

Using waves to see inside the Earth: Summary of Resources

This resource pack contains 4 lessons that fit within the KS4 science syllabus and demonstrate how key concepts can be applied to the Earthquakes and Earth structure. Key syllabus concepts covered include: waves, seismic waves shadow zones, graph skills and heat transfer. Lessons are designed to promote discussions about the breadth of people, skills and jobs available within Geoscience, broadening knowledge beyond the stereotypes of geologists only studying rocks and fossils.

Each lesson comes with powerpoints, worksheets/activities and an associated lesson plan.

List of resource pack contents:

Lesson 1: Seismic Waves and Seismometers

- PowerPoint 1
- 'Making a seismometer' instructions
- Lesson 1 worksheet
- Lesson Plan 1

Lesson 2: Locating Explosions and Earthquakes

- PowerPoint 2
- Quiz
- Graph
- Seismograms
- Map
- Lesson 2 worksheet
- Lesson 2 answer sheet
- Lesson Plan 2

Lesson 3: Looking Inside the Earth

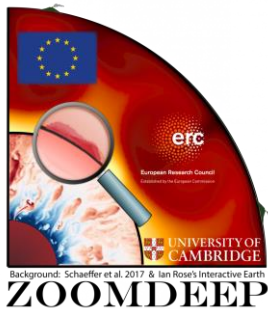
- PowerPoint 3
- Lesson 3 worksheet
- Lesson 3 answer sheet
- Lesson Plan 3

Lesson 4: The Dynamic Inner Earth (ICT based lesson)

- PowerPoint 4
- Instructions for students (to be accessed in an ICT room)
- Lesson Plan 4
- Timeline handout

Acknowledgments

These resources were designed by University of Cambridge Earth Sciences student Gemma Shaw, with input from high school teachers (Caitlin McCann and Rosie Jenkins), students and scientific researchers from the University of Cambridge Deep Earth Seismology group. The project was funded by a European Research Council Grant for project ZoomDeep. If you have any feedback from using these resources in your own classroom that could help improve the material, please feel free to contact Gemma Shaw at gl44@cam.ac.uk.



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