Name: _____ Date: _____

Why Sleds Slide and Sandpaper Grips

Circle group

Rub your hands together fast. They get warm. You can feel them push on each other. That push is friction.

Friction is a force. It happens when two things rub. It makes things hard to slide. It makes things slow down.

Rough things have lots of friction. Sandpaper is bumpy. It grips. Boots with bumpy bottoms grip the ground. You do not slip.

Smooth things have less friction. A sled slides on slick snow. This is fun on a sled. It is not safe when you walk on ice.

Questions

1. What is friction?

_____

_____

2. What happens when you rub your hands fast?

_____

_____

3. Why does sandpaper grip?

_____

_____

4. Why does a sled slide well on snow?

_____

_____

5. Why are bumpy boots good on a path?

_____

_____

Words to know

friction: a force that slows things when they rub together
force: a push or a pull
grips: holds on tight
slick: smooth and slippery

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 Sleds Slide and Sandpaper Grips

Triangle group

Rub your hands together fast. They get warm, and you can feel them pushing against each other. That push is called friction.

Friction is a force that happens when two things rub. It makes it harder for things to slide. It also makes them slow down.

Rough things have a lot of friction. Think of sandpaper. It is bumpy, so it grips anything that touches it. Boots with bumpy bottoms grip the ground, so you do not slip.

Smooth things have less friction. A sled slides well on slick snow or ice. Socks on a shiny floor can slide too. This is fun on a sled, but it is not safe when you walk on ice.

Friction can help us, and it can be in our way.

Questions

1. What is friction?

_____

_____

2. What happens to your hands when you rub them fast?

_____

_____

3. Why does sandpaper grip things?

_____

_____

4. Why does a sled slide well on snow?

_____

_____

5. Why are boots with bumpy bottoms good for walking on a path?

_____

_____

Words to know

friction: a force that slows things when they rub together
force: a push or a pull
grips: holds on tight
slick: smooth and slippery

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 Sleds Slide and Sandpaper Grips

Square group

Rub your hands together briskly. They grow warm, and you can feel them pushing against each other. That resistance is called friction.

Friction is a force that appears whenever two surfaces rub. It makes sliding more difficult, and it causes moving things to slow down.

Rough surfaces create a great deal of friction. Sandpaper, for example, is bumpy, so it grips anything that touches it. Boots with bumpy soles grip the ground firmly, which keeps you from slipping.

Smooth surfaces create much less friction. A sled glides easily across slick snow or ice, and socks can slide across a shiny floor. That is wonderful on a sled, but it is not safe when you are walking on ice.

Friction can help us, and it can also get in our way.

Questions

1. What is friction?

_____

_____

2. What happens to your hands when you rub them briskly?

_____

_____

3. Why does sandpaper grip things that touch it?

_____

_____

4. Why does a sled glide easily across snow?

_____

_____

5. Why are boots with bumpy soles a good choice for a path?

_____

_____

Words to know

friction: a force that slows things when they rub together
force: a push or a pull
grips: holds on tight
slick: smooth and slippery

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 Sleds Slide and Sandpaper Grips

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

Circle: Why Sleds Slide and Sandpaper Grips

Easier · 89 words · Flesch-Kincaid grade 0

1. A force that happens when two things rub.
2. They get warm.
3. It is rough and bumpy, so it has lots of friction.
4. Slick snow is smooth and has little friction.
5. The bumps make friction, so you do not slip.

Triangle: Why Sleds Slide and Sandpaper Grips

This passage · 127 words · Flesch-Kincaid grade 1.6

1. A force that happens when two things rub together.
2. They get warm.
3. It is rough and bumpy, so it has a lot of friction.
4. Slick snow is smooth and has little friction.
5. The bumps make more friction, so you do not slip.

Square: Why Sleds Slide and Sandpaper Grips

Harder · 130 words · Flesch-Kincaid grade 5

1. A force that appears when two surfaces rub together.
2. They grow warm.
3. It is rough and bumpy, so it creates a great deal of friction.
4. Slick snow is smooth and creates little friction.
5. The bumps create friction that keeps you from slipping.