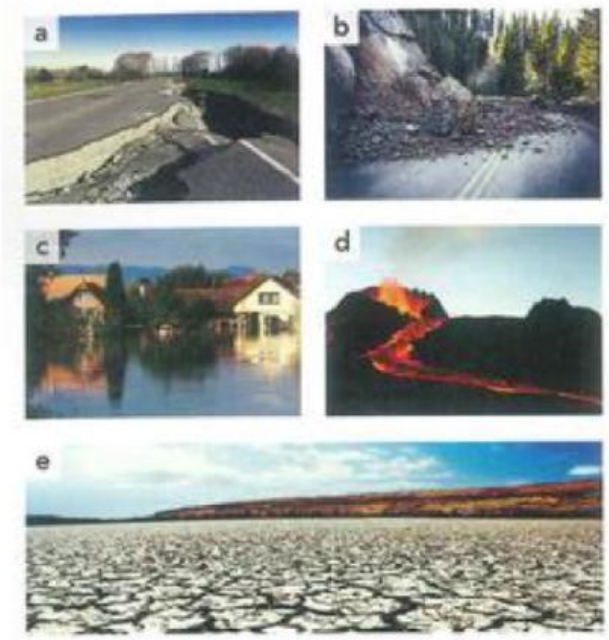
NATURAL DISASTERS

Match the photos to these words. There are five extra words.

avalanche - drought - earthquake - epidemic - flood - forest fire - hurricane - landslide - tsunami - volcanic eruption



a-

b-

c-

d-

e-

Match the extra words with these definitions.

1- a situation in which a disease spreads very quickly and infects many people.

2- a very large wave or series of waves caused when something such as an earthquake happens underwater.

3- a large amount of snow and ice that suddenly falls down a mountain.

4- a situation in which a large area with trees burns.

5- a violent storm with extremely strong winds and heavy rain.

LIVEWORKSHEETS

Words connected with natural disasters

Check the words in red in the dictionary.

A- There are hundreds of **casualties** after last night's earthquake and its **aftershock**. Many of the **victims** are young or elderly.
The **survivors** of the earthquake are camping out in the street because it is safer than being indoors. Many **injuries** have been caused by collapsing walls since the earthquake has been caused by **collapsing** walls since the earthquake has caused terrible damage to many buildings in the city.
Firefighters have been working hard to **put out** fires caused by the **tremors**.
B- First the volcano threw up a cloud of **ash**. Then **molten lava** started to come down the side of the mountain. Right now, the lave is **heading towards** the most populated village on the island. **Panic** had already been **spreading** through the village over the past few weeks. The neighbouring island has already set up camps for the hundreds of **refugees** who are arriving.
C– The **torrential** rain that has **swept across** the country in the last few days has caused terrible floods. Three major rivers have **burst their banks**. Many people have been **evacuated** from their homes. **Mud** and water have destroyed many houses. The **destruction** has been much worse in western areas where the rain has been heavier.

Complete the sentences with the correct form of words from the previous text.

1- We need to the area immediately.

2- A hurricane is quickly across the ocean.

3- Experts think the hurricane is towards land.

4- The disease is quickly. Doctors fear that thousands more people woñn catch it in the next few weeks.

5- Nothing was left after the fire, only

6- The of the earthquake are being offered food, drink and blankets at the town hall.

LIVEWORKSHEETS

Listen to three short reports on natural disasters and complete the notes.

	1	2	3
Type of disaster			
Where			
Casualties			
Damage			

READING

TSUNAMI!

A 21st century survival solution

The 2011 Tohoku earthquake and the tsunami that followed count as one of the worst natural disasters of the 21st century. When the earthquake struck with a force of magnitude 9, it was the most powerful ever to hit Japan and its consequences were catastrophic. **In anticipation of** a similar disaster, an American company called Survival Capsules LLC turned their design for a sphere to protect people from both fire and flood into reality.

"... the tsunami was a terrible learning experience for the Japanese."

According to Julian Sharpe, president of Survival Capsules LLC, the tsunami was a terrible learning experience for the Japanese. The different regions had evacuation towers and the local population knew what to do in case of a tsunami. But in the end the evacuation towers that they relied on for survival turned out to be far too low. The tsunami was much higher than expected, with a maximum height of just over 40 metres. It resulted in nearly 16,000 deaths, over 6,000 casualties, and more than 2,500 people missing.

Sharpe says he came up with the initial concept for the Survival Capsule while on holiday with his family in a coastal town in Oregon in the US in 2004. While he was there, he couldn't help thinking about the tsunami that had just swept across the Indian Ocean and the East Indies. He noticed that many coastal areas with beaches have a similar landscape, with long, gradual slopes. Even when residents are given a tsunami alert, it's impossible to get to sufficiently high ground fast enough.

That was when Sharpe came up with the idea of something more flexible. He thought of capsules that could float above the approaching wave. According to Sharpe, his personal safety system (PSS) is designed to protect survivors not only in tsunamis, but also in hurricanes, earthquakes and tornadoes. It was designed by aircraft engineers in consultation with tsunami experts.

LIVEWORKSHEETS

There are currently five versions of the capsule. They **range in size** from a basic two-person model with a diameter of 1.4m to one capable of holding ten adults. The capsules have been built for use in homes, businesses, schools and airports. The brightly-painted spherical capsule is built to survive impacts, and the shape allows it to roll out from beneath the debris of collapsed buildings. The capsules can also be made with one or two windows.

Mobile phone use is possible, to communicate with the outside world.

Access to the capsule is by a round door that can be opened from inside or outside. Inside, there are seats, water containers, GPS equipment, **storage facilities** for food and 60 minutes of oxygen. Mobile phone use is possible, to communicate with the outside world. The capsule weighs only about 136kg, so it's easy to move. It has a handle so that it can be recovered by a crane or helicopter. Optional extras are also offered, including a toilet, a music system and solar panels.

The idea is for capsules to be placed along coastlines. If the sea rises, the line tying the capsule to the ground gets longer. When the water recedes, the capsule floats back to the ground. If the water gets too deep, the line disconnects and the capsule floats to the surface.

The current cost of the spheres is between $13,000 and $20,000. This is a small price to pay if, as Sharpe hopes, the Survival Capsules increase people's chances of surviving the next tsunami.

Read and choose the correct option

1-What was the magnitude of the earthquake that struck Japan in 2011?

- A) Magnitude 7.5
- B) Magnitude 8.0
- C) Magnitude 9.0
- D) Magnitude 10.0

2-According to Julian Sharpe, why did the evacuation towers fail during the tsunami?

- A) People didn't know where they were located.
- B) They turned out to be far too low because the wave was over 40 metres high.
- C) They collapsed due to the initial earthquake.
- D) They were locked when the water arrived.

3-Where did Julian Sharpe get the initial idea for the Survival Capsule?

- A) While watching a documentary in Japan.
- B) While on holiday in a coastal town in Oregon, USA, in 2004.
- C) During an engineering conference in the Indian Ocean.
- D) While testing a boat in the East Indies.

4-Besides tsunamis, what other natural disasters is the Personal Safety System (PSS) designed to protect against?

- A) Volcanic eruptions and floods only.
- B) Wildfires and blizzards.
- C) Hurricanes, earthquakes, and tornadoes.

LIVEWORKSHEETS

- D) Meteor impacts and landslides.

5-What is mentioned regarding communication inside the capsule?

- A) No electronic devices are allowed inside.
- B) Only a built-in radio can be used.
- C) Mobile phone use is possible to communicate with the outside world.
- D) Satellite phones are the only option available.

Mark each statement as **True (T)** or **False (F)** according to the text:

1. The capsules range in size from a basic two-person model to one capable of holding ten adults. **(___)**
2. The capsule weighs about 500kg, which makes it very difficult to move without heavy machinery. **(___)**
3. Inside the capsule, occupants have access to seats, water containers, GPS equipment, and 60 minutes of oxygen. **(___)**
4. The current cost of the spheres is between $5,000 and $8,000. **(___)**

LIVEWORKSHEETS