

Quaking – Module on the Topic of Earthquakes

Methodological and
didactic comments



Yaps
Raising
young people's
awareness on
preparedness and
self protection



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Commission provides
funding for the project.

Project Partners



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Quaking – Learning Module on the Topic of Earthquakes

General Information

<p>What subjects is this module suitable for?</p>	<ul style="list-style-type: none"> • English • General Knowledge • Arts • Cross-Disciplinary Subjects
<p>What age group is this module suitable for?</p>	<p>for the age group 8-11</p>
<p>What general skills are taught using this learning module?</p>	<ul style="list-style-type: none"> • Developing communication, writing and reading skills • Analysing and evaluating information, facts and situations • Working with texts and reading comprehension • Reading maps and recognising country borders • Stimulating motor skills and creativity • Creatively implementing ideas • Training speech and active listening • Explaining terms by paraphrasing • Training focusing skills
<p>What thematic skills are taught using this learning module?</p>	<ul style="list-style-type: none"> • Understanding the causes and consequences of earthquakes • Knowing when, why and where an earthquake can occur • Naming European countries with high risk of earthquakes • Knowing where the countries with high risk of earthquakes are found on the map • Realising that earthquakes of smaller intensity occur in Germany as well every now and then • Knowing the most important earthquake safety rules

Context

There are several hundred earthquakes that occur every day across the world. Most of them are of small intensity. Earthquakes with a magnitude of over six occur about three times per week. Particularly at the edges of larger continental plates there are stronger earthquakes occurring on a regular basis. In Europe, the Mediterranean area is particularly prone to earthquakes.

Germany lies in the middle of the Eurasian continental plate, so that stronger earthquakes only seldomly occur. Earthquakes usually occur along the Rhine Valley, in the Swabian Alb region and in Vogtland. On the average, an earthquake with an intensity higher than 4.5 occurs once every year in Germany.

Source: German Federal Institute for Geosciences and Natural Resources

Even if pupils do not live in an area at risk of earthquakes, they have probably seen pictures or television reports on the effects of earthquakes before. Some children might be travelling on holiday with their parents or grandparents to earthquakeprone countries.

This teaching unit can be used to inform pupils in the age group 8-11 about the topic of earthquakes. They learn when and how earthquakes occur as well as what regions in Europe are particularly at risk of earthquakes. Moreover, they learn that earthquakes also occur in Germany, as well as where this happens. Pupils are asked to consider what it means to behave adequately in the event of an earthquake, and to swap ideas about this in class.

Focusing on the world we live in, on taking action, the variety of methods and learning by discovery are the main didactic principles used. Thus, pupils deal independently and actively with the topic of earthquakes through work assignments, stories, images and games. In doing so, they do not only acquire factual knowledge, but also social, decision making and methodological skills. The drawings stimulate creativity and imagination as well as motor skills through drawing and cutting out. The word game enhances verbal expression and expands pupils' active vocabulary.

Methodological and didactic comments

The learning module consists of various tasks that deal with the issue of earthquakes from different perspectives. Depending on the pupils' level of knowledge and writing skills, the task can be solved separately, or as a whole.

Wordquake – can you fill in the blanks?

General competences conveyed

- Analysing and assessing information, facts and situations
- Working with texts and reading comprehension
- Training writing and reading skills

Based on the opening story, in which Max and Flocke supposedly experience an earthquake, pupils learn why, when and how earthquakes occur. Depending on the pupils' level of knowledge and writing skills, the task can be solved individually or in pairs, comparing the results afterwards in class.

Where do earthquakes occur in Europe?



General competences conveyed

- Analysing and assessing information, facts and situations
- Reading maps and recognising country borders
- Stimulating motor skills

In this task, pupils discuss about the threat of earthquakes in Europe. They learn which countries are particularly at risk of earthquakes. They colour the countries on a map of Europe accordingly. Thus, pupils gain a visual impression of the positioning of earthquakeprone regions in Europe.

As part of this task, pupils deepen their geographical knowledge regarding the positioning of European countries on the map.

They practice handling a map and work out the positioning of European earthquakeprone areas. Also, they train their motor skills by colouring..

Tip:

Depending on the pupils' level of geographical knowledge, a map of Europe or an atlas can be used to identify the location of countries on the map.

Steady on the legs – how to behave in case of an earthquake



General competences conveyed

- Working with texts and reading comprehension
- Analysing and evaluating information, facts and situations
- Creatively implementing ideas
- Stimulating motor skills and creativity

In this task, pupils are asked to cut out the cards, to match the texts with the right images and to glue the card pairs onto a piece of paper. Moreover, they are asked to bring in their own ideas in form of drawing and descriptive text. In this way, pupils get an overview and visual representation of the main safety rules in case of earthquakes.

The task aims at deepening and consolidating pupils' knowledge regarding proper behaviour in the event of an earthquake. Cutting out and matching cards trains motor skills and stimulates motor and creative skills. The task can be solved individually, in pairs, or in small groups.

Tip:

In addition, pupils can present their own ideas in the classroom regarding proper behaviour, draw and write them down in the empty field. The teacher should make sure that appropriate ways of behaviour are emphasised, put down on paper, and thus consolidated.

Flocke's word game

The word artist game is a building block in tackling with the topic of earthquakes in a playful manner. Twelve cards are made available in this issue, taking up on the most important terms of the module again.

The game offers opportunities for reflection and helps consolidate knowledge related to the topic of earthquakes. Language skills are promoted and the vocabulary is enriched.

The word game can be played at school or with family and friends. Thus, this topic is not only addresses at school, but also in the family.



Auxiliary learning modules

The following teaching units offer more in-depth thematic knowledge:

- Fire – Module on Fire Safety Education
- Bless you! – Module on the Topic of Influenza and Viruses
- Knife, Fork, Scissors, Light – Module on Household Risks
- Helpfulness – module on the correct behavior in an emergency
- Safety First – Module on the Topic of Safe Ways to School
- Fast as Lightning – Module on Storms
- Completely Soaked – Module on the Topic of Floods and Landslides
- Highly Dangerous – Module on Drought and Forest Fires
- Quaking – Module on the Topic of Earthquakes
- Supportive – Social Engagement in a Community
- A Matter of Honour – Module on Volunteering