Name: _____ Date: _____

Cut a Hailstone Open and Count the Layers

Circle group

Hail falls as lumps of ice. Some are as small as a pea. Some are much bigger. If a scientist cuts a hailstone in half, the inside has rings. It looks a bit like an onion.

Hail grows in tall storm clouds. The wind in these clouds blows up. The clouds also hold tiny drops of water that are still liquid, even though it is cold. A bit of ice starts to fall. The wind lifts it back up. The cold drops freeze onto the ice. That adds a layer.

The ice goes up and down many times. Each trip makes it bigger and heavier. At last the wind cannot hold it. The hailstone falls.

Hail can hurt people and dent cars. The safest place is indoors. The rings tell the story of the hailstone's wild ride.

Questions

1. What does the inside of a cut hailstone look like?

_____

_____

2. Where does hail grow?

_____

_____

3. What happens when the ice meets the cold drops?

_____

_____

4. Why does the hailstone fall at last?

_____

_____

5. What do the rings tell us?

_____

_____

6. Why is it safest to be indoors in hail?

_____

_____

Words to know

hailstone: one lump of ice that falls from a storm cloud
layer: one flat covering that lies over another
liquid: something that flows, like 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: _____

Cut a Hailstone Open and Count the Layers

Triangle group

Hail is a kind of weather that falls as lumps of ice. A hailstone can be as small as a pea or much bigger. If scientists slice one in half, they can see something surprising. The inside is made of rings, a bit like an onion.

Hail grows inside tall storm clouds. These clouds hold strong winds that blow upward. The winds also hold tiny drops of water that stay liquid even though the air is very cold. A small bit of ice starts to fall, and then the wind lifts it back up. Each time the ice meets those cold drops, they freeze onto it. Another layer is added.

The ice goes up and down inside the cloud many times. With every trip it grows a little larger and a little heavier. At last the wind cannot hold it up any longer, and the hailstone drops to the ground.

Hail can hurt people and dent cars, so the safest place to be during a hailstorm is indoors. Afterward, the rings in a hailstone tell the story of its wild ride.

Questions

1. What does the inside of a sliced hailstone look like?

_____

_____

2. Where does hail grow?

_____

_____

3. What happens when falling ice meets cold drops of water?

_____

_____

4. Why does a hailstone finally fall to the ground?

_____

_____

5. What do the rings in a hailstone tell us?

_____

_____

6. Why is it safest to stay indoors during hail?

_____

_____

Words to know

hailstone: one lump of ice that falls from a storm cloud
layer: one flat covering that lies over another
liquid: something that flows, like water
scientists: people who study how the world works

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: _____

Cut a Hailstone Open and Count the Layers

Square group

Hail is a form of precipitation that falls as lumps of ice. A hailstone may be as small as a pea or considerably larger. When scientists slice one in half, they discover something remarkable: the inside is built from rings, somewhat like an onion.

Hail develops inside towering storm clouds, where powerful winds blow upward. Those clouds also contain tiny droplets of water that remain liquid even though the air is bitterly cold. A small fragment of ice begins to fall, but the wind carries it back up again. Each time the ice encounters those chilly droplets, they freeze onto its surface, and another layer is added.

The ice may travel up and down inside the cloud many times. With every trip it grows a little larger and heavier, until at last the wind can no longer keep it aloft and the hailstone plummets to the ground.

Hail can injure people and dent cars, so the safest place to be during a hailstorm is indoors. Afterward, the rings inside a hailstone reveal the story of its turbulent journey.

Questions

1. What does the inside of a sliced hailstone look like?

_____

_____

2. Where does hail develop?

_____

_____

3. What happens when falling ice encounters the chilly droplets?

_____

_____

4. Why does a hailstone finally plummet to the ground?

_____

_____

5. What do the rings inside a hailstone reveal?

_____

_____

6. Why is staying indoors the safest choice during hail?

_____

_____

Words to know

hailstone: one lump of ice that falls from a storm cloud
layer: one flat covering that lies over another
liquid: something that flows, like water
scientists: people who study how the world works

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: Cut a Hailstone Open and Count the Layers

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

Circle: Cut a Hailstone Open and Count the Layers

Easier · 137 words · Flesch-Kincaid grade 1

1. It has rings, a bit like an onion.
2. In tall storm clouds.
3. The drops freeze onto it and add a layer.
4. It is too heavy for the wind to hold up.
5. The ice went up and down and grew layer by layer.
6. Hail can hurt people and dent cars.

Triangle: Cut a Hailstone Open and Count the Layers

This passage · 181 words · Flesch-Kincaid grade 3.8

1. It is made of rings, a bit like an onion.
2. Inside tall storm clouds.
3. The drops freeze onto the ice and add a layer.
4. It becomes too heavy for the wind to hold up.
5. That the ice went up and down in the cloud and grew layer by layer.
6. Hail can hurt people and dent cars.

Square: Cut a Hailstone Open and Count the Layers

Harder · 178 words · Flesch-Kincaid grade 8

1. It is built from rings, somewhat like an onion.
2. Inside towering storm clouds.
3. They freeze onto its surface and add a layer.
4. It becomes too heavy for the wind to keep it aloft.
5. That the ice traveled up and down in the cloud, growing one layer at a time.
6. Hail can injure people and dent cars.