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Sanitation and Health in our own School

- 20 toilets available (14 downstairs, 6 upstairs) 20 toilets in school (14 downstairs, 6 upstairs)
- Toiletries – paper towels, soap dispensers, toilet paper, basin, taps, hot & cold water available.
- Showers available in changing rooms.
- Health classes – students are taught about personal hygiene and how to maintain a high standard.

Similarities and Differences between our schools and the schools in the Eastern Highlands of PNG

<u>NZ Schools</u>	<u>Eastern Highland Schools</u>
<ul style="list-style-type: none"> • Don't need to cut grass at school • Population mostly urban and complete access basic services • Buses optimised for public transport, with extensive network • Electricity is main power source • Schools built with steel, wood, plaster etc • Lavatories have flush toilets, and supplied with toilet rolls, soap and paper towels • Water supply nearly unlimited and filtered 	<ul style="list-style-type: none"> • Grass cut with bush knives by the students • Population 85% rural with limited access to basic services • Public transport is a 'PMV' (Public Motor Vehicle) • Students collect wood to make fire • Built with plaited bamboo walls and grass or corrugated roof • Lavatories are long drops, if there are any at all, without toiletries • Half a tank of water a day (approx. 500ml p/student)

Importance of Clean Water...

- A fully hydrated brain functions better
- Strength increases, muscles work better when the body is hydrated i.e. muscles don't get hurt easily
- Immune system works better
- Flushes junk out of your system. A hydrated body is better at getting rid of things it doesn't need
- Won't get diseases (waterborne diseases)

Show is water supplied to keep it clean

- Careful with the piping
- Filtering (reverse osmosis, point-of-use filtration and carbon filtration)
- Multi chambered carbon block (blocks all harmful material and unwanted substances in water)
- UV ray filters

What is needed to clean hands to prevent disease?

Water by itself is not enough to clean the skin, because it does not remove the dirt and germs. Soap or detergent is needed to remove the bacteria and micro-organism from the skin.

Comfortably hot water is still not enough to kill bacteria, but it is more effective than cold water.

Washing hands should be:

- Before and after eating
- Before preparing food
- Before handling raw meat/poultry/fish
- After cleaning a child
- After looking after an ill person
- After handling pets

Waterborne Diseases

Waterborne diseases are caused by pathogenic micro-organisms which are directly transmitted when contaminated water is consumed. This is likely to occur where public and private drinking water systems get their water from surface waters (rain, creeks, rivers, lakes etc) which can be contaminated by infected animals or people. Runoff from landfills, septic fields, and sewer pipes, residential or industrial developments can also sometimes contaminate surface water.

Exactly what hand cleaning is required to prevent disease...

Wash your hands under the tap for at least 20 seconds and dry them with a clean or disposable towel for 20 seconds. Drying your hands is a necessary part of cleanliness, since washing your hands only separates the contaminants from the skin. Removing the water with a towel also removes the suspended particles.

Do all hand cleaning methods require water?

No, not all hand cleaning methods require water.

Here are just two ways of cleaning hands that don't require water.

- Hand sanitizer – this however does not clean the hands from organic material, it just disinfects the hands. Disinfecting alone cannot prevent the transmission of infectious micro-organisms.
- Hand wipes – these are good to use when travelling in the absence of soap and water.

How can we persuade other students about the importance of cleanliness?

- Show photos of people that have a lack of water and the
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- type of diseases they could get if they don't keep clean.
- Tell them about consequences of not keeping clean.

- Hang posters around toilets and school to promote the importance of cleanliness.
- Teach them the importance of cleanliness.
- Get rewards for keeping clean

Wara Bilong Life - Water for Survival Brief

Problem:

The students in the Eastern Highlands schools in Papua New Guinea are getting sick from the lack of personal hygiene. This is caused by oral faecal contamination from the children not washing their hands after going to the toilet. They do not have enough clean water to get rid of the germs left on their hands.

Objective:

To produce a working filter prototype that uses little water to clean hands and be used without touching it.

Specifications:

- **Effectiveness:** To ensure waterborne diseases are not passed from one person to another while dispensing a small amount of water at a time. Provides enough water to wash the hands of up to 10 children and deliver just enough water, or other liquid to allow hands to become germ free after using the toilet. It should be used so dirty hands do not contaminate it.
- **Durability:** Will need to withstand the hit of a rugby ball since it will be situated near a rugby field. It will need to resist the rough handling by students and to be outside where it may be hit by wind, rain and sun.
- **User-Friendly:** Cannot be too complicated and should be easy to use. The students should be able to use the prototype without reading any instructions. It needs to be easily filled and cleaned.
- **Communication:** Health education materials should accompany the prototype. Students should be able to see the device after being to the toilet so they remember to wash their hands. Display effective messages to explain how people get sick from bacteria so that everyone gets the message that cleanliness leads to good health.

What it's made of:

- plastic bottle
- pebbles
- cotton balls
- leaves
- string
- wood

Why we chose it:

It was a simple design, which did not cost much. The materials were materials found around the home.

How to use it:

Pull the string and water will come out. Then close it with your clean hands.

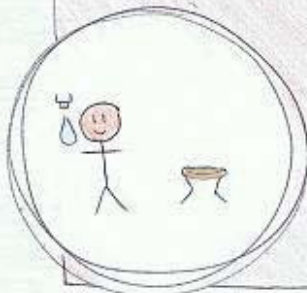
Health Education Material



Hi! I'm Bucket, and I'm here to teach you about...

washing your hands. ♡

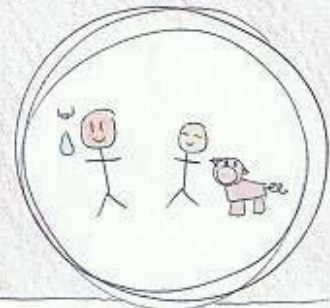
ALWAYS WASH YOUR HANDS BEFORE AND AFTER:



using the toilet,



handling food,



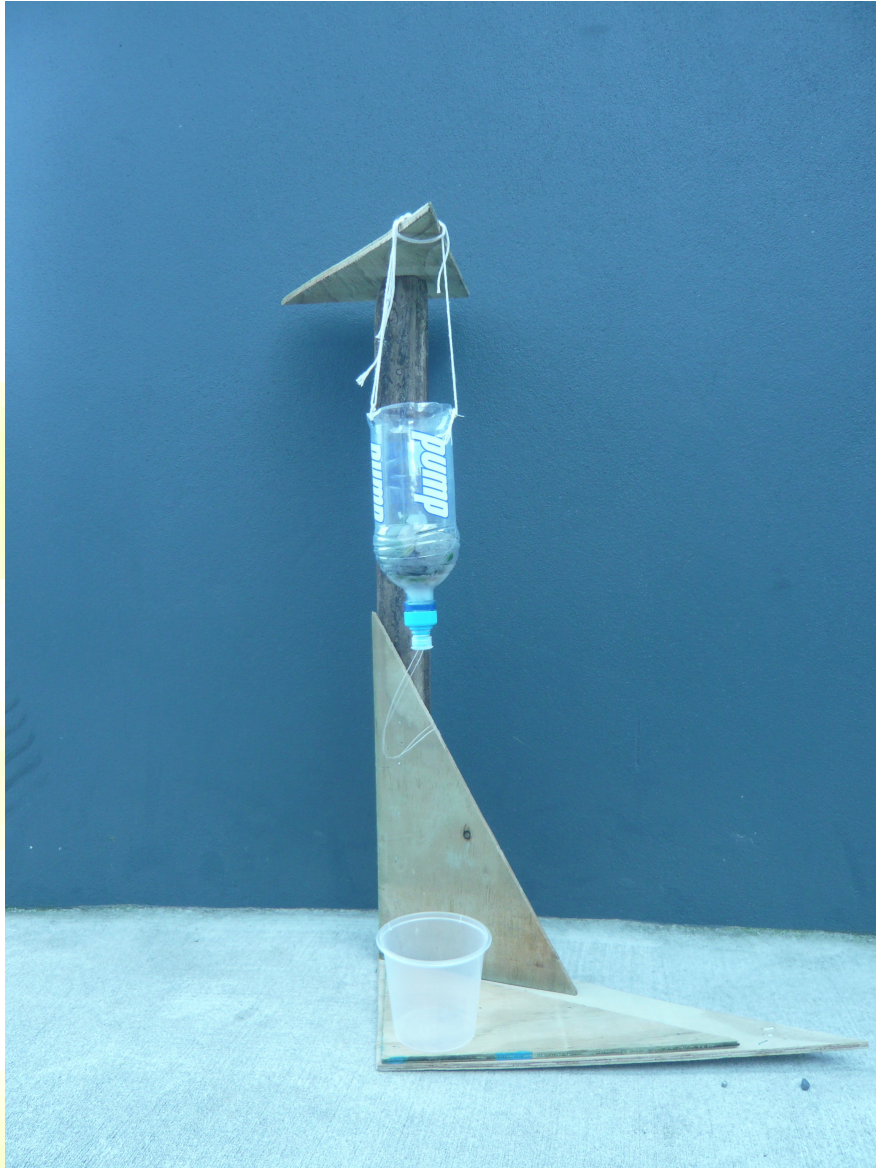
or looking after others.



If you don't wash your hands, you can get very sick! So always remember to wash your hands!



Wash your hands,
whenever you can! ~ ♡



Our design