

UNIT 10

Natural phenomena

What do you think the natural phenomenon in each picture might be?



Are these natural disasters or are they caused by man?

Complete the table with an example of a phenomenon in each then compare your answers with the class.

International

National

Personal

--	--	--

Topic

Natural phenomena

Grammar

Using Modal Verbs referring to past time (Perfect simple and continuous)

Reading Skills

Looking for implied information
Reading for detail

Listening Skills

Listening for sequence of events

Writing skills

Writing about an imaginary situation

Functions

Degrees of possibility and probability; deduction

Vocabulary

Natural disasters; safety; stereotypes
Natural phenomena, noun formation, similes

Strategies: *When I speak, I ...*

- can memorise phrases and expressions
- am not afraid to make a mistake
- can listen carefully to others
- try to use collocations and similes

Lesson 1

AIMS

- To use Modal verbs + have + past participle to express deduction and degrees of probability in the past.

Lead-in

Task 1

Look at each of the pictures 1-6 below and describe each one.

Task 2

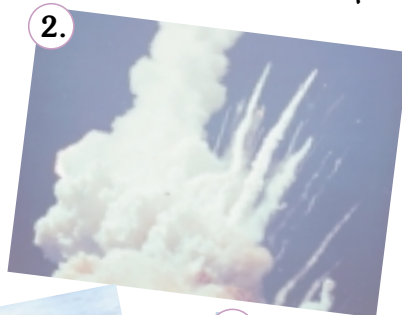
In pairs, match the verbs *must be*, *can't be*, *might be* with an adjective (*dangerous, crazy, terrible, frightening, scary, exciting*) to make a statement about each picture.



Task 3

What do you think might have happened in each of the pictures below?

Example: There might have been a volcanic eruption.



Which of the pictures above isn't about a natural phenomenon?

Task 4

Look at the pictures and say what you think might have been happening before each catastrophe happened. Compare your answers with your partner.

Task 5

Write a statement about any of the pictures to say what the people should/ shouldn't or could/ couldn't have done.

.....

.....

.....

.....



Such things happen all the time!



Grammar - Modal verbs



Task 1

A. Read the following statements and underline the verb phrases which refer to a past time.

- | | |
|--------------------------------|-------------------------------------|
| i) a) It might be a cart. | b) It might have come from Pompeii. |
| ii) a) It must be raining. | b) It must have been raining. |
| iii) a) It can't be dangerous. | b) It can't have been dangerous. |



B. Which sentence expresses more certainty? In what way are the sentences in ii) different in meaning from those in iii)?

Task 2

Look at the pictures and guess what they might be. Then say in which picture it might have been raining? Compare your answers with your partner. Justify your answers.



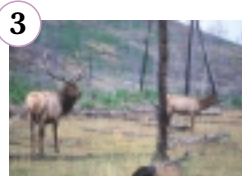
1



2



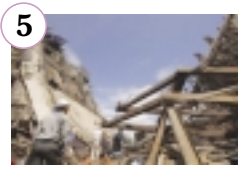
3



4



5



Task 3

Read the following statements and decide which explanation best matches: A, B, C or D. Then compare your answers with your partner.

- | | |
|---|-------------------------------|
| 1. It was 8 o'clock so people can't have been sleeping. | A. it is very likely |
| 2. The fire must have started in the forest. | B. it is almost 100% unlikely |
| 3. The sailors should have checked the doors. | C. it is almost 100% sure |
| 4. It might have happened in London. | D. it was very necessary |



Task 4

A. Complete the rule for forming the Modal verb in the past.

- i) To form a Modal verb to refer to a past situation, add + the participle of the verb.
 ii) To form a Modal verb to refer to a continuous past situation, add + + verb (-ing).

B. Complete the description of use of the modal verbs must have and can't have.

- We use when we are almost sure something did happen
 We use when we are almost sure something didn't happen.

Task 5

In pairs complete the following statements using the grammar forms above. Then compare your answers.

The captain was asleep in his cabin when the ship hit the rock.

He.....

It was in the middle of the night when the volcano erupted that night. The people

.....



Lesson 1



Reading - Task 1

What do you know about the lost world of Atlantis?

Which of the visuals might be Atlantis? Why? Read the short text below to check your answers.



Atlantis

Around 350BC Plato described Atlantis as a place that must have been very beautiful. There were palaces, harbours, temples and docks. There were spectacular buildings, fountains that had both hot and cold water, stone walls covered with precious metals and huge statues made of gold. The capital city was built on a hill and surrounded by rings of water, which were joined by tunnels large enough for a ship to sail through. A huge canal connected the outer rings of water to the ocean. On the outskirts of the capital city there were vast fields where farmers grew the city's food. The people had no warning and the city disappeared in a day and a night!

Adapted from: <http://www.kidzworld.com/article/960-history-the-lost-city-of-atlantis>

Task 2

Read the short text and then write two statements about what you think life must have been like on Atlantis:

in a building

in a harbour

in tunnels

in the fields

Task 3

Write answers to the following questions:

i) What do you think could have caused Atlantis to disappear?

ii) What do you think might have happened to Atlantis?



Reading 1

Read the title of the text and look at the picture of Pompeii in a above. What might 'THE UNWELCOME NEIGHBOUR' refer to?

'An Unwelcome Neighbour'

After many centuries of quiet, Vesuvius awoke at around noon on 24th August AD 79. At different times during the previous months there were usual signs of the forthcoming eruption and so the locals must have known that something terrible was going to happen. It is a scientific assumption that the first eruption must have happened around 1 o'clock as the marketplace was full of dead bodies. Others think that the town's inhabitants may have been expecting the danger but hadn't realised it would happen so quickly. From excavations of Pompeii and evidence found, it is obvious that the people can't have made any preparations to protect themselves from the flowing lava and burning ash. With some planning, many people could have escaped the inferno. The local authorities should have had plans ready for the evacuation of the town but they didn't pay attention to the danger. What is certain is that it all must have happened so quickly that 2,000 people couldn't have predicted that day would turn into night in a matter of seconds.

Adapted from http://www.windows.ucar.edu/tour/link=/earth/interior/Mt_Vesuvius_ad79.html&edu=high

Such things happen all the time!

Task 1

- i. Why do you think it is possible to say 'Vesuvius awoke'?
- ii. Circle a verb phrase which shows a strong possibility.
- iii. Find a verb phrase which shows that something is almost certain.
- iv. Find a verb phrase which shows that something most likely didn't happen.
- v. What signs do you imagine the people may have seen before the eruption?



Speaking & Writing



Task 2

A. Look at the artefacts that were found in Pompeii. What can you imagine about life in Pompeii in 79 AD?



B. Write a short description of how you think the people might have felt when they heard and saw the volcano erupting.



Reading 2

In pairs, read the short texts under the pictures and make comments about the people in them.



A. Just before the tsunami, tourists rent a boat to go sightseeing in Indonesia on 26/12/04.



B. A homeless man stands in New Orleans before the arrival of Hurricane Katrina on August 28, 2005.



C. A tourist stands at the top of the crater on the Bromo volcano East Java 8/06/04.

Example: The man on the volcano must have been crazy to go so near it.

Lesson 2

AIMS

- To read for detail
- To make hypotheses about the past
- To use general knowledge about a local event to discuss in English

Task 1

In pairs, read the three texts on natural disasters below and complete the table with the signs of disaster.

DISASTER	earthquake	hurricane	tsunami
SIGNS			

Warning signs are often there!

Learn to recognise them and be prepared.

A. Hurricanes

When the skies turn gloomy and begin to change colours or become very dark with hints of yellows or greens, it is time to seek shelter. The rise in ocean temperatures causes strong upper tropospheric winds to blow, as happened with hurricane Katrina in August 2007. As barometric pressure falls, and temperatures rise and stillness settles over the sea. These are all signs that a hurricane is on its way.



B. Tsunamis

Tsunamis are perhaps the most difficult to prepare for. An earthquake near water may be an indication that a tsunami will shortly follow. In a coastal area where the sea suddenly draws back many survivors report a sucking sound. During the Indian Ocean tsunami of 26th December 2004, the sea withdrew and many people then went onto the exposed sea bed to investigate just before the fatal tsunami struck.



C. Earthquakes

Before the occurrence of an earthquake the subsurface temperature of the earth rises between 5 and 9 degrees Celsius. This causes negative effects on electromagnetic waves of the radio, television and telephone. Before the earthquake, mobile telephones start malfunctioning. 10 to 20 hours before the occurrence of an earthquake, animals become highly disturbed and restless. Domestic animals like cows, dogs, cats struggle against being tied up, and even turn on the owner.



Source: <http://www.unesco.org/csi/pub/papers/glimpse6.htm>

Tragedies!



Speaking

Look at the picture. How do you suppose the boy must have felt after the earthquake? How could people have helped him to feel better?

Read the bullet points to check your ideas and then decide on a heading from A-C for the points.

- Difficulty sleeping
- Difficulty maintaining balance in life
- Limited attention span
- Disorientation or confusion
- Depression, sadness
- Guilt

B. Recognize Signs of Disaster Related Stress

C. Understand Disaster Events

A. Ways to ease Disaster-Related Stress



Task 1

In pairs, read the points and think about the different problems that might have caused the stress. Then think about the different signs of stress and ways to overcome stress to help you complete the table. [Source: http://www.fema.gov/rebuild/recover/cope.shtm](http://www.fema.gov/rebuild/recover/cope.shtm)

SIGNS OF STRESS	CAUSES OF STRESS	WAYS TO OVERCOME STRESS
Difficulty sleeping		
Difficulty maintaining balance in life		
Limited attention span		
Disorientation or confusion		
Depression, sadness		
Guilt		

Task 2

A. Look at the completed box and in pairs discuss your ideas about each point. Do you think they would have been useful for people who suffered in the fires in the Peloponnese in the summer of 2007? Why? Why not?

B. Word Formation

Make new words from the words in CAPITALS to complete the statements.

- DESTROY Fires cause of villages in Peloponnese
- ERUPT New of Mt St. Helen's.
- EXPLODE Causes discovered for the on Challenger in 1986.
- EVACUATE Floods result in the of village.
- PROTECT Locals need greater against hurricanes.
- ATTEND Children are urged to pay to safety measures.
- ASSUME The latest is that earthquake will strike soon.



Lesson 2



Listening 1 - Pre-listening

With your partner write down the names of any ships you might have heard of that sunk. Compare your answers.

NAME	YEAR	SEA



Look at the picture of this ship. What do you think has happened? Do you know the name of this ship? What else do you know about this disaster? Discuss in pairs.

Task 1

- A. How might the passengers have been feeling?
- B. What might the passengers have been doing when the ship started to sink? How might they have been feeling?

Task 2

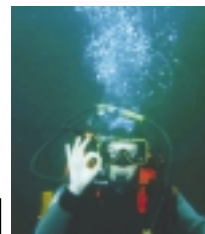
Listen to the seven comments from rescue workers and survivors on that night. In pairs, use the phrases a-g to match a comment for each situation 1-7 to how they felt when the accident happened.

- | | |
|---|--|
| a. you must have been scared to death | e. they shouldn't have been watching TV |
| b. you should have stayed with your group | f. he might have been looking at the wrong chart |
| c. you could have drowned | g. he can't have been sleeping |
| d. they should have been helping everyone | |



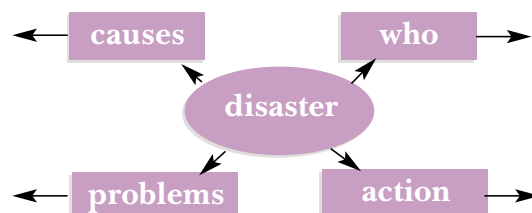
Listening 2

Listen to the radio report on the accident and write a number in the box beside each picture as you hear it on the tape.



Task

Listen to the radio report again and complete the spidergram with the missing information:



Tragedies!



Writing

Use the information in *Listening 2* and the information from the Greek newspaper below to make a report about what happened. Include what you think might have happened to cause the accident and what the captain and crew should have done or could have done to save the ship.

Με εργασίες απορρύπανσης γιόρτασαν, χθες, στη Θήρα την Ημέρα Περιβάλλοντος. Στις νότιες περιοχές της Καλντέρας εντοπίζεται η ρύπανση. «Αν και συμπληρώνονται δύο μήνες, δεν έχει παρουσιαστεί ακόμα κανένα σχέδιο άντλησης», λέει ο δήμαρχος του νησιού.



Role-play

The sinking of the *Titanic* was one of the greatest disasters ever. One of the survivors gave an interview to a journalist after the disaster. Look at the situations he describes below and the comments made by the Interviewer. In pairs, take turns and use the information below to make short dialogues and play the roles of the survivor and the interviewer. Look at the example.

The ship was eleven storeys high.

It must have been amazing.

Survivor

Situation

- We were on the bottom deck and water was coming in fast.
- The sea was icy cold.
- The captain knew about the icebergs.
- He didn't read the weather report.
- Everyone was going about their daily life as normal.
- We knew there were few lifeboats.
- In the end I found my mother alive.
- Researchers found children sitting at a kitchen table.
- The crew knew the weather was going to be bad soon.
- A boy was stuck up on a ladder for hours.



Interviewer

Comment

- He shouldn't have been climbing alone.
- You can't have felt very safe.
- He might have forgotten.
- You must have been freezing.
- They must have been having lunch.
- You must have felt pleased.
- That must have been very frightening.
- They should have left days earlier.
- They can't have known it would happen so suddenly.
- He could have slowed down.

Task

Take turns with your partner. Use *must have*, *can't have*, *should have*, *might have*, *could have* with your own ideas to suggest a reason for the following situations.

- We couldn't find our dog.
- I lost my bag.
- I can't find my pen.

- Everyone was crying.
- He didn't know what to do.
- There were lifeboats for only 700 passengers.

Lesson 3

Catastrophes

Task 1

Aesop was the first to stereotype animals. Today, his stereotypes are accepted as representative of various animals' "true" natures. Look at the pictures of the animals. How do we stereotype them?

For example, what would you say for a fox: sneaky/happy?

Complete the similes with the qualities you know about animal behaviour:

happy gentle sick busy strong stubborn wise blind slippery sneaky quiet

as as a mouse as as a bee as as a bat
 as as a fox as as an eel as as an owl
 as as a lark as as a mule as as a lamb
 as as an ox as as a dog

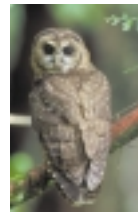


Task 2

We stereotype animals. In what way do we stereotype people?

In small groups, decide on someone you know who has the qualities of the animals. Say why.

In your group, make a list of the ways in which we stereotype people from different countries.



Western Countries

Eastern Europe

Asia

Project

What can we learn from catastrophes?

Your school is participating in an environment protection project and you have to write a report on the causes and consequences of natural disasters in your country. Use newspapers, magazines, the internet or historical data to create a list of three natural disasters that have occurred in Greece in recent years.

1. Make a list of the things that may have caused the disaster.
2. Make a list of the things that people should have done before the disaster.
3. Make a list of the new precautions that are in place to prevent such further disasters.
4. Draw a map of the location for each of the three disasters.
5. Find out the damage that the disaster caused to the environment and loss of life.
6. Find out how much money the disaster cost.
7. Find out how the disaster might have affected different people.

<http://www.lpb.org/education/classroom/itv/envirotacklebox/teacherguide/module4/4natln1.htm>



Self-evaluation

Activity A

Make a statement about each of the following situations using a Perfect Modal form with the verb in brackets.

a) Margaret was playing with matches when her parents were out. (burn)

b) Simon saw a group of boys breaking the shop window. (phone)

c) John didn't turn up for the meeting. (forget)

d) The captain hit the rocks at night. (see)

e) Xenophon's team lost the match. (angry)

___/5 points

Activity B

Write an answer for each of the following questions.

- i) Why do we stereotype a mouse as 'quiet'?
- ii) Can a bat be stubborn?
- iii) Why do we say 'busy bees'?
- iv) Do you think bats are actually blind?
- v) A 'lark' is: a cow, a sheep, a cat, a bird, a rabbit?

___/2.5 points

Activity C

Complete the headlines with a noun from the Unit.

1. Crew doesn't pay to passenger demands.

3. of the local beaches from oil spills is a must.

5. Great among passengers when ship struck iceberg.

2. Researchers looking for more about causes of disaster.

4. New in place to warn ships of the rocks.

___/2.5 points



Self-evaluation

Activity D

What are the causes of stress for people who

a) live in an area where there is a volcano

b) have to travel long distances to work each day

c) control ships and planes

d) live in a forested area

e) people who live in an earthquake zone near the sea

___/5 points

Activity D

Use the information from the texts in the Unit to explain the following:

Hours before an earthquake, domestic animals like cows, dogs, cats struggle against being tied up, and even turn on the owner.

.....
.....
.....
.....
.....
.....
.....

___/5 points

Total ___/20 points

Now tick how well you can do the following:

	With difficulty	Quite well	Easily
✓ I can make statements of deduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✓ I can compare things using similes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✓ I can understand the main story from reading newspaper headlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✓ I can infer information from visuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>