

Sudden Changes to Earth's Surface — Short Answer Task

A3-EARTH other summative · 25% due: End of Component 3 (around Lesson 9)

Summative short-answer and source-analysis task for the Earth and space sciences strand. Students explain the causes and surface effects of sudden geological events and extreme weather, and interpret a short data/case-study source. Completed individually in class (~45–60 minutes). Assesses ULO3 (effects of sudden geological events and extreme weather on Earth's surface). Modelled on the SCSA Year 6 Investigation Template (earth and space). Weighting is a school convention (25% of four equally weighted summatives), not mandated by the syllabus.

Task

The surface of the Earth can change suddenly. In this task you will explain how sudden geological events and extreme weather change the Earth's surface, and you will use a source to describe how an event affected a community.

What to do: answer all questions on your own using full sentences and correct science words. Part C uses the source your teacher provides.

Part A — Causes and effects

1. Explain what causes an **earthquake** and describe one way it can change the Earth's surface.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines, typical of notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

2. Explain what causes a volcanic eruption and describe one way it changes the Earth's surface.

3. A tsunami and a cyclone are both sudden, powerful events. Complete the table to compare them.

	Tsunami	Cyclone
What causes it?		
How it changes the surface		
One effect on a community		

Part B — Sudden or slow?

4. Some changes to the Earth's surface are sudden and some are slow. Explain the difference between a sudden geological event and slow change by erosion, giving an example of each.

[illegible]

Part C — Using a source

5. Look at the source your teacher has given you about a real extreme weather event. Using the source, describe how the event affected the land and the people, and name one way people prepared for it or responded to it.

Rubric criteria (weights as a percentage of this assessment)

Criterion	Weight	Descriptor
Causes and surface effects of sudden geological events	35%	High (5–6): Accurately explains the causes of earthquakes and volcanic eruptions and clearly describes how each changes the Earth's surface, using correct vocabulary. Sound (3–4): Explains the causes and describes a surface effect for each. Limited (1–2): States a cause or an effect with little explanation.
Comparing events and distinguishing sudden from slow change	35%	High (5–6): Clearly compares a tsunami and a cyclone and accurately distinguishes sudden events from slow change by erosion, with relevant examples. Sound (3–4): Compares the events and gives a mostly correct distinction with examples. Limited (1–2): Limited comparison or distinction, with few examples.
Interpreting a source about an extreme weather event	30%	High (4): Uses the source accurately to describe effects on land and people and identifies a relevant preparation or response. Sound (2–3): Uses the source to describe some effects and names a response. Limited (1): Refers to the source with limited detail.