Name: _____ Date: _____

Why a Bouncing Ball Bounces Lower Each Time

Circle group

Drop a rubber ball. It bounces up. Drop it again and watch. The first bounce is high. The next is lower. The next is lower still.

Why? A ball held up high has energy for moving. When it falls, it goes fast. The floor squashes it. Then it springs up.

Each bounce, a little energy is lost. Some turns into a thump sound. Some turns into a tiny bit of heat. The ball has less energy, so it cannot go as high.

At last, the ball stops.

Questions

1. What kind of ball do you drop?

_____

_____

2. Which bounce is the highest?

_____

_____

3. What makes the ball go fast when it falls?

_____

_____

4. What does some of the lost energy turn into?

_____

_____

5. Why does the ball stop at last?

_____

_____

Words to know

rubber: a stretchy material that bounces back
energy: the power that makes things move or change
squashes: presses flat

thump: a dull, heavy sound

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 a Bouncing Ball Bounces Lower Each Time

Triangle group

Drop a rubber ball. It hits the floor and bounces up. Drop it again and watch. The first bounce is high. The next bounce is lower. The one after that is lower still.

Why does the ball bounce lower and lower?

A ball that is held up high has energy for moving. When it falls, that energy makes it go fast. The floor squashes the ball and then it springs back up.

But each bounce, a little energy is lost. Some turns into a thump sound. Some turns into a tiny bit of heat. The ball has less energy left, so it cannot go as high.

At last, the ball stops and rolls on the floor.

Questions

1. What kind of ball does the passage tell you to drop?

_____

_____

2. Which bounce is the highest?

_____

_____

3. What makes the ball go fast when it falls?

_____

_____

4. What do some of the lost energy turn into?

_____

_____

5. Why does the ball stop bouncing at last?

_____

_____

Words to know

rubber: a stretchy material that bounces back
energy: the power that makes things move or change
squashes: presses flat
thump: a dull, heavy sound

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 a Bouncing Ball Bounces Lower Each Time

Square group

Drop a rubber ball onto the floor, and it hits the ground and bounces back up. Drop it again and watch closely. The first bounce is high, the next bounce is lower, and the one after that is lower still.

Why does the ball bounce lower and lower?

A ball that is held up high has energy for moving. As it falls, that energy makes it travel quickly. When it lands, the floor squashes the ball, and then the ball springs back up.

However, a little energy is lost with every bounce. Some of it turns into a thump sound, and some turns into a tiny bit of heat. The ball is left with less energy, so it cannot rise as high.

At last, the ball stops bouncing and rolls along the floor.

Questions

1. What kind of ball do you drop onto the floor?

_____

_____

2. Which bounce is the highest one?

_____

_____

3. What makes the ball travel quickly as it falls?

_____

_____

4. What does some of the lost energy turn into?

_____

_____

5. Why does the ball finally stop bouncing?

_____

_____

Words to know

rubber: a stretchy material that bounces back
energy: the power that makes things move or change
squashes: presses flat
thump: a dull, heavy sound

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 a Bouncing Ball Bounces Lower Each Time

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

Circle: Why a Bouncing Ball Bounces Lower Each Time

Easier · 87 words · Flesch-Kincaid grade 0.9

1. A rubber ball.
2. The first bounce.
3. Its energy for moving.
4. A thump sound and a bit of heat.
5. It loses a little energy each bounce.

Triangle: Why a Bouncing Ball Bounces Lower Each Time

This passage · 116 words · Flesch-Kincaid grade 1.7

1. A rubber ball.
2. The first bounce.
3. Its energy for moving.
4. A thump sound and a tiny bit of heat.
5. It loses a little energy each bounce, so it has none left to go up.

Square: Why a Bouncing Ball Bounces Lower Each Time

Harder · 133 words · Flesch-Kincaid grade 4

1. A rubber ball.
2. The first bounce.
3. Its energy for moving.
4. A thump sound and a tiny bit of heat.
5. It loses a little energy with every bounce, so it has too little left to rise.