



LESSON 1 WHAT ARE MICROBES AND GERMS?

40
MINS TOTAL

Learning Intentions

This lesson will help students to understand that:

- There is an 'unseen world' of tiny microbes
- Microbes can be either good or bad, and we often describe the bad ones as germs
- Germs can cause illness

Resources

To deliver this lesson, you will need:

- Student Worksheet 1A – 1 per student

If you are delivering the full 1-hour lesson, you will also need:

- Three bowls, each containing one of the following:
 - Water
 - Anything messy and sticky, such as syrup, paint, gluestick or mud
 - Chalk (or anything less messy than the item above)

Curriculum Links

- Health & Physical Education: Personal Social and Community Health Foundation - [ACPPS003](#) / Years 1 & 2 - [ACPPS018](#)
- Supporting Outcomes Science: Science Inquiry Skills Foundation - [ACSIS014](#) / Year 1 [ACSIS037](#) / Year 2 [ACSIS037](#)

1 - SET THE SCENE

10
MINS OPTIONAL

Demonstrate

- **Select** three students and ask them to stand in a line at the front of the class
- **Ask** each volunteer to **rub** their hands in one of the three bowls you prepared beforehand, and then show their hands to the class
- **Ask** the class to **rank** the hands from **dirtiest** to **cleanest**
- **Ask** students to **explain** how they knew which hands were dirtiest
- Then **ask** the students to **imagine** that the student with the cleanest hands were to cough or spit in their hands: would this change their view on which hands are dirtiest?
- **Explain** that we cannot tell whether something is dirty or clean just by whether it looks clean



Teacher Tip

DON'T FORGET!

Make sure that all volunteers have an opportunity to properly wash and dry their hands once the demonstration is over.

2 - EXPLORE THE UNSEEN WORLD

10
MINS ESSENTIAL

Ask

- **Watch the Hygiene Quest Animation**
- Think back to the Hygiene Quest cartoon: what was wrong with the Finger Tree when the characters arrived? (**ANSWER:** It was covered in hidden germs)
- The only way to see the germs was using Chara's special phone app. Why do you think that was? (**ANSWER:** The germs were too small to see)



- › The Finger Tree looked clean after being sprayed by the water blaster but it wasn't. Why was this? (**ANSWER:** Only water was used to clean it and not soap and water for at least 20 seconds)

Explain

- › Tiny things called microbes are all around us
- › Microbes are so tiny you can only see them with a microscope
- › Many microbes are good for us and can help to keep us healthy
- › You can find good microbes in foods like yoghurt
- › But some microbes can make us sick. We call these 'germs'
- › We can pick germs up on our hands without even knowing it
- › Just because our hands look clean, that does not mean they are (remember the demonstration/Chara's special phone app? Just because we can't see it, that doesn't mean it isn't there)
- › But there is no reason to be afraid – there are lots of things we can do to protect ourselves from germs

3 - WORKSHEET 1A

10 MINS ESSENTIAL

Explain

- › **Give** each student access to a copy of **Worksheet 1A**
- › Tell students to **add a tick** underneath each **fact** on the worksheet to indicate whether they think the fact is **true or false**

Check Answers

Read through each statement with the class and **check** their answers:

- › Germs are so tiny you can only see them with a microscope (**TRUE**)
- › All microbes are bad (**FALSE:** some are good for us)
- › Germs can make you ill (**TRUE**)
- › Germs can be spread by touching things (**TRUE**)
- › Germs cannot travel through the air (**FALSE:** coughing, sneezing and breathing all release germs into the air)
- › Some germs can be spread by drinking dirty water (**TRUE**)



Teacher Tip

CONSIDER! May need scaffolding or extension for some students

4 - CHECK UNDERSTANDING

10 MINS OPTIONAL

Check Understanding

- › **Give** each student **two post-it notes** to place on the wall (this can also be done on an interactive whiteboard as a mind-map):
 1. On one post-it note, **students write one fact** they have learnt about germs
 2. On the other post-it note, students **write one question** they have about germs
- › **Praise** two or three interesting, important or impressive facts
- › **Correct** any incorrect facts
- › **Select** a few interesting or important questions and **answer** them where you can



Teacher Tip

DON'T FANCY WRITING OR DON'T HAVE POST-ITS?

Ask the students to give you the facts and questions verbally, then write them on the board for the class to see.



TRUE OR FALSE?

Do you remember Skye?

Skye is very curious and she really wants to know everything about how germs work. The only thing is, she's afraid she's muddled up some of the facts that Li gave her.

Can you help Skye figure out which facts are true and which ones are false?

Tick the correct box underneath each fact.

Germs are so tiny that you can only see them with a microscope

TRUE

FALSE

All microbes are bad

TRUE

FALSE

Germs can make you ill

TRUE

FALSE

Germs can be spread by touching things

TRUE

FALSE

Germs can never travel through the air

TRUE

FALSE

Some germs can be spread by drinking dirty water

TRUE

FALSE

Write or Draw Activity.

One new thing I learnt today is ...

Something I still want to find out about germs is ...

