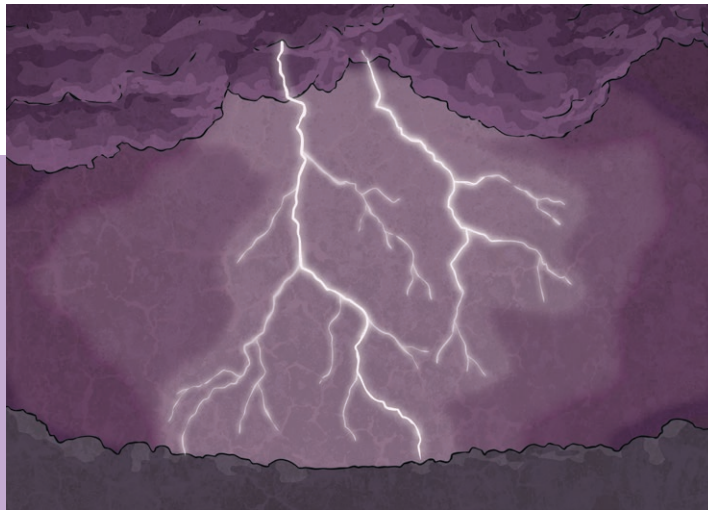
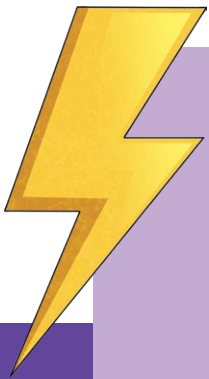


The Speed of Sound

11 If you have ever seen a flash of lightning then waited
18 for the thunderclap shortly afterwards, you are
24 witnessing light travelling faster than sound.

34 Thunder sounds are produced at the same time as a
44 lightning bolt but the sound of thunder takes longer to
52 reach us than the sight of the lightning.

61 The exact speed of sound depends on the temperature
69 and what the sound is travelling through. Sound
78 travels faster through solids and liquids. This is because
90 the particles in a gas are further apart. In air at a
100 temperature of 20°C, sound travels at a speed of around
104 343 metres per second.



Questions



1. Why does sound travel slower through gases than through solids or liquids?



2. **Thunder sounds are produced at the same time as a lightning bolt...**

Write a word or phrase which means the same as 'produced' in this sentence.



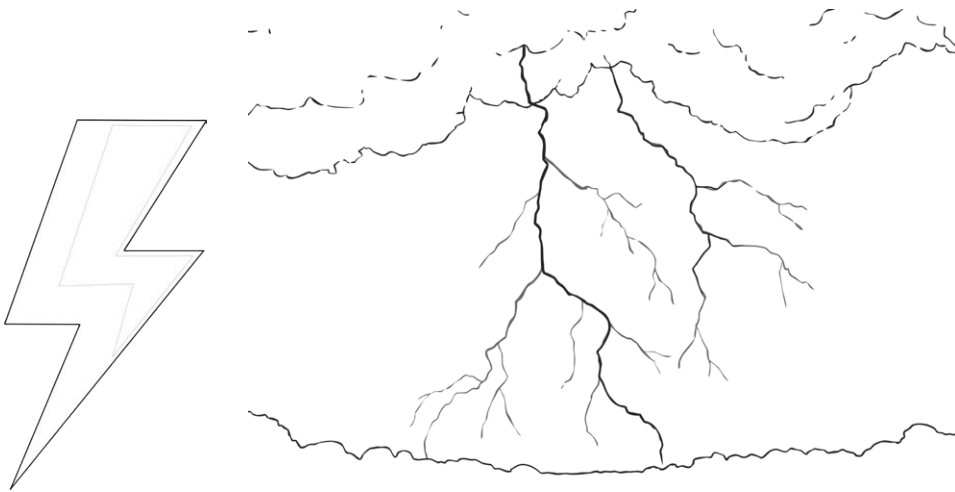
3. What is the effect of the first sentence on the reader?



4. What is the purpose of this text?

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Questions



1. Why does sound travel slower through gases than through solids or liquids?

Sound travels slower through gases than through solids or liquids because the particles are further apart.



2. **Thunder sounds are produced at the same time as a lightning bolt...**

Write a word or phrase which means the same as 'produced' in this sentence.

Accept any suitable answer, such as: made; given off; created; emitted.



3. What is the effect of the first sentence on the reader?

Pupils' own responses, such as: The first sentence draws the reader into the text by asking if you have ever seen lightning before hearing thunder. This is a familiar experience so you are interested straight away.



4. What is the purpose of this text?

Pupils' own responses, such as: The purpose of this text is to provide information about the speed of sound.