



Tip-Tap Keeping small hands clean



To make your garden even more African, make this simple hand-washing device so that pupils can keep their hands clean, African style!

The 'Tip-Tap' is simple, but enables people to keep hygiene levels high – very important in a continent where three-quarters of a million people die from diarrhoea each year. Household sanitation can help to curb these deaths and so is included in Send a Cow training for the recipients of livestock.

They are also a great addition to your African garden, keeping hands clean and teaching children about conserving water. Clever devices like these often capture pupils' imaginations, and give scope for Science and DT lessons and sustainable development, PSHE and Citizenship topics.



Ideas for your class:

1. Discuss the spread of disease in African countries, discussing the movement channels (vectors) via which diseases and germs can spread e.g. hand touching, food, water contamination and animal to human contamination.
2. Help pupils to understand how easily disease can spread by using a sticky ball, covered in jam that is held briefly by two pupils before the lesson (in secret). After 10 minutes, as a class investigate how many things and people were 'contaminated' by the jam. Discuss the need for hand washing to stop this spread, especially in rural Africa, where running water from a tap is not often available.
3. Ask pupils to work in pairs or groups and come up with their own design for a hand-washer to be used in rural Africa to reduce the spread of disease. The hand-washer must be cheap and easy to make, be operated without touching it with your hands and wash your hands.



4. Discuss the function of the device and why it suits the environment where it is used – comparing it to the ‘energy rich’ tap use in the UK.
5. Plan out and then make a miniature, working model of the hand-washing device using lollipop sticks, string, small nails and an empty camera film canister.
6. Design a similar device, using alternative techniques and materials to make a working model. Compare effectiveness and pros and cons compared to the African version.
7. Create a video, or your own step-by step guide as to how to make your device, how to use it and why it is needed.
8. Evaluate which materials would be most appropriate to use in the UK or if there were no taps in your school or home (emphasising, re-use and recycling of materials *e.g. a coke bottle and old garden canes*). Investigate around your school or home and find re-usable or recycled materials that you could make your hand-washer out of.
9. Develop a set of environmental and economic criteria for evaluating and comparing the sustainability and effective function of the devices and then some everyday objects *e.g. what does it cost to make? does it re-use, is it re-cyclable? does it use lots of chemicals to make? Is it simple to use? Can everyone use it? does it pivot and operated effectively? is it expensive to use – could it be cheaper? does it use a lot of energy to make or use?*





Tip-Tap

Keeping small hands clean

Hole for water to pour out of

Soap on a dish

String passing through some hoops

String tied to a stick

By placing your foot here, the stick pulls the string down, pulling the spout of the container down – allowing water to pour

Pivot point on container

Towel

Used container with water

Wooden frame

Hole with rocks for drainage





Tip-Tap

Keeping small hands clean



String
through a
hoop to
anchor it

Pivot point
- nail in
container

When
string is
pulled
down,
water flows



How to make a Tip-Tap






Tip taps are a way to keep hands clean after using the toilet, handling animals and. . . gardening! They are a small, but very useful part of Send a Cow training in Africa, where diseases can spread easily.

YOU WILL NEED:

- | | |
|--|--|
|  <i>Four 4ft garden canes</i> |  <i>Six 2ft garden canes</i> |
|  <i>Some gardening string</i> |  <i>A cleaned out plastic milk bottle</i> |
|  <i>Some rocks or gravel</i> |  <i>Three zip-ties</i> |
|  <i>Gaffer tape</i> |  <i>A skewer</i> |

Find a good spot for the Tip-Tap, right near your garden. The soil will need to be fairly soft to push the canes in (water it for a couple of days).

HOW TO DO IT:

-  Put four of the 2ft canes and all of the 4ft canes into pairs, taping the ends of each pair together.
-  Make four holes in the bottle (*as in the picture*) using a skewer - getting the balance point right is the tricky bit!
-  Push one pair of 6ft canes into the ground about 1ft deep if you can. Put the other pair into the ground just under 2ft away from these.
-  Dig a small hole between the canes, placing some stones in it for drainage.
-  Span the top of the 4ft canes with a pair of 2ft canes using string or tape – make sure this is sturdy.



Put a pencil or skewer through the pivot holes and tie on a small loop of gardening string around the top canes. Keep this loop in place with a zip-tie so that the bottle is about two-thirds the way along the canes.



Tie a long piece of the string onto the handle of the bottle near the spout hole, or through a hole in the lid. Guide this string over to the standing canes and zip-tie in place at two points.

At about 1ft from the ground, tie the remaining 2ft cane pair onto the string so that it is suspended at one end and on the ground on the other, making a foot pedal.



You may want to put some extra small canes in the ground to support the main canes to stop them from moving from side to side. Test it out to see if you have put the pivot in the right place.



Fill up the bottle by the lid, using a jug of water.



Now wash your hands!