

Living in the shadow of Italy's volcanoes

Pay close attention to the film, can you spot the answers to the questions below?

Introduction

1. What are the names of the two famous volcanoes in the Bay of Naples and Sicily?

Mount Vesuvius

2. Draw an outline sketch of Mount Vesuvius. Label the volcano, the crater and the vineyards at the base.



3. How many people live in Naples?
4. According to the official evacuation plan, how many people will be evacuated if Vesuvius threatens an eruption?
5. Why would such an evacuation be a challenge?
6. Outline the characteristics and effects of the eruption of Mount Vesuvius in AD79.
7. Explain the formation of Mount Vesuvius.
8. Describe the crater of Mount Vesuvius.
9. What are the temperatures in the crater?

10. When did the volcano last erupt and what happened?
11. Mount Vesuvius is carefully monitored by scientists. What are scientists measuring here?
12. How deep is the magma chamber beneath Mount Vesuvius?
13. Suggest why earthquakes indicate that magma may be rising beneath the volcano?

Napoli Sotterranea

14. How deep are the tunnels beneath Naples?
15. Why were the tunnels dug by the Greeks and then extended by the Romans?
16. The volcanic rock (tuff) was erupted 12,000 years ago from the nearby Campi Flegrei volcanic area to the west of the city. Why is this relevant to people living in Naples?

Solfatara and the Campi Flegrei

17. Describe Solfatara crater. How does it compare with Vesuvius?
18. What is the evidence that the area is still volcanically active?
19. In the past, minerals such as sulphur, realgar and alum have been mined from the crater. Why were these minerals valuable?
20. Why does a boulder produce a loud 'boom' when dropped onto the crater's floor?

21. Apart from Solfatara, what are the other volcanic features in the Cami Flegrei volcanic area?

22. Describe and suggest reasons for the land use around the edge of the crater lake, Lago d'Averno.

23. When was Monte Nuovo formed?

Pozzuoli

24. Parts of Pozzuoli show clear evidence of tectonic rising and falling of the land – a process called bradyseism. It results from the filling and emptying of a magma chamber deep underground. Describe the evidence of bradyseism in Pozzuoli.

Vineyard – Cantina del Vesuvio

25. Why are there vineyards on the flanks of Mount Vesuvius, an active volcano?

26. What is the purpose of the roses grown at the end of each row of vines?

Sicily: Mount Etna

27. Why are eruptions of Mount Etna less violent than those of Mount Vesuvius?

28. Describe the effects of the 2002 eruption of Mount Etna.

29. What are the special design features of the new shops that have been constructed in the area destroyed by the eruption?

30. During the eruption in March 2017, a small explosion occurred beneath one of the lava flows. Describe what happened to the guide Giuseppe Barbagallo

31. What was the temperature of the lava when it was erupted from the volcano in March 2017?

32. What is a lava tube and how is it formed?

The 1981 eruption of Mount Etna and the Fattorie Romeo Del Castello

33. How did scientists attempt to divert the 1983 lava flow? Was it successful?

34. Which small town was threatened by the eruption of 1981?

35. Describe the route of the 1981 lava flow.

36. What were the impacts of the lava flow?

37. Why were the owners of the Fattorie Romeo Del Castello concerned about the lava flow?

38. Why was this not a typical eruption?

39. How hot was the lava and how fast did it flow?

Alcantara Gorge

40. Describe the Alcantara Gorge.

41. How was the gorge formed?

42. Name the two active volcanic islands in the Aeolian Islands.

43. Complete the gaps in the following sentence.

'The Aeolian Islands form a volcanic _____ arc at the _____
plate margin between the _____ plate and the _____ plate. They
have been formed over a period of _____.'

44. Describe the shape of the crater at Gran Cratere.

45. What is used to look for temperature changes in Gran Cratere?

46. Why is Vulcano popular with tourists?

Museo Vulcanologica dell'Etna, Nicolosi, Sicily

47. What information is displayed in the museum?

48. Why did scientists think the volcano was about to erupt?



Conclusion: Living in the shadow of Italy's volcanoes

49. Summarise the hazards associated with volcanoes in Italy by completing the table below.

Volcano	Hazards and impacts
Mount Vesuvius/Campi Flegrei	
Mount Etna	
Vulcano	

50. Summarise some of the benefits associated with Italy's volcanoes by completing the table below.

Volcano	Benefits
Mount Vesuvius/Campi Flegrei	
Mount Etna	
Vulcano	