

# THE KOBE EARTHQUAKE

A collaborative activity for Key Stage 3



## Teacher's Notes

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## How to use the materials

**1. Vocabulary matching task:** Reinforce new vocabulary by matching definition to key words. This could be done as a game in groups of 3 or 4. Cut up the definitions. One pupil reads the definition and the other 2 or 3 compete to be the first to give the word - can be timed for extra challenge. Groups stick the definitions on to the sheet. Encourage pupils to write the word in home language where this would help them (can be done with a bilingual dictionary or at home with parents).

### Vocabulary:

- ☀ continental plates
- ☀ crust
- ☀ death toll
- ☀ densely populated
- ☀ destroyed
- ☀ devastated
- ☀ earthquake
- ☀ energy builds
- ☀ Richter Scale
- ☀ survived
- ☀ tremors

## 2. Jigsaw task

This material links reading and oral skills and provides practice in study skills. The text is divided into three parts so that pupils have the task of collecting information from each other as well as from the text. The information can be recorded in note form to provide a basis for extended writing.

1. Divide pupils into three groups. These can be arranged so that particular individuals can gain support from other members of the group. With large classes these groups can be subdivided.
2. Give each pupil a copy of the Recording Sheet.  
Give each pupil in group 1 a copy of Text A.  
Give each pupil in group 2 a copy of Text B.  
Give each pupil in group 3 a copy of Text C.

3. Each individual fills in as much of the Recording Sheet as they can from their information sheet, with the support of other members of the same group. (The passage can be read aloud by one member of the group, or pupils can work in pairs).
4. Members of each group then split into 2's and 3's and interchange with other groups, so that each new group involves members with Texts A, B and C. The pupils then attempt to complete all the questions on the Recording Sheet.
5. Once the Recording Sheet is completed, the information can be copied into the pupils' books or used for writing an extensive account of the Kobe Earthquake.

## Follow up tasks

1. **Homework task:** Targetted pupils complete cloze exercise to consolidate understanding of content and practise new vocabulary.
2. **Extension:** Look on following links for more information: Pupils to work in pairs or small groups to discuss the eyewitness accounts and to use the links below to find other eyewitness accounts. Pupils could discuss similarities and differences.






<http://www.georesources.co.uk/kobehigh.htm>



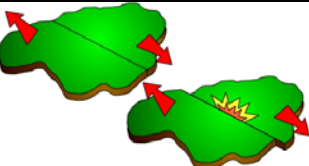



[http://news.bbc.co.uk/onthisday/hi/dates/stories/january/17/newsid\\_3375000/3375733.stm](http://news.bbc.co.uk/onthisday/hi/dates/stories/january/17/newsid_3375000/3375733.stm)

[http://en.wikipedia.org/wiki/Great\\_Hanshin\\_earthquake](http://en.wikipedia.org/wiki/Great_Hanshin_earthquake)

Scroll down the page and find 'Languages' on the right hand side and pick the relevant language/languages for your pupils and the English version will be translated to the chosen language.

**Vocabulary Activity:** Work in groups. Read/listen to the definitions for these words. Match the right definition to the word.  
Can you add a word in your language?

Image	Word	Definition/Meaning	Word in home language
 <p>A map showing the boundaries of three tectonic plates: the Eurasian Plate (green), the Pacific Plate (red), and the Philippine Plate (red). The plates are shown as overlapping and moving relative to each other.</p>	continental plates		
 <p>A diagram of the Earth showing its internal layers. The outermost layer is labeled 'Crust' with a red arrow pointing to it. The crust is shown in red and orange, while the interior is blue and green.</p>	crust		
 <p>An illustration of two people, a man and a woman, standing together. A large red 'X' is drawn over them, indicating a death toll or a tragic event.</p>	death toll		
 <p>An illustration of a large, dense crowd of people, representing a densely populated area.</p>	densely populated		
 <p>An illustration of several buildings that have been destroyed, with rubble and debris scattered around them.</p>	destroyed		

	<p>devastated</p>		
	<p>earthquake</p>		
	<p>energy builds</p>		
	<p>Richter Scale</p>		
	<p>survived</p>		
	<p>tremors</p>		

**Vocabulary Activity:** Cut out these definitions (word meanings). Work with a partner or group to match the definition with the correct word, and then stick it in the right box. How quickly can you do it?

<b>Definition/Meaning</b>
Something that causes a lot of damage.
An area of space with many people.
A sudden, violent shaking of the earth's surface.
To damage something to the point that it no longer works or exists.
Number of people killed at any one time, in an accident, war or disaster etc.
The outer shell of the earth (the planet where we live).
When the ground shakes a little.
A large area of the earth's surface made up of the crust and uppermost mantle (layer of rock that lies under the crust) which move about.
A way of measuring how strong an earthquake is.
To carry on living or existing.
The build up of force in an area.

## Vocabulary Activity: Master copy

Word	Definition/Meaning	Word in home language
<b>continental plate</b>	A large area of the earth's surface made up of the crust and uppermost mantle (layers of rock that lies under the crust) which move about.	
<b>crust</b>	The outer shell of the earth (the planet where we live).	
<b>death toll</b>	Number of people killed at any one time, in an accident, war or disaster etc.	
<b>densely populated</b>	An area of space with many people.	
<b>destroyed</b>	To damage something to the point that it no longer works or exists.	
<b>devastated</b>	Something that causes a lot of damage.	
<b>earthquake</b>	A sudden, violent shaking of the earth's surface.	
<b>energy builds</b>	Build up of force in an area.	
<b>Richter Scale</b>	A way of measuring how strong an earthquake is.	
<b>survived</b>	To carry on living or existing.	
<b>tremors</b>	When the ground shakes a little.	

# A

## The Kobe Earthquake

### FACTS

On January 17, 1995, a devastating earthquake struck Japan. The worst hit area was Kobe where over 7,000 people were injured.

The Kobe earthquake was many times stronger than that which devastated Los Angeles.

### EFFECTS

Following the earthquake, residents faced problems of getting food. Many homes still standing had no gas or telephone lines.

In all, over 10,000 buildings had been severely damaged in Kobe. Many of the buildings were destroyed by the fires which broke out after the earthquake. The sky above the port of Kobe was crimson with flames.

Kobe is not considered to be a major earthquake area, the last serious earthquake to hit the area was in 1916.

Japan lies near the meeting of Continental plates, vast regions of crust that floats like a skin on fluid rock beneath. Energy builds up when the plates slide under each other, causing earthquakes to occur.

### STRATEGIES

Japan spends millions of pounds a year on earthquake prediction and monitoring. Also, Japan spends a lot of money on research into earthquake proof buildings and motorways.

Many of the newest buildings designed to withstand earthquakes did survive.

However, the earthquake flattened motorways between Kobe and Osaka as their supports collapsed. The roads were supposedly five times stronger than those in Los Angeles. Consequently, the motorways in Japan are 50 per cent more expensive to build than in other countries.

## **B**

### **The Kobe Earthquake**

#### **FACTS**

A 20 second earthquake struck Japan in 1995. Kobe, Japan's fifth largest city, with 1.5 million people, was the worst hit area.

The earthquake struck early in the morning while most people were asleep. The death toll would have been higher if the earthquake had struck during the "rush hour".

More damage occurred in Kobe than in the Los Angeles earthquake. This is because Kobe is a much more densely populated area.

#### **EFFECTS**

Following the earthquake residents faced problems getting water. Many homes still standing had no electricity. People were too afraid to return to their homes in case more tremors occurred. Hundreds of people wandered about in the icy cold.

The lack of availability of water caused problems for fire fighters who tried to stop the spread of fires after the earthquake.

Kobe is not considered to be a major earthquake area. The last earthquake to hit the area measured 6.1 on the Richter Scale. The earthquakes occur when the Continental plates slide under each other.

#### **CRITICISM**

Many people asked questions about the devastating effect of the Kobe earthquake. Why did over 10,000 buildings collapse and more than 10,000 be severely damaged?

# C

## The Kobe Earthquake

### FACTS

The earthquake which struck Japan measured 7.2 on the Richter Scale. The earthquake was devastating, 3,000 people are known to have died in Kobe.

More damage occurred in Kobe than in Los Angeles (USA) where an earthquake struck exactly one year before.

### EFFECTS

Following the earthquake in Kobe residents faced problems finding blankets to ward off the near freezing temperatures. Many homes still standing had no water, and people were too afraid to return to their homes.

Hundreds of people wandered about the city in the icy cold in search of shelter, warmth, food and water.

At least 8,000 houses were destroyed in the Kobe area. Many of the buildings were destroyed by fires which spread quickly.

Over 150 fires broke out. The sky above the port of Kobe was crimson with flames.

Japan lies near the meeting of 3 Continental plates, vast regions of crust floated like a skin on fluid rock beneath. Energy builds up when the plates slide underneath each other, causing earthquakes to occur.

### CRITICISM

Following the earthquake there was a growing criticism over the slow start in helping earthquake victims. Kobe residents said that the lack of preparation made it hard to cope with the disaster.

Many people asked questions about the devastating effect of the earthquake. Japan was proud of its ability to minimise the effects of earthquakes. Why was there so much destruction?

# The Kobe Earthquake

## RECORDING SHEET



### 1. FACTS

- When? (time, day, month, year)

\_\_\_\_\_

- How long did it last for?

\_\_\_\_\_

- What was the Richter Scale rating?

\_\_\_\_\_

- Population of Kobe?

\_\_\_\_\_

- When was the last serious earthquake to hit Kobe?

\_\_\_\_\_

- What was the Richter Scale rating?

\_\_\_\_\_

### 2. EFFECTS

HOW MANY?	
People killed	
People injured	
Buildings destroyed	
Buildings damaged	

### 3. PROBLEMS RESIDENTS FACED:

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

4. **THE DAMAGED HOUSES WERE WITHOUT:**

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_

5. **FIRES**

How many?

\_\_\_\_\_

Why were they difficult to control?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. **WHY DO EARTHQUAKES HIT JAPAN?**

Japan lies near the meeting of \_\_\_\_\_

\_\_\_\_\_ vast regions of \_\_\_\_\_

that float like fluid \_\_\_\_\_ beneath.

7. **STRATEGIES TO HELP COPE WITH EARTHQUAKES**

- Money for

\_\_\_\_\_

\_\_\_\_\_

- Research

\_\_\_\_\_

▪ \_\_\_\_\_

8. **CRITISISM**

What was the criticism of the rescue programme?

\_\_\_\_\_

\_\_\_\_\_

## The Kobe Earthquake



Use the words in the box below to complete this text:

In 1995 an \_\_\_\_\_ struck Japan. It \_\_\_\_\_ the area of Kobe where 7000 people were injured. The earthquake struck early in the morning when many people were still asleep. If the earthquake had struck during a busy time the \_\_\_\_\_ would have been much higher.

It is possible to measure the strength of an earthquake using a system called the \_\_\_\_\_. The earthquake \_\_\_\_\_ over 10,000 buildings. Many buildings were completely destroyed by the fire that broke out after the earthquake.

Japan lies near the meeting of the 3 \_\_\_\_\_, large areas of \_\_\_\_\_ that float on fluid rock. When the plates slide under each other \_\_\_\_\_ causing earthquakes to occur.

crust	devastated	death toll	earthquake	destroyed
energy builds	Richter Scale	continental plates		

## The Kobe Earthquake



### EYEWITNESS ACCOUNTS

1. "I felt like I was being thrown into a deep pit like hell," said one resident near Kobe.
2. Michael Miller, Dean of Kobe Institute, said "It was so big. It was a terrible shaking. The city exploded in flames in front of us".
3. Mrs Nishikawa, 59, spent the first night in a park with her husband, daughter and about 50 other people. She said, "We have just been left alone here and forgotten".
4. Mr Yamaha said, "We were told that clouds of petroleum gas had been gathering and we should stay outdoors".
5. Mr George Gibbons, "I was woken by a tremendous shaking and a sudden bang. I was hit on the head by a geisha doll in a glass case".
6. Mr Kawasaki said, "The room shook like jelly. It was terrifying".

### EXTENSION

Read the Eyewitness Accounts. Choose 3 accounts that you think convey the horror of the earthquake and discuss with a partner.

See if any of the Eyewitness Accounts are similar to the ones in the link below:

<http://www.sln.org.uk/geography/7-11kobe.htm>

<http://www.georesources.co.uk/kobehigh.htm>

[http://news.bbc.co.uk/onthisday/hi/dates/stories/january/17/newsid\\_3375000/3375733.stm](http://news.bbc.co.uk/onthisday/hi/dates/stories/january/17/newsid_3375000/3375733.stm)

[http://en.wikipedia.org/wiki/Great\\_Hanshin\\_earthquake](http://en.wikipedia.org/wiki/Great_Hanshin_earthquake)