

Unit 2.6 Data Representation

Lesson 4 – Sound

MCQS

The numbers after the question are an approximate estimation of relative difficulty, broadly based around the new GCSE Numbering System. Please note that these were produced before final guidance was released regarding levels of difficulty and as such should be used as a rough guide only.

Question 1: What unit is sample rate measured in? (1-4)	✓
Bits per second (bps)	
Hertz (Hz)	
Megabits per second (Mbps)	
Question 2: Which of the following is not true if you increase the sample rate? (3-6)	✓
Better quality of recording	
Needs greater storage space	
larger file size	
Decrease in quality	
Question 3: What is meant by bit depth? (3-6)	✓
The number of samples taken per second	
The amplitude of each sample	
The number of bits used per second of audio	
The number of bits used to store each sound sample	
Question 4: Which of the following is true if you decrease the bit rate? (3-6)	✓
File size increases	
Sound quality increases	
Sound quality decreases	
Number of sound samples taken per second increases	
Question 5: What is measured when the wave is sampled? (3-6)	✓
Amplitude	
Hertz	
Bit rate	
Frequency	
Question 6: What sample rate is used for CD quality sound? (6-8)	✓
44,100 Hz	
88,200 Hz	
22,100 Hz	
Question 7: The purpose of a Digital to Analogue converter is to... (6-8)	✓
convert binary data into analogue form so we can hear it via a speaker	
convert sound waves into binary so it can be understood by a computer	

MCQS

Question 8: What piece of hardware would you use to input sound into a computer? (1-3)		✓
Speaker		
Analogue to digital converter		
Microphone		
Digital to analogue converter		
Question 9: If you increase the bit depth of an audio file then you increase the quality? (1-4)		✓
True		
False		
Question 10: The amplitude of a sound wave is... (6-9)		✓
how high the wave is from the crest or trough		
the frequency at which it is sampled		
the speed at which it travels through air		

Unit 2.6 Data Representation

Lesson 4 – Sound

MCQS ANSWERS

Question 1: What unit is sample rate measured in? (1-4)	✓
Bits per second (bps)	
Hertz (Hz)	✓
Megabits per second (Mbps)	
Question 2: Which of the following is not true if you increase the sample rate? (3-6)	✓
Better quality of recording	
Needs greater storage space	
larger file size	
Decrease in quality	✓
Question 3: What is meant by bit depth? (3-6)	✓
The number of samples taken per second	
The amplitude of each sample	
The number of bits used per second of audio	
The number of bits used to store each sound sample	✓
Question 4: Which of the following is true if you decrease the bit rate? (3-6)	✓
File size increases	
Sound quality increases	
Sound quality decreases	✓
Number of sound samples taken per second increases	
Question 5: What is measured when the wave is sampled? (3-6)	✓
Amplitude	✓
Hertz	
Bit rate	
Frequency	
Question 6: What sample rate is used for CD quality sound? (6-8)	✓
44,100 Hz	✓
88,200 Hz	
22,100 Hz	
Question 7: The purpose of a Digital to Analogue converter is to... (6-8)	✓
convert binary data into analogue form so we can hear it via a speaker	✓
convert sound waves into binary so it can be understood by a computer	
Question 8: What piece of hardware would you use to input sound into a computer? (1-3)	✓
Speaker	
Analogue to digital converter	
Microphone	✓
Digital to analogue converter	

MCQS ANSWERS

Question 9: If you increase the bit depth of an audio file then you increase the quality? (1-4)		✓
True		✓
False		
Question 10: The amplitude of a sound wave is... (6-9)		✓
how high the wave is from the crest or trough		✓
the frequency at which it is sampled		
the speed at which it travels through air		

We'd like to know your view on the resources we produce. By clicking on '[Like](#)' or '[Dislike](#)' you can help us to ensure that our resources work for you. When the email template pops up please add additional comments if you wish and then just click 'Send'. Thank you.

If you do not currently offer this OCR qualification but would like to do so, please complete the Expression of Interest Form which can be found here: www.ocr.org.uk/expression-of-interest

OCR Resources: the small print

OCR's resources are provided to support the teaching of OCR specifications, but in no way constitute an endorsed teaching method that is required by the Board and the decision to use them lies with the individual teacher. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources. We update our resources on a regular basis, so please check the OCR website to ensure you have the most up to date version.

© OCR 2016 - This resource may be freely copied and distributed, as long as the OCR logo and this message remain intact and OCR is acknowledged as the originator of this work.

OCR acknowledges the use of the following content: n/a

Please get in touch if you want to discuss the accessibility of resources we offer to support delivery of our qualifications: resources.feedback@ocr.org.uk