

For each lesson please follow the link to Oak National Academy and watch the video, complete any worksheets and exit quiz.

Year 8

Week 1 – SCIENCE- Sound Waves

JOURNEYS

Journey; a passage through life, changing and developing over time.

Life is a journey filled with lessons, hardships, heartaches, joys, celebrations and special moments. Enjoy the ride, not just the destination. Cherish each time and don't wish it away.

Monday

Lesson 1 – Sound Waves

This lesson looks at the causes of sound, how sound travels and what a sound wave from an oscilloscope trace looks like.

<https://classroom.thenational.academy/lessons/sound-waves-cdhkqc>

TASKS: -

1. Watch the video of the lesson
2. Download the worksheet and complete the tasks
3. What have you learnt? Complete the exit quiz

Tuesday

Lesson 2 – Echoes and Superposition

This lesson looks at how different surfaces can have an effect on sound, what echoes are and how they can be useful and what can happen when waves interact with each other.

<https://classroom.thenational.academy/lessons/echoes-and-superposition-74ukjt>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Wednesday

Lesson 3 – Pitch and frequency

This lesson looks at how pitch is determined by frequency and how this has an effect on wavelength. You will also learn how to interpret oscilloscope traces.

<https://classroom.thenational.academy/lesson/s/pitch-and-frequency-cgvk6c>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Thursday

Lesson 4 – Amplitude and Volume

This lesson looks at how volume is determined by amplitude and how amplitude is based on the displacement of particles. You will learn how to interpret oscilloscope traces.

<https://classroom.thenational.academy/lessons/amplitude-and-volume-60vkec>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Friday

Lesson 5 – Speed of sound

This lesson explores the speed of sound in the different states of matter and how to fully utilise the speed/distance/time equation.

<https://classroom.thenational.academy/lessons/speed-of-sound-6wr3qt>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

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Year 8

Week 2 – SCIENCE- Sound Waves

JOURNEYS

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Monday

Lesson 6 – Review (Part 1)

This lesson involves a series of recap questions, key word practise and exam-style questions to consolidate learning and improve confidence in application questions. <https://classroom.thenational.academy/lessons/review-part-1-64t64d>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Tuesday

Lesson 7 – The Ear

This lesson explores how we hear highlighting the role of the various structures within the ear.

<https://classroom.thenational.academy/lessons/the-ear-cmv3gt>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Wednesday

Lesson 8 – Hearing ranges and ultrasound

This lesson explores the hearing range of a variety of organisms, what ultrasound is and its uses.

<https://classroom.thenational.academy/lessons/hearing-ranges-and-ultrasound-crrkcr>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Thursday

Lesson 9 – Sound devices

This lesson looks at how microphones are used to convert sound waves into electrical current and how the opposite is true for loudspeakers.

<https://classroom.thenational.academy/lessons/sound-devices-61h36t>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Friday

Lesson 10 – Case study of James West

This lesson focuses on the integral role Dr James West had on the development of the electret microphone.

<https://classroom.thenational.academy/lessons/case-study-of-james-west-60w68d>

Lesson 11 – Review (Part 2)

This lesson involves a series of recap questions, key word practise and exam-style questions to consolidate learning and improve confidence in application questions.

<https://classroom.thenational.academy/lessons/review-part-2-6cr66t>

TASKS: -

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz