SCIENCE

Fast and slow Earth changes

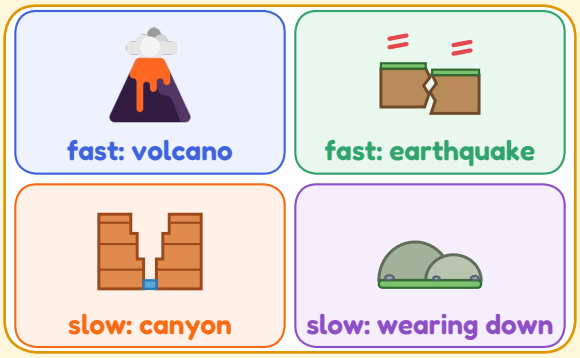


Name _____ Date _____

I can tell if a change to Earth is fast or slow.

1 How it works

Earth's surface is always changing. Some changes are fast and happen in minutes or days: a volcano erupts, an earthquake shakes the ground, or a flood or a landslide moves mud and rocks. Other changes are very slow and take thousands of years, like a river carving a canyon.



2 Fast change or slow change? Circle one.



a cave forms

fast slow



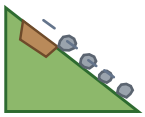
a flood

fast slow



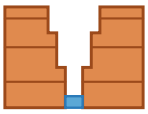
a volcano erupts

fast slow



a landslide

fast slow



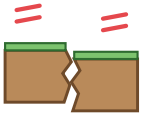
a canyon forms

fast slow



pebbles get smooth

fast slow



an earthquake

fast slow



a mountain wears down

fast slow

How did I do? ☆ ☆ ☆

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SCIENCE · FAST AND SLOW EARTH CHANGES

What changed the land?



Name _____ Date _____

I can match a change to its cause.

1 What made the change? Draw a line.

a canyon	a stream tumbled them for years
a new island	lava cooled and piled up
a crack in a road	a river carved it for a very long time
rocks on a road	a landslide came down the hill
smooth pebbles	an earthquake shook the ground

2 Which is faster? Circle it.

1.	a canyon forming	a volcano erupting
2.	a landslide	a mountain wearing down
3.	a cave forming	a flood
4.	an earthquake	a pebble getting smooth

How did I do? ☆ ☆ ☆

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SCIENCE · FAST AND SLOW EARTH CHANGES

Think like a scientist



Name _____ Date _____

I can explain how Earth changes fast and slowly.

1 Think about it

1. Why is a volcano a fast change? _____
2. How can a river make a canyon? _____
3. How can you stay safe in an earthquake? _____
4. Name a slow change you have seen. _____

2 True or false? Circle it.

1. An earthquake shakes the ground.	true	false
2. A canyon forms in one day.	true	false
3. Wind and water can make slow changes.	true	false
4. A volcano can change land quickly.	true	false
5. Earth's land never changes.	true	false

3 Draw one fast change and one slow change. Label each one.

How did I do? ☆ ☆ ☆

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SCIENCE · FAST AND SLOW EARTH CHANGES

Try it: flood or drip?

Name _____ Date _____

I can compare a fast change and a slow change.

1 You need

- a tray
- damp sand
- a cup of water
- a spoon
- a towel

2 What to do

1. Build two hills of damp sand on the tray, the same size.
2. Pour the whole cup of water on hill 1 all at once. This is a flood.
3. Fill the cup again. Drip it on hill 2 one spoonful at a time for 3 minutes.
4. Draw both hills. How did each one change?

3 I predict

Which hill will change more?

4 What I see

Hill	Draw it	What changed?
before		
hill 1: fast		
hill 2: slow		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: fast and slow Earth changes

1 Page 1

Answers: 1) a cave forms: slow; 2) a flood: fast; 3) a volcano erupts: fast; 4) a landslide: fast; 5) a canyon forms: slow; 6) pebbles get smooth: slow; 7) an earthquake: fast; 8) a mountain wears down: slow.

2 Page 2

Causes: 1) a canyon: a river carved it for a very long time; 2) a new island: lava cooled and piled up; 3) a crack in a road: an earthquake shook the ground; 4) rocks on a road: a landslide came down the hill; 5) smooth pebbles: a stream tumbled them for years.

Faster: 1) a volcano erupting; 2) a landslide; 3) a flood; 4) an earthquake.

3 Page 3

Think: 1) It can change the land in hours or days; 2) It carves rock a little at a time for a very long time; 3) Drop, cover and hold on; 4) Answers will vary.

True or false: 1) true; 2) false; 3) true; 4) true; 5) false.

Drawing: answers will vary, for example a volcano erupting (fast) and a river carving a canyon (slow).

4 Page 4: Try it!

The flood quickly cuts a big gully in hill 1 or washes much of it away: a fast change. Hill 2 changes a little at a time as small channels carve into it. Real slow changes take thousands of years, but the drips show how small changes add up.

5 Teaching tip 💡

Make a class timeline with two ends: one second and one million years. Let children place each change on it with a sticky note.

Safety: work outside or on a tray, keep sand away from eyes and wash hands after.

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