

Youth & Education in Science (YES)

Lesson Title	Earthquake ABC: A Child's View of Earthquake Facts and Feelings [®]
Grades	K - 5
Length	1 lesson, 30-45 min.
Topics	Earthquake, natural forces, preparedness
Materials Needed	Online book: https://earthquake.usgs.gov/learn/kids/abc/children/ This book can be purchased from the publisher, Sirius Productions in La Canada. See the Sirius web page for special school pricing and further information.
NGSS Alignment	NGSS_earthquakeABCs lesson.pdf
Overview	Students in the 2 nd and 3 rd grades classes who experienced the Northridge earthquake of Jan. 17, 1994 created an alphabet book from their first-hand experience. The children generated lists of words they associated with earthquakes and sorted them into three groups: fact words, feeling words, and preparedness words. Each child selected words to illustrate and define. A Parent's Guide and Teacher's Guide give ideas for using the ABC book with students of all ages.

Objective

- Students will understand terminology specific to earthquake processes.
- Students will understand some of the physical and emotional challenges associated with a natural hazard, specifically and earthquake.
- Students will know several ways to prepare for a natural hazard in their home.

Related Links

[Parent's Guide to Earthquakes](#)

<https://earthquake.usgs.gov/learn/kids/>

<https://earthquake.usgs.gov/>

Vocabulary

earthquake, aftershock, epicenter, foreshock, geology, intensity, jolting, lava, magnitude, P-waves, richter scale, strike slip, Seismograph, thrust, Tsunami, uplift, vibrations

Teacher Background

Large earthquakes are a source of stress to all of us who live through them and children are no exception, but to the children of Paula Rao's 2nd and 3rd grade class in Pasadena, California, the Northridge earthquake of January 17, 1994 was the source of more than stress, it was a real-life example of our most recent school project.

Dr. Lucy Jones, a seismologist with the U. S. Geological Survey, is a parent of one of the students in the class and had been coming to give weekly earth science lessons. Our most exciting lesson was when a film crew from the Discovery series of the ABC television network filmed a 2 hour lesson with Dr. Jones that was used in their special program, "Earthquakes: The Terrifying Truth." The big earthquake hit only three days later!

The Northridge earthquake was a special opportunity to live our lessons. Although Dr. Jones's visits were curtailed for the next 2

months, we continued our studies to better understand what we had experienced. When it was time to share what we had learned with our parents, we decided to use an alphabet book format as a way organizing our information. The children generated lists of words they associated with earthquakes and sorted them into three groups: fact words, feeling words, and preparedness words. Each child selected words to illustrate and define. Later the text was typed, pictures were pasted up and a copy was bound for each child to take home. This edition is a copy of that first book.

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Hardcopy Availability This book can be purchased from the publisher, [Sirius Productions](#) in La Canada. See the Sirius web page for special school pricing and further information.

This is a non-profit effort with royalties going to the San Rafael Elementary school.

Lesson Plan

[Parent's Guide](#) – glossary of each term used in the book

Before You Read

- Read or paraphrase the portion of the preface that tells why this book was written.
- Does this book remind you of any projects you've done before?
- What are some words you think of when you hear the word "earthquake"? (Record student responses.)

After the First Reading

- Do you feel any differently about earthquakes after reading this book?
- What surprised you most?
- What question would you like to ask the author/artist of (a chosen page) in this book?

Exploring Further

- The children who made this book tried to include science, feeling, and preparedness words. In which group would (your chosen word) be? Can you sort other words into these three categories?
- What do you know about this word that the author didn't say? What else would you write if you were the author of this page?
- Pick an earthquake science word to research and write about.
- Make a model of one of the science words. See *Baker: Make it Work! Earth* for useful ideas on modeling several concepts in this book. Refer also to "Jello" in the glossary.
- Pick a feeling word to explore through poetry. See *Stolz: Storm in the Night* for beautiful descriptions of natural forces at work.
- Make a list of preparedness plans that you learned from these pages to share with your family.
 - [Earthquake safety and preparedness](#)
- Make your own drawing for one of these words. (Indicate a page) Do you agree or disagree? Why? How would you rewrite that entry?
- If you chose a topic to make an ABC book about, what would it be?