Year R

Testing for Coronavirus

This lesson was written in January 2021 and reflects information available, and guidance issued at the time.

Objectives:

- To recognise that tests can be used to detect Coronavirus
- To use language connected to testing
- To talk about how transmission to others can be limited by identifying people who are infectious

Curriculum Links:

- ***Technology**: children recognise that a range of technology is used in places such as homes and schools.*
- ***Communication & Language**: Understanding: children follow instructions involving several ideas or actions.*

Key Vocabulary:

- test, test tube
- saliva
- lateral flow
- PCR
- swab
- laboratory
- scientist

Resources:

- PowerPoint
- Sorting chart worksheet
- Sorting pictures
- kitchen roll
- small see through pot of food-coloured water

FAQs:

What is a lateral flow test? These can use saliva or swab samples and identify the presence of the virus. The tests work in a similar way to a pregnancy test, giving a positive line if the virus is detected in the sample.

What is a saliva test? The saliva test uses saliva provided in a small pot by participants. This is very simple and easy to do at home. The saliva samples are tested for the virus using a technique known as loop-mediated isothermal amplification (LAMP).

What is a PCR test? The NHS use this test. It requires a swab to be taken from the back of the throat and/or high up in the nose either by the participant or a healthcare professional. This can be uncomfortable and difficult to do at home, especially for young children or frail individuals. The swab samples are currently tested for the virus using a technique called polymerase chain reaction (PCR) testing.

Why are there different tests? Testing depends not just on the number of testing kits available, it also depends on the number of laboratories available, how many machines they have and quantities of chemicals needed for the kits to be analysed. Different tests have advantages and disadvantages. The PCR technique has been around for longer than the other tests, and is considered to be the 'Gold Standard' test. The newer tests which have been developed (LAMP tests and Lateral Flow Tests) could possibly provide quicker results and more convenient methods for testing if we are testing large numbers of people. Being able to use saliva as a sample for testing is less invasive than collecting samples using a nose/throat swab.

If I have a negative result, does it mean I can't get the virus? No, it simply means that you don't have the virus at the time when you submit your test sample.

If I have a positive result, can I get the virus again later? Yes, it is possible to get Coronavirus again.

Year R

Testing for Coronavirus

This lesson was written in January 2021 and reflects information available, and guidance issued at the time.

Introduction:

5 mins

Watch mascot video about why it is important to test, and describe the saliva testing, and the lateral flow test.

Main Activity:

20 mins

Name the tests mentioned in the video and ask children what they remember about them. Use PowerPoint slides to assist.

Show children how a Lateral Flow test works by dipping a folded strip of kitchen roll into food-coloured water and watching it spread. Pictorial instructions on PowerPoint (could be done in small groups so children can see close-up how it works).

As a class, sort captioned pictures on the PowerPoint to show which are connected to the Saliva Test, PCR and Lateral Flow tests.

Saliva test	PCR	Lateral Flow
spoon	swab	swab
Lab	Lab	home device

Tell children that they will be sorting pictures by themselves to see what they remember. Keep table slide on PowerPoint visible as a prompt.

Plenary:

5 mins

- Why do people need to get a test when they have COVID-19 symptoms?
- What are the differences between a lateral flow test, a PCR and a Saliva test?

Possible Extension Activities:

- Use lego or junk modelling to make a model of a Lab - think about the robots that might be used.
- Role play a drive-through testing centre using toy cars and a garage.
- Watch a short clip (link in PowerPoint) of the saliva journey to the Lab.
- Spot the difference in the Lab on Storicise website, link here

COVID-19 Tests

Saliva Test	PCR	Lateral Flow

Use a Swab 	**Taken to a Lab** 	**Taken to a Lab** 
Home device 	**Use a Swab** 	**Spit in a spoon**