

Earthquakes

1. Question & Research Task

In 2021, [two small earthquakes rattled Baltimore, Maryland](#). The first registered 2.6 magnitude, and the second earthquake, just two days later, registered 1.7 magnitude. Earthquakes are common in other parts of the United States, but are relatively rare in Maryland.

Do you know what causes earthquakes? Watch this [video](#) about earthquakes from Scholastic.

Would you be prepared if another earthquake happened in or near Maryland?



Image Source: [Discovery Education](#) by subscription

In this Slam Dunk, you will conduct brief, focused research to respond to the inquiry question:

What are earthquakes and how can we prepare for them?

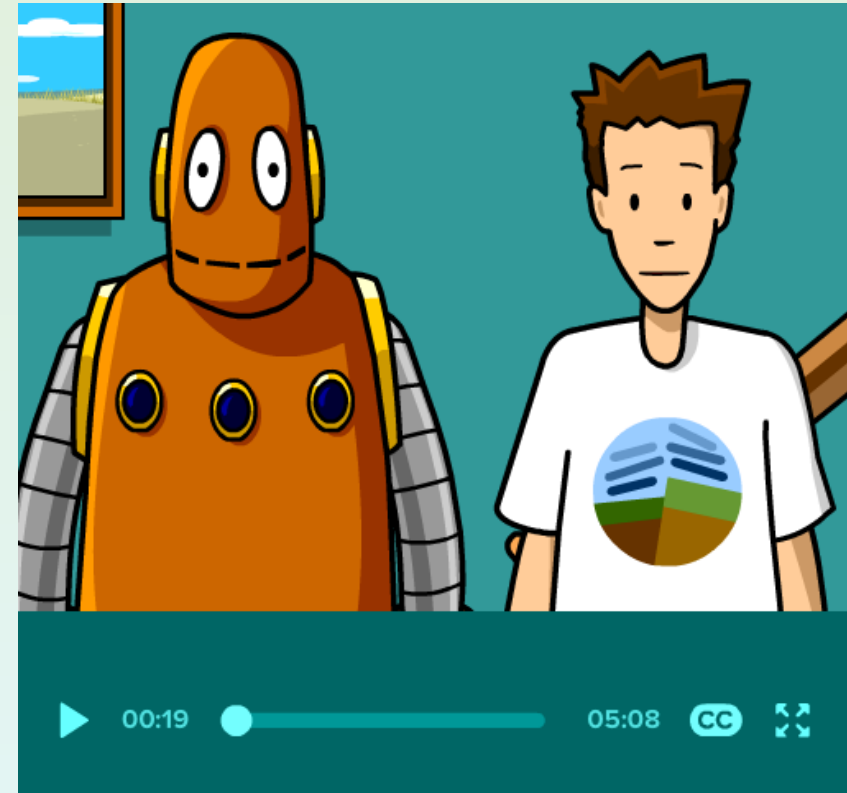
2. Information Sources

Learn more about earthquakes using these sources:

- [Earthquake](#) - encyclopedia entry from World Book Kids.
- [Earthquakes](#) – images and text from DK Find Out

Learn about earthquake safety using these sources:

- [Earthquake Safety](#) - tips for earthquake safety.
- [Earthquakes: Ready.gov](#) - what to do to prepare for an earthquake.
- [Seven Steps to Earthquake Safety](#) - a step-by-step guide with details on what to do before, during, and after an earthquake.



Select the image above to view a [BrainPop video](#) about Earthquakes.

Image Source: Brain Pop

3. Student Activity

Use the information sources on slide 2 to answer these questions:

- What are earthquakes?
- What causes earthquakes?
- What can you do to prepare for earthquakes?
- What should you do if you experience an earthquake?

Use this [graphic organizer](#) to organize your information.



Select the image above to read the article *Earthquake, Tsunami Strike Japan* By Zach Jones from Scholastic.

Image Source: [Scholastic.com](https://www.scholastic.com)

4. Assessment Activity

What are earthquakes and how can we prepare for them?

Use the information you gathered from the sources on Slide 2 to create an **Earthquake Safety** poster that could be used to remind students at your school what to do in case of an earthquake or how to prepare for an earthquake.

Here are some digital tools that you could use:

- [Discovery Ed Board Builder](#)
- [Wixie](#)
- [Google Slides](#)

You may use non-digital tools if you prefer:

- Poster board/paper
- Markers/crayons/paint
- Pencils/pens
- Digital photos
- Scissors
- Glue

Your finished safety poster will be scored using this [rubric](#).



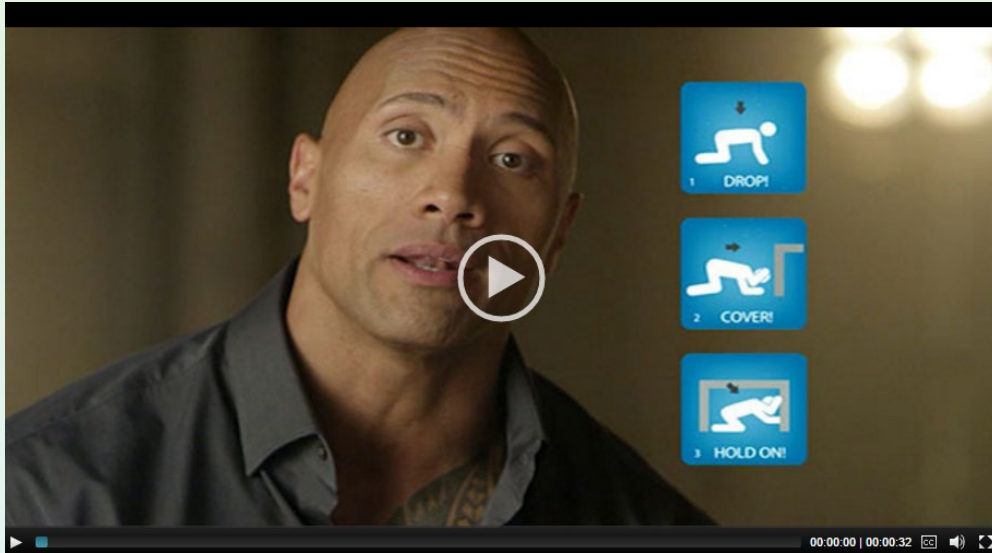
Image Source: fema.gov
[Shake Out poster](#)

Image Source: ShakeOut.org

5. Enrichment Activities

SLIDE NAVIGATION

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Select the image above to watch a 30 second Public Service Announcement regarding earthquake safety brought to you by The Ready Campaign and The Ad Council.

Image Source: [LA Times](#)

Extension Activity:

- Create a PSA video for Earthquake Safety.
- This video should provide information for earthquake preparedness or what to do during an earthquake.
- Write a short script.
- You could use a digital camera or a smartphone to record your PSA.
- Your PSA video should not be longer than 2 minutes long. The audience that will be viewing your video will be your school community.

6. Teacher Resources

Learning Standards Alignment

[Next Generation Science Standards](#)

4. Earth's Systems: Processes that Shape the Earth

4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

[Common Core State Standards for English Language Arts & Literacy](#)

Reading: 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Writing: 7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

[AASL Standards Framework for Learners](#) Inquire: Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.

Think: Learners display curiosity and initiative by:

I.A.2 Recalling prior and background knowledge as context for new meaning.

Create: Learners engage with new knowledge by following a process that includes:

I.B.1 Using evidence to investigate questions. I.B.3 Generating products that illustrate learning.

Share: Learners adapt, communicate, and exchange learning products with others in a cycle that includes:

I.C.1 Interacting with content presented by others.

Grow: Learners participate in an ongoing inquiry-based process by:

I.D.2 Engaging in sustained inquiry.

[P21 Framework: 21st Century Student Outcomes](#)

3. Information, Media & Technology Skills: Information Literacy: Access information efficiently and effectively; Use information accurately and creatively for the issue or problem at hand.

ICT Literacy: Use technology as a tool to research, organize, evaluate and communicate information.

SLIDE NAVIGATION

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Grade 4 Science

Objective: Students will conduct brief, focused research in order to answer the question “what are earthquakes and how can we prepare or them?”

Time Frame: two to four 50-minute class periods

Differentiation strategies for this lesson:

- Have students use learning supports provided in BCPS Digital Content found in the [Apps Portal](#). Refer to [Digital Content Snapshot/Support pages](#) as needed.

Notes to the teacher:

- Collaborate with your school library media specialist to plan and implement this lesson.
- Provide students with login information as needed to authenticate BCPS Digital Content. Login information is available on the **BCPS Digital Content** page found via the [Apps Portal](#)
- Model the use of Discovery Ed Board Builder or Google Slide to create posters.