

**The total of all marks is 40.**

**Good luck!**

### **Topic 1: Hazardous Earth**

**Study Figure 1, which shows a plate boundary along the west coast of South America.**

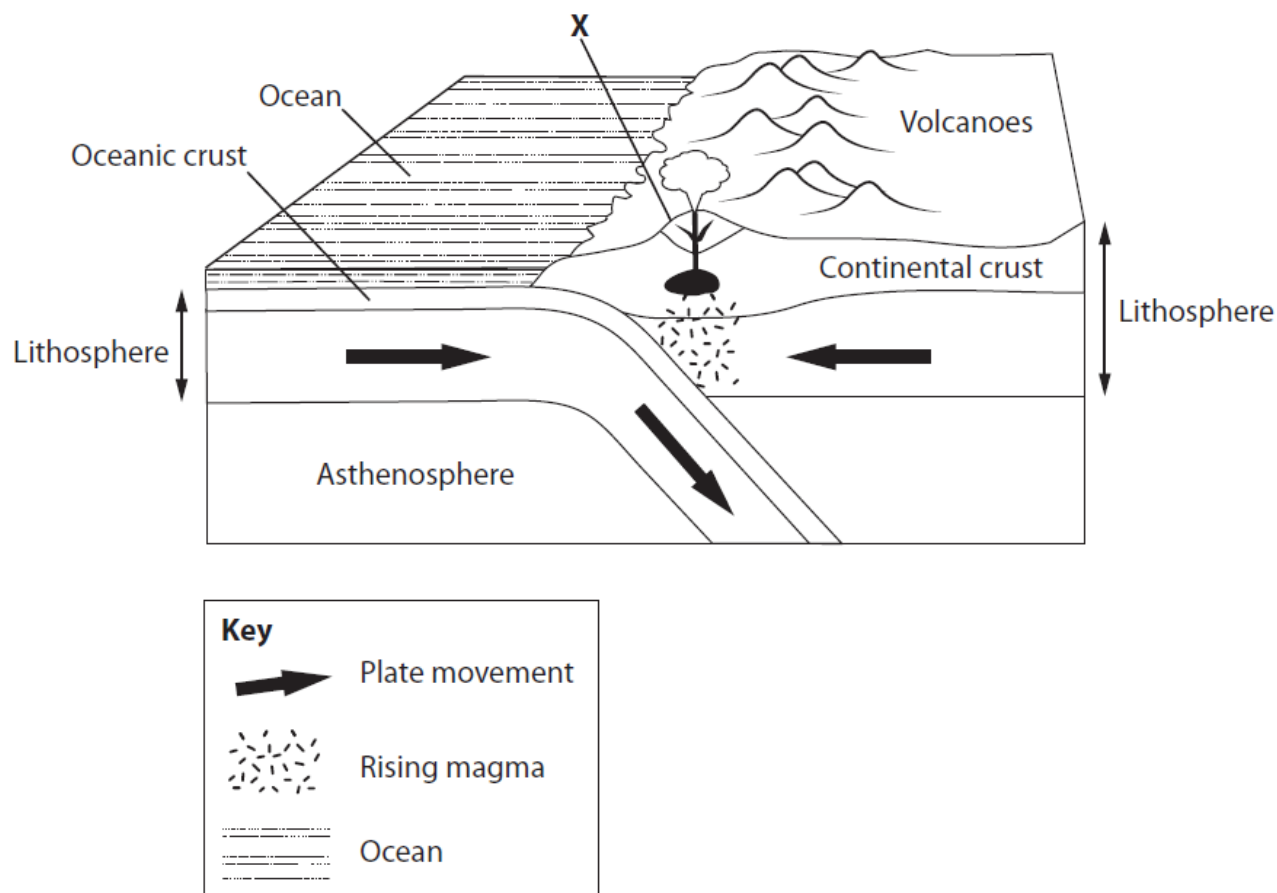


Figure 1

**Identify the type of plate tectonic feature shown. (max 1 mark)**

- A) A divergent boundary
- B) A hotspot
- C) A convergent boundary
- D) A dense oceanic plate converges with a less dense continental plate

**Explain one cause of tectonic plate movement. (max 3 marks)**

Your Answer

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**Study Figure 2, which shows the area of ice in the Arctic Ocean each spring between 1978 and 2018.**

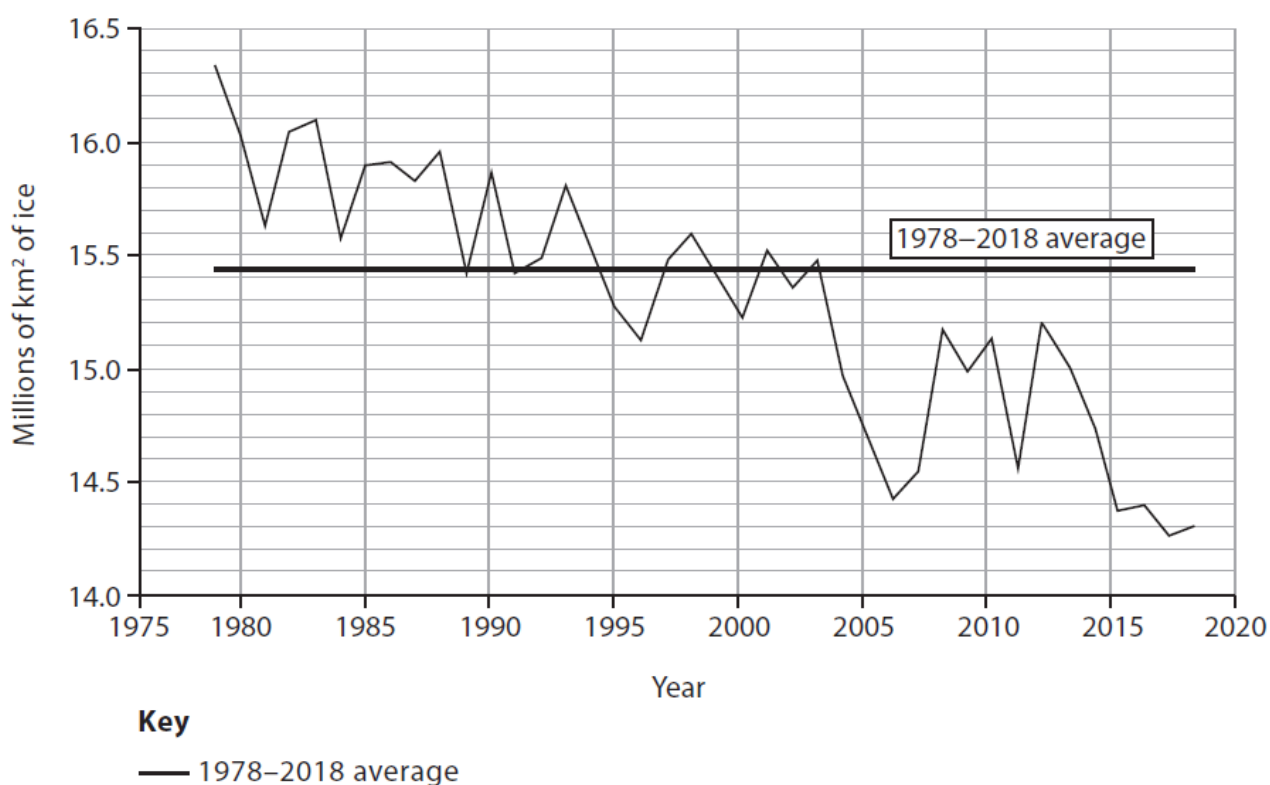


Figure 2

**Describe the trend in the area of Arctic ice between 1978 and 2018. Use data in your answer. (max 3 marks)**

Your Answer

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**Identify one reason for the changing area of Arctic ice shown in Figure 2. (max 1 mark)**

Your Answer

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**Explain two ways in which changes in the area of Arctic ice may have consequences for people. (max 4 marks)**

Your Answer

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**Explain one piece of evidence of natural climate change. (max 2 marks)**

Your Answer

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**Study Figure 3, which shows sources of greenhouse gas emissions in the European Union for 1990 and 2018.**

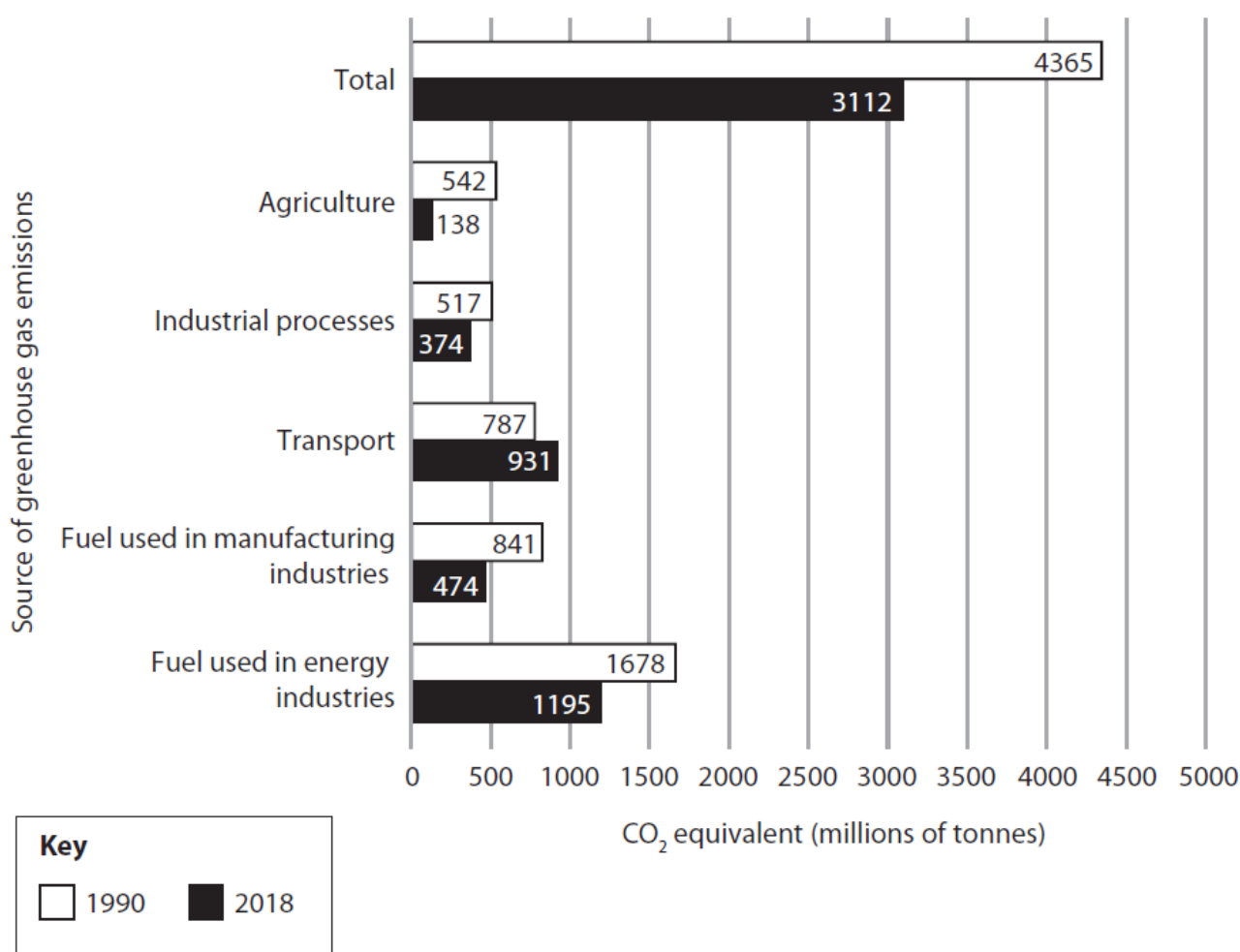


Figure 3

**Calculate the percentage decrease in total emissions (CO<sub>2</sub> equivalent) between 1990 and 2018. Give your answer to one decimal place. Show your working below. (*max 2 marks*)**

Your Answer

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**Explain two reasons why tropical cyclones lose their energy. (*max 4 marks*)**

Your Answer

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## Topic 2: Energy Resource Management

**Identify the correct definition of the term fracking. (max 1 mark)**

- A) Injection of liquid under pressure to release trapped gas in rocks
- B) Planting of trees and crops that will be used for fuel
- C) Cutting down trees and using them for fuelwood
- D) Polluting rivers with the waste from coal and oil extraction

**State one reason why energy resources require sustainable management. (max 1 mark)**

Your Answer

**Study Figure 4. State one possible reason why some people were against the development of wind power at this site. Use evidence from Figure 4 in your answer. (max 1 mark)**



Figure 4. Wind turbines at Westermeerdijk in the Netherlands, a developed country

Your Answer

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**Explain one advantage of using wind power to generate electricity. (max 4 marks)**

Your Answer

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**Study Figure 5. Identify the percentage of renewables in Germany's energy mix. (max 1 mark)**

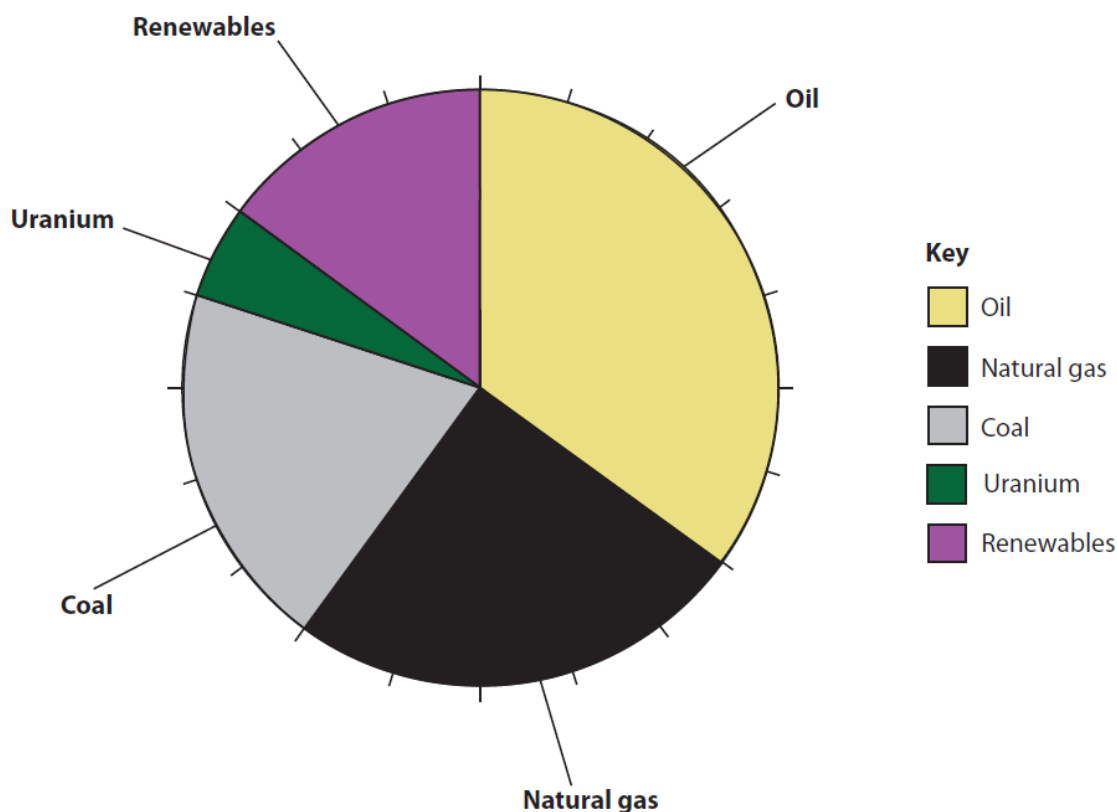


Figure 5. Percentage (%) of energy resources in  
Germany's energy consumption, 2018

- A) 5%
- B) 15%
- C) 20%
- D) 25%

**Germany's total energy consumption in 2018 was 324 million tonnes of oil equivalent (Mtoe). Calculate the amount of energy consumption that was oil in 2018. You must show your working in the space below. Write your answer to one decimal place. (max 2 marks)**

Your Answer

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**Suggest one reason why uranium has the lowest percentage in Figure 5. (max 2 marks)**

Your Answer

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**changed over the past 100 years. (max 8 marks)**

## Your Answer

[illegible]