed from frozen sea water. Instead, they break away from glaciers, which are enormous rivers of ice built up from snow that fell on land. When a chunk breaks off and tumbles into the sea, it drifts away on the currents. Sailors have long understood that an iceberg is far larger than the part they can see, so ships take care to keep well away from them.

Questions

1. What do scientists call how heavy a material is for its size?

_____

_____

2. Why does ice occupy more space than the same amount of liquid water?

_____

_____

3. Why does ice float?

_____

_____

4. Where do icebergs come from?

_____

_____

5. Why do ships keep well away from icebergs?

_____

_____

6. What does an ice cube bobbing in a glass of water show?

_____

_____

Words to know

iceberg: a huge piece of ice that floats in the sea
density: how much matter is packed into a certain amount of space
glaciers: huge, slow rivers of ice that form on land
drifts: floats along slowly, carried by water or wind
bobs: moves up and down in the water

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: Why Most of an Iceberg Hides Below the Waves

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

Circle: Why Most of an Iceberg Hides Below the Waves

Easier · 154 words · Flesch-Kincaid grade 2.2

1. Density.
2. When water freezes, its tiny parts lock into a pattern that needs more space.
3. It is less dense than liquid water.
4. They break off from glaciers.
5. Most of an iceberg is hidden under the water, so it is much bigger than it looks.
6. Ice floats low, with most of it below the top.

Triangle: Why Most of an Iceberg Hides Below the Waves

This passage · 191 words · Flesch-Kincaid grade 4.7

1. Density.
2. As water freezes, its tiny parts lock into a pattern that needs more space.
3. It is less dense than liquid water.
4. They break off from glaciers.
5. Most of an iceberg is hidden underwater, so it is much bigger than it looks.
6. Ice floats low, with most of it below the surface.

Square: Why Most of an Iceberg Hides Below the Waves

Harder · 211 words · Flesch-Kincaid grade 8.5

1. Density.
2. As water freezes, its tiny particles lock into a pattern that needs more room.
3. It is less dense than liquid water.
4. They break away from glaciers.
5. Most of an iceberg is hidden underwater, so it is far larger than it looks.
6. Ice floats low, with most of it below the surface.