

# Vaccination Rates

### **Focus Questions**

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

- 1. In pairs, discuss the BTN Vaccination Rates story. What were the main points discussed?
- 2. What was the first disease people could be vaccinated against?
  - a. Chicken pox
  - b. Cow pox
  - c. Smallpox
- 3. Where does the word "vaccine" come from and what does it mean?
- 4. Name another disease that people can be vaccinated against.
- 5. There has been a global drop in people getting vaccinated. True or false?

# **Activity: Note Taking**

Students will practise their note-taking skills while watching the BTN Vaccination Rates story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was positive, negative, or interesting?



## **Activity: Class Discussion**

Discuss the information raised in the BTN Vaccination Rates story. Ask students to record what they learnt about vaccinations. What questions do students have? Use the following questions to guide the discussion:

- What is a vaccine?
- What vaccines do you know about?
- What impact have vaccines had on controlling disease?
- What is herd immunity?
- Why do you think it is important to learn about this topic?
- What questions do you have about the topic?

### **EPISODE 14**

27 May 2025

#### **KEY LEARNING**

Students will investigate how vaccines work and the impact they have had on controlling disease.

#### **CURRICULUM**

#### Science - Year 5

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives.

#### Science - Years 5 & 6

Scientific knowledge is used to solve problems and inform personal and community decisions.

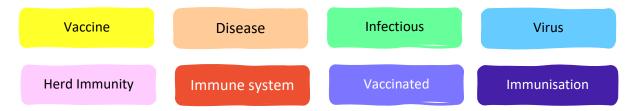
#### Science - Year 7

Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available.



### **Activity: Key words**

Students will brainstorm a list of key words that relate to the BTN Vaccination Rates story. Here are some words to get them started.



### **Activity: Vaccine Research**

In this activity students will work in groups to learn more about diseases and how vaccines have helped prevent them spreading in the community. Each group will share what they have learnt with other students.

Divide the class into groups. Each group will be assigned a different vaccine which has been developed to prevent one of these diseases (*Polio*, *MMR* (*measles*, *mumps*, *rubella*), *diphtheria*, *tetanus*, *whooping cough*, *hepatitis B or chicken pox*). Each group will need to decide how they will collect and communicate the information they find during their research.

#### Research

Each group will respond to the following questions to learn more:

- What disease does the vaccine protect against? Describe the disease. What are the symptoms? Is the disease caused by a virus or bacteria?
- Who is at most risk of getting the disease?
- What impact does the disease have on the community?
- How does it spread? (Direct or indirect contact, airborne transmission, food, water, or blood contamination.)
- When was the vaccine developed? Who developed it?
- How does the vaccine work?
- How often should a person be vaccinated?
- What impact has the vaccine had on controlling the disease worldwide?
- What are some interesting facts about the vaccine?

### Share

One student from each of the groups will form a new group to share the information they have collected. Students will make sure there is one person from each group at their table. Students will share the information they have collected and learn from one another.

#### Reflect

Students will reflect on the activity by responding to one or more of the following questions:

- What did you enjoy about this investigation?
- What did you find surprising?
- What would you do differently next time?

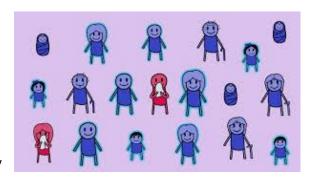
### **Further Learning**

Students match the scientist to the disease they helped prevent by playing the <u>Pioneer</u> <u>Breakthroughs matching game</u>. The History of Vaccines website also has an <u>interactive timeline</u> which highlights significant events in the history of diseases and vaccines.

# **Activity: Herd Immunity**

Students watch <u>this short YouTube video</u> (source: Royal College of Pathologists) about herd immunity then answer the following questions:

- What is herd immunity?
- What can happen if more people in the community are unvaccinated?
- Finish the following sentence: Herd immunity is especially important for people in the community who...



# **Activity: BTN Vaccine Stories**

As a class watch one or more of the following BTN stories to learn more about vaccines. After watching any one of the BTN videos ask students to respond to the discussion questions (to find the teacher resources go to the related BTN Classroom Episode and download the Episode Package).



**Epidemiology** 



What is a virus?



Polio Return



**Polio Vaccinations** 



**Vaccination Debate** 

### **Useful Websites**

- Australia's childhood vaccination rates are declining, sparking fears about risk to herd immunity –
  ABC News
- Why childhood vaccination is dropping and what we can do about it ABC News
- <u>A brief history of vaccines</u> World Health Organization