

Why do we need to wash our hands?

 **Keywords** Hand washing Water Germs Disease Resources Soap Bacteria Hygiene Sanitation

Resources and materials

Resource 1: Clean hands image
Resource 2: Unwashed hands image
Resource 3: Bacteria growth image
Photo 1: Madagascar image
Photo 2: Uganda image
Case study 1: Sonali and Laxmi's story
Case study 2: Mariette's story

Teacher's note

This set of activities is intended to be used as a series of different lessons. Suggestions have been made where lessons can be taught as whole class sessions or in groups. However, each lesson can be tailored to what works well with your own class. Children could be encouraged to keep a learning log at the end of each session so that by the end of the topic, they are able to refer to it and reflect on what they have learned about hygiene and the importance of effective hand washing.

Introduction

Everyone has a right to safe water and sanitation. Unfortunately in some of the world's poorest communities, this is not the case. WaterAid wants to change this by ensuring that everyone, everywhere has access to safe water, sanitation and hygiene education by 2030.

Today, over 315,000 children die every year in the developing world from diarrhoeal diseases caused by unsafe water and poor sanitation. That's 900 children a day. This can be significantly reduced simply by washing hands with clean water and soap.

One of the many things we use water for is to wash our hands. Handwashing is a very important part of keeping healthy. We must be mindful that simply splashing water over our hands does not effectively clean them. This lesson plan encourages children to think about why they need to wash hands thoroughly and explore effective hand washing techniques. It also gets children to think about visible and invisible dirt and bacteria, how it can be spread and some of the affects it can have on their bodies. Each year we celebrate **Global Handwashing Day** on **15 October**. On this day we can help spread the message of hygiene to others. We look forward to your school participating in the celebrations by taking part in various fun activities. People all over the world join us in celebrating Global Handwashing Day.

Curriculum links

PSHE Personal hygiene: Understanding how and why we need to keep ourselves clean.

Science: How to conduct experiments: keeping the conditions the same apart from the variables (being the water and the soap).

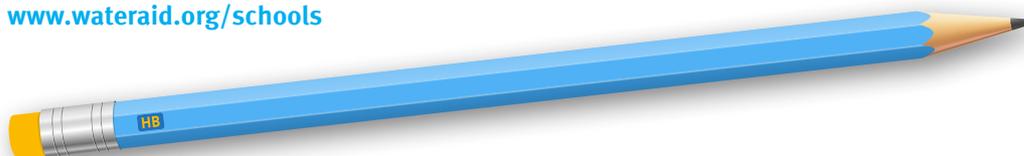
D&T: Designing and creating a ‘tippy-tap’ using various suitable materials.

Aims and outcomes

- To understand and explain why it is important to wash our hands thoroughly
- To be knowledgeable about how germs are spread
- To realise that washing hands with clean water and soap can prevent the spread of disease.
- To reflect on how WaterAid encourages handwashing.
- To be able to wash my own hands thoroughly and give my friends tips on how to improve their hand washing.

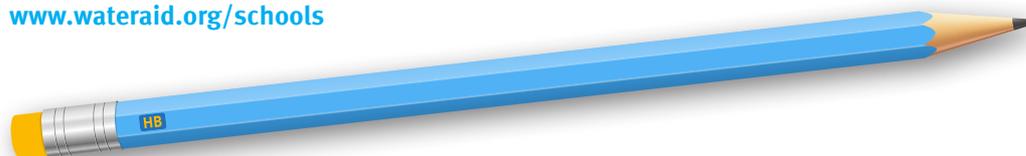
Lesson Plan

Key question	Activity	Resource	Timing
Are all germs visible?	<p>Introduction. Whole class activity.</p> <ul style="list-style-type: none">• Provide children with the image of hands (Resource 1). Ask the children to discuss and describe the appearance of the hands. Ask whether they think the hands are clean or dirty. Get feedback from the children and reasons for their answers. Provide children with the image of the unwashed hands (Resource 2). Again ask the children to discuss and describe the appearance of both hands. Ask whether they think the hands are clean or dirty? Get feedback from the children and reasons for their answer. How do they know?• Explain that a girl had been playing in the garden with her dog. Her hands looked clean and she didn't want to wash them. Do you think her hands were clean? Why / why not? Encourage children to use vocabulary such as ‘germs’ ‘bacteria’ and ‘invisible’. <p>Tell the children that the girl's mum is a scientist so she asked her to print her hand into a little dish of agar gel. This allows bacteria to grow. It was left for one week. Show the children resource 3.</p>	<p>Resource 1: Clean hands image</p> <p>Resource 2: Unwashed hands image</p> <p>Resource 3: Bacteria growth image</p>	15 minutes



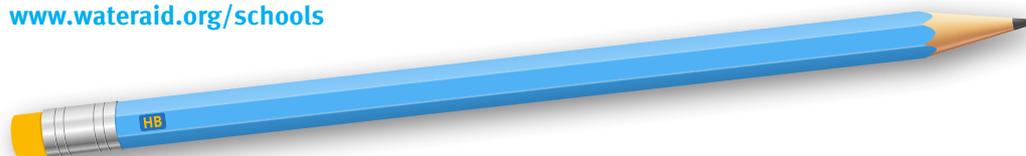
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Key question	Activity	Resource	Timing
	<p>Ask the children what they can see. Where did the bacteria come from? What had her mum proved? (germs / bacteria are invisible).</p> <p>Discuss what you can do to make sure that your hands are clean.</p>		
<p>Do you wash your hands often enough?</p> <p>Do you always wash your hands at the correct times?</p>	<p>• Split the class into three groups. These activities could be done as a carousel or as individual standalone group activities.</p> <p>Group 1: Provide children with a small piece of paper. Ask children to think about how many times they think they wash their hands throughout the school day. Ask children to write that number down on piece of paper and fold it. As a group, discuss and write down the different times in a school day that they should wash their hands from the moment they wake up to the time they go to bed. Examples could be before breakfast, lunch, dinner... whenever eating food, after using the toilet, after playing outside... Decide on a number by counting the different times that have been written down check to see if that number is close to the number written on their piece of paper.</p> <p>Group 2: Imagine an alien has landed on earth. There is no bacteria at all where the alien comes from. He has never had to wash his hands before! We want to be his friend and help him to stay healthy. Write step by step instructions on how to do effective hand washing. Remember to include, what is needed, the time each step takes, techniques detailing which part of hands need to be washed and how. Get the children to think about where germs might be hiding on their hands and how the alien can clean its hands in difficult places to reach. Children can also think about the use of a nail brush to gently wash away dirt under nails, and suggest how often it should be used (at the end of each day or after a really messy activity).</p> <p>Children should write down key words as they discuss their hand washing process. Then make instructions using time connectives.</p>	<p>Paper Marker pens</p>	<p>20 minutes</p>



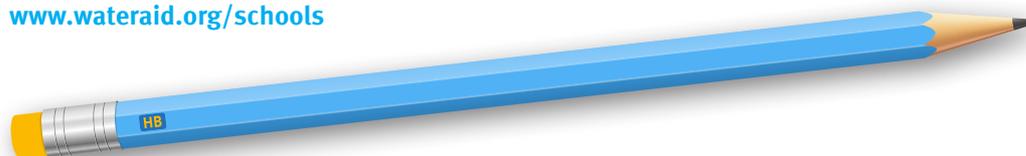
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<p>What is the best way to clean bacteria off my hands?</p>	<p>Group 3: Ask children to tell their partners the different times of the day when they clean their hands. What do they use? Water, soap, antibacterial gels/wipes?</p> <ul style="list-style-type: none"> • Explain to the children that they are going to do an experiment using oil and that the oil is going to represent bacteria. Working in pairs, Child A will be the subject and child B will be the scientist. They are going to wash their hands in three different ways: 1) wash with just cold water 2) wash with just warm water 3) wash with warm water and soap. After each rate the appearance of the hands as either 'very oily' 'oily' or 'not oily'. <p>Condition 1: Use a brush to put oil onto hands of child A and rub the oil all over hands thoroughly. Ask child A to wash hands with cold water only for 30 seconds. Whilst child A's hands are wet, child B feels child A's hands and rates the appearance and feel of the hands. Child A then wipes hands dry with a hand towel.</p> <p>Condition 2: Use a paint brush to apply oil over child A's hands again rub the oil over the hands thoroughly. Wash hands with warm water only for 30 seconds. Whilst child A's hands are wet, child B feels child A's hands and rates the appearance and feel of the hands. Child A then wipes hands dry with a hand towel.</p> <p>Condition 3: Use a paint brush to apply oil over child A's hands again rub the oil over the hands thoroughly. Child A wash hands with warm water plus soap for 30 seconds. Whilst child A's hands are wet, child B feels child A's hands and rates the appearance and feel of the hands. Child A then wipes hands dry with a hand towel. How was the oil removed completely?</p> <p>Note to teacher: If your taps are set to a certain temperature, you can carry out this experiment with just warm water without soap and warm water with soap.</p> <ul style="list-style-type: none"> • Allow a few minutes for each group to feedback to the class. 	<p>Soap Water Oil Hand towels</p>	<p>15 mins</p>



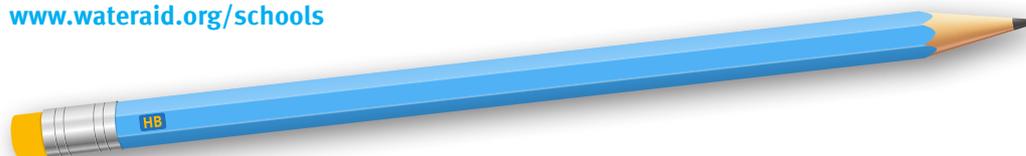
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Key question	Activity	Resource	Timing
	<p>In the same groups they should now:</p> <p>Group 1: think about and discuss some of the reasons why we should wash our hands. Then decide on what are the five most important and present answers on a spider diagram. Examples could include not spreading germs, not making things we touch dirty, not putting germs in our mouths.</p> <p>Group 2: Create a poster/leaflet for the alien detailing when, why and how you should wash your hands.</p> <p>Group 3: Children should discuss and write up their findings. What did they discover? Our experiment showed that the best way to clean bacteria off my hands is...</p> <ul style="list-style-type: none"> • Ask the children to explain why you think you got the results you did? Is there anything they would change about this experiment? 		
Plenary	<p>Ask the pupils:</p> <ul style="list-style-type: none"> • What are we doing when we wash our hands? Explain that we are getting rid of germs. What causes germs? Explain that once germs enter our bodies they can cause illnesses and an upset tummy. • Ask the pupils how many times a day they wash their hands. Allow them a few seconds to think of the different times that they should wash their hands throughout the day. (Refer to group 1's list). When are the most important times of the day that we must wash our hands? Refer to the list that group 1 created and highlight some of the many things we do with our hands. • As we are very tactile with our hands throughout the day, it is very important that we keep them clean. We are preventing the spread of germs to each other and so reducing the risk of making each other unwell. 	Group 1 list	15 mins



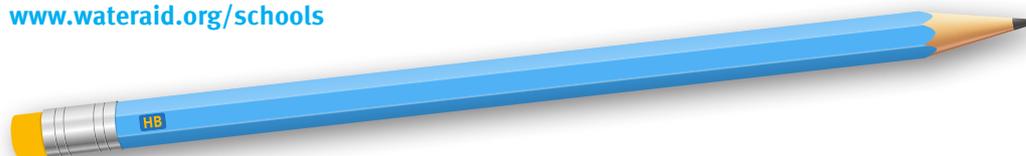
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Key question	Activity	Resource	Timing
	<ul style="list-style-type: none"> Group 2 created a hand washing poster for aliens. Ask them, apart from the aliens, who else do they think should be told or reminded how, when and why to wash hands thoroughly? EVERYONE! How can we educate/promote this message others? 		10 mins
How is the important message of hand washing promoted throughout the world?	<ul style="list-style-type: none"> Explain that in some poor countries there is no clean, safe water or toilets for everybody to use. Because of this, many children become ill and many die of disease and illnesses. They have no other option but to use the dirty water anytime they need to wash their hands. For this reason it is really important that people learn to understand why they need to wash their hands with clean water and soap. Read the two personal stories with the class and highlight some of the problems faced by some children in some developing countries. 	Case study 1: Sonali and Laxmi's story. Case study 2: Mariette's story	15 mins
	<ul style="list-style-type: none"> Explain to the pupils that WaterAid is one of many groups/organisations that work with different countries all over the world that are affected by the lack of clean water. They promote awareness about the importance of adopting good hygiene practices and making them part of their daily routines. Ask pupils to think of the different ways in which hygiene messages could be spread all over the world? Examples could be adverts and leaflets. Display a large world map showing all the countries where WaterAid help to promote good hygiene practices. (www.wateraid.org/uk/where-we-work) Ask pupils if they can find the UK on the map. You are going to use this map to identify the location of certain countries and create a key. <p>Video 1: www.youtube.com/watch?v=M7rBhuqmUiE</p> <p>Explain that Sakshi lives in India. Choose a child to point out where India is on the map and shade it in a colour. Include it on the key. Explain that Sakshi helps to transform her community in India by encouraging and promoting good hygiene practices. Ask the children to describe how hand washing is being promoted in this video? Do you have hand washing monitors at your school? Do you think it would be a good idea to have hand washing monitors in your school?</p>		15 mins



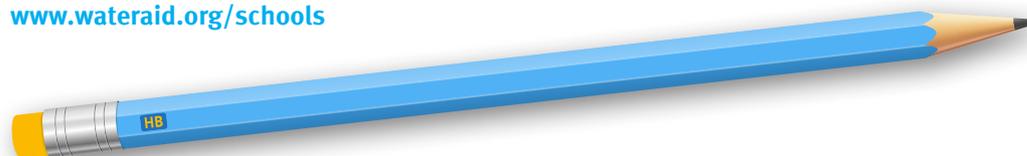
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Key question	Activity	Resource	Timing
	<p>Optional/extension work: As a class discuss what the role of a hand washing monitor should be. What would a hand washing monitor need to check? Examples could include: ensure that clean water, soap and hand towels are always available and report to the person responsible for refilling when needed, check that children are using correct techniques to ensure their hands are washed thoroughly. As a class, children could create a check list for washing monitor to use.</p> <p>Video 2: www.youtube.com/watch?v=qwcWyxwKP60</p> <p>Explain to the children that Ernest is from Madagascar. Show children where Madagascar is on the map and highlight it. Include Madagascar on the key. This video was filmed in Madagascar. Ernest is demonstrating how easy it is to build a 'tippy-tap'. Ask the children why they think Ernest needs to build a 'tippy-tap'. Describe the background in the video clip, what can they see? If they were to build a tippy-tap, what materials would they use? encourage the children to think about durability and sturdiness. If all children in their class needed to wash their hands, Where would they get the water from and how would they transport it from the main water supply to the tippy-tap? As a whole class or in four groups, decide on suitable materials needed to make a tippy-tap and list them. Draw a design of what their tippy-tap would look like and label it. Then write a sentence to explain where and how the water would be transported to the tippy-tap. What advice would they give to their class mates when using the tippy-tap to wash their hands? Answers should include not to waste the water unnecessarily.</p> <p>Optional/extension work: working in groups, write instructions on how to make the tippy-tap that they designed. Following their instructions, make the tippy-tap. Once completed, swap groups and test each other's tippy-taps.</p>		

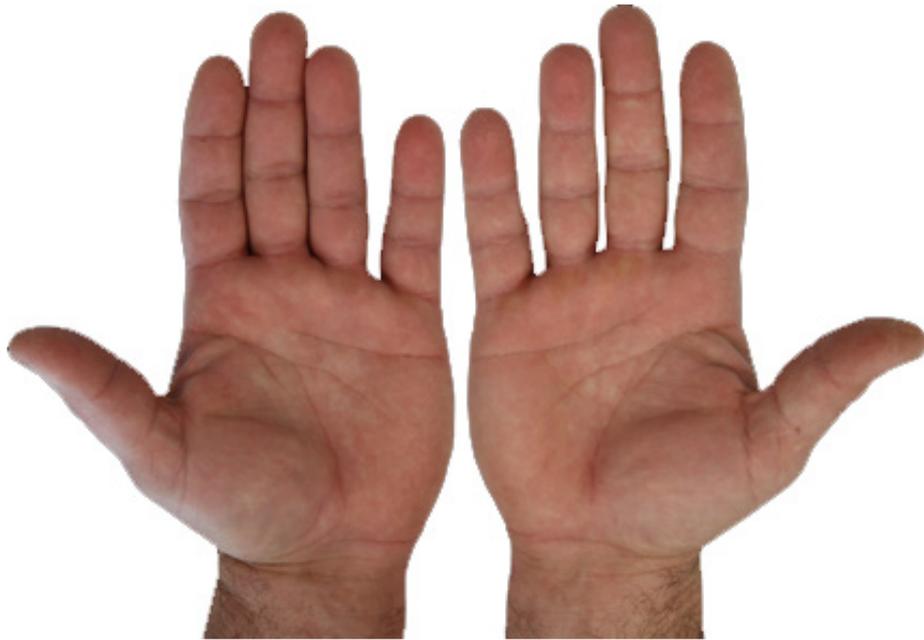


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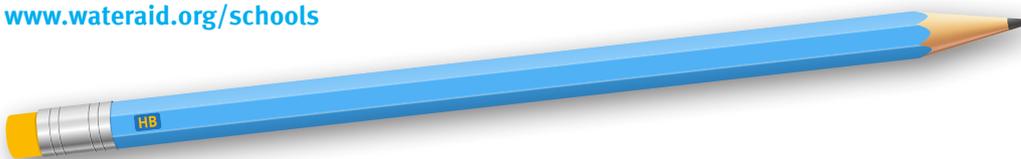
Key question	Activity	Resource	Timing
	<p>Photo 1 is from Madagascar. Recap where Madagascar is on the map.</p> <p>A local artist who lives in the Morondava District, Madagascar is shown in the picture drawing hygiene messages on the wall of a newly built sanitation block at a public primary school in Madagascar. Ask children to look up the word sanitation in a dictionary and discuss its meaning. What message is the artist intending to get across to the children when they look at the drawings. Encourage children to use words such as germs, clean, hygienic. Point out that there is no writing in any of the pictures. Where is the best place to display hand washing messages? Why?</p> <p>Optional / Extension work: Discuss the features of a powerful image. Examples could include eye catching, colourful, clear message. In groups brainstorm what a powerful image would look like that promotes the message of hygiene when washing hands. This image is going to be displayed next to hand washing stations for children and adults. Refer to ideas from brainstorming to move on to drawing the image. Remind the children of the features of a powerful image.</p>	Photo 1: Madagascar image	5 mins
	<p>Photo 2 is from Uganda. Find Uganda on the map and highlight it. Include Uganda on the key. Explain to the children that the children in the photo are at their school. They can't stop expressing their joy of learning the benefits of washing their hands with soap. Celebrating handwashing day is more than just a day to them. In the photo, they are marking the 3rd global hand washing day.</p>	Photo 2: Uganda image	
Plenary	<p>Recap what the children have learnt.</p> <p>Children tell their partners one fascinating thing they learnt about hygiene and hand washing.</p> <p>Which part of the hand washing lessons did they enjoy the most and why?</p> <p>What will they do to encourage others to wash their hands effectively?</p>		10 mins



Resource 1: Clean hands image



Resource 2: Unwashed hands image



Resource 3: Bacteria growth image



Photo 1: Madagascar image (WaterAid/Ernest Randriarimalala)

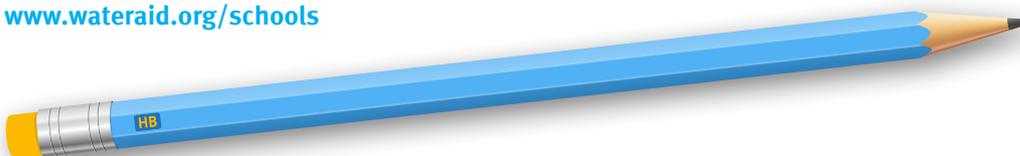


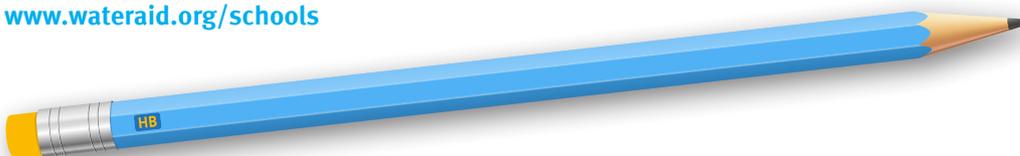
Photo 2: Uganda image (WaterAid/James Kiyimba)



Case study 1: Sonali and Laxmi's story (WaterAid/James McCauley)



Sonali and Laxmi attend a girls high school in Puri, Odisha, East India. This picture was taken in February 2016. Eighteen months prior to this time, there was no clean water or proper toilets in their school. Now their school has clean water and there are three taps for hand washing. Sonali and Laxmi belong to a hygiene club that promote hand washing and hygiene. They educate others on why effective hand washing is so important to prevent disease.



Sonali said ‘when I was small, I was taught how to hand wash, so now when I have babies and my babies grow up I will teach them how to wash because I am more elder than them so it’s my duty. You should always flush after visiting the toilet and you should keep your toilet clean. After you finish this you have to wash your hands before eating. Instead of taking water from open ponds, you should have a hand pump at home so you can have safe water.’

Laxmi said ‘the lack of hygiene used to create health problems including stomach trouble. I’m part of the hygiene brigade. We ensure that all children practice good hygiene and the school is kept hygienic. We make children aware about proper hand washing techniques and when to wash hands.’

Case study 2: Mariette’s story (WaterAid/Ernest Randriarimalala)



Mariette works as a teacher at a public primary school in the Menabe region, Madagascar. She explains ‘before getting safe water and toilets in our school, life was just routine. It was hard for me to teach. There was no visible motivation or improvement for both pupils and teachers in our school. Pupils used to get thirsty, lazy and sleepy. Now we feel there are positive changes. They are no longer missing school and even the percentage of attendance at school has increased because parents at our school have been really motivated by WaterAid’s work here and believe that school is now able to help their children. Children’s attendance has increased and more teachers work at our school. Amongst other things, a new hand washing station was built. We encourage children to use soap when they wash their hands. Every class has its own hygiene kit, which they are responsible for.

Since the new hand-washing station was built, the school has become really active and we participate in many activities and celebrations including Global Handwashing Day. A few years ago, when we had just got running water at our school, we had the opportunity to host the Global Handwashing Day celebrations. We participated by dancing and singing songs about water, sanitation and hygiene. We are all proud of what we have here and we work hard to keep the facilities clean.’

