

Superbugs: Join the Fight Delivery Guide - Ages 7-11

This programme is initiated and funded by Pfizer.

Lesson summary:

Pfizer's 'Superbugs: Join the Fight!' education programme has a goal; that is for young people to help raise awareness about stopping the spread of infectious disease and reducing the rise of superbugs.

With the coronavirus pandemic, it's never been more important to stay clean and healthy. This lesson equips learners with practical advice on hygienic practices around handwashing, maintaining a clean environment and the correct use of medicines.

Imagine a world where antibiotics don't work. Learners will be introduced to the issue of 'superbugs' and will learn about the important steps they can take to stay healthy and prevent infection. The activities support science, citizenship and PSHE/PSE/Health and wellbeing/PDMU.



Lesson Delivery

You can use this lesson in a classroom setting or for distance learning. The lesson takes around 60 to 90 minutes, plus optional extension activities. The activities can be used flexibly, according to the time you have, and could also be split over more than one lesson to allow more in-depth exploration of the issue.



Preparation and resources:

- Superbugs Presentation
- Activity Sheet 1: Superbugs Timeline
- Activity Sheet 2: Hygiene Audit
- Activity Sheet 3: Creative Communication
- Parent letter

Learning objective:

We are learning about superbugs and how to protect against them.

Learning outcomes:

I can describe how bacteria can affect health.

I can explain what is meant by 'superbugs' and why the issue is important.

I can suggest some of the ways we can reduce the spread of infection caused by bacteria and viruses.

Introduce the session

Young people will be exploring the spread of superbugs and the impact of anti-microbial resistance. Before beginning, it is important to highlight that this is a challenging topic with real-life implications, therefore it is important to respect the content within the presentation and ensure that all learners feel comfortable with covering the content within this module. It would be advised that a safe learning environment is created prior to starting the session, establishing ground rules that will enable fair discussion and sharing of facts and opinions. Some examples of ground rules could be:

'I will respect the ideas and opinions of other people.'

'I will not interrupt someone when they are sharing an opinion.'

'I will not force anyone to speak if they do not wish to.'

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Starter

Slides 2 - 3

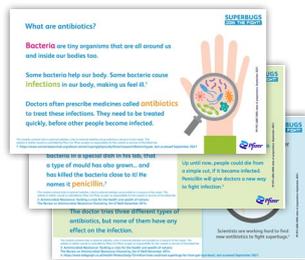


What do learners know about the terms ‘bacteria’, ‘infection’, ‘hygiene’ or ‘superbugs’? They could use Think, Pair, Share; create a mind map; or write their ideas on sticky notes and display them on a wall.

Read through the learning objective and outcomes.

Main activities

Slides 4 - 9



The development of superbugs

Young people read the information about antibiotics and the development of superbugs. Using **Activity Sheet 1**, they put the scientific events in order and then match with the correct patient story. They could also guess the year these events occurred for a challenge.

Once completed, run through the slides to check the answers and discover how the superbugs issue developed over time. Were learners surprised by any of the patient stories?

Slide 10



Superbug Spread

Learners create a diagram showing a human model of infection. They can use the example on **slide 10** to get started. Begin with one person who spreads to two others, who each spread to two more. Keep adding to the diagram, doubling the number of people who are infected each time. Why is it so important to slow down the spread of infectious diseases?

If this activity is challenging for learners, you could create the diagram together then ask them to count how many transmissions it would take before the whole class would be infected.

Slides 11 - 13



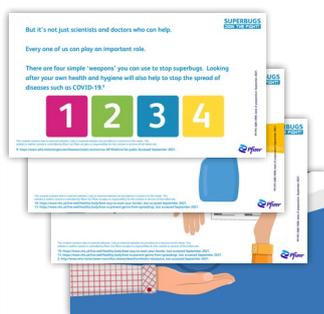
Solving the superbugs issue

Use these slides to explore what is being done to help solve the superbugs problem. Young people could share with a partner who they think is responsible for finding a solution. Thoughts could include doctors, scientists, the government, parents, yourself. See how real-life scientists are working to tackle the issue and how doctors use vaccinations to prevent diseases spreading, but that this is only part of the picture. Explain that ultimately, everyone is responsible and has a part to play.

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Main activities

Slides 14 - 24



The four 'weapons' to fight against superbugs

Read the information on the slides to learn about the four weapons in the fight against superbugs and stopping the spread of disease.

Learners use **Activity Sheet 2** to complete a Hygiene Audit of their classroom and/or home. They could use the results to come up with an agreed list of rules and practices to keep places as clean and hygienic as possible, e.g. 'I will wash my hands with soap and hot water for 20 seconds every time I go to the toilet'.

Watch the video on **slide 23** to learn more about the four weapons in the fight against superbugs.

Slide 25



Creative communication (optional extension)

Learners use **Activity Sheet 3** to plan how they would creatively communicate the message about the four weapons to an audience. How could they make their message memorable? If working in a classroom setting, learners could present their ideas to the class and vote for their favourite.

Slides 26 - 27



Plenary

Learners write down or share with a partner one thing they've learnt during this lesson that they didn't know before.

Extension/homework ideas:

- Conduct a survey about people's knowledge of superbugs, vaccination or handwashing practices.
- Hold a debate around: "Who is responsible for solving the superbugs problem?"
- Create a bathroom poster or design a school mural encouraging younger learners to wash their hands after using the toilet.
- Research the issue and write a blog article about superbugs.
- Create a 'Hygiene Map' of their day, thinking about where they go, what they do and how hygiene could be improved at each stage.

Sites for additional research:

- **BBC Own It: Health advice** <https://www.bbc.com/ownit/dont-panic/dr-radha-vs-dr-internet?collection=we-got-your-back>
- **Health for Kids information on hygiene** <https://www.healthforkids.co.uk/staying-healthy/washing-hands/>
- **Games and teaching resources about microbes and antibiotics** <http://www.e-bug.eu/>

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Curriculum links:

England

Relationships and Health Education

Health and prevention

- about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.
- the facts and science relating to allergies, immunisation and vaccination.

Citizenship

- Bacteria and viruses can affect health and that following simple, safe routines can reduce their spread.

Science

- Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.

Scotland

Health and wellbeing

- I am developing my understanding of the human body and can use this knowledge to maintain and improve my wellbeing and health. HWB 2-15a.
- I am learning to assess and manage risk, to protect myself and others, and to reduce the potential for harm when possible. HWB 2-16a.
- I understand the effect that a range of substances... can have on the body. HWB 2-38a.

Science

- The effect on the human body of some drugs.

Northern Ireland

PDMU (Personal Development and Mutual Understanding)

- Understand the benefits of a healthy lifestyle, including physical activity, healthy eating, rest and hygiene.
- Understand that bacteria and viruses affect health and that risks can decrease when basic routines are followed.

World Around Us

Learners will have opportunities to:

- Explore ways in which change occurs in the natural environment.
- Explore how people and places have changed over time.
- Explore positive and negative changes and how we have a responsibility to make an active contribution.