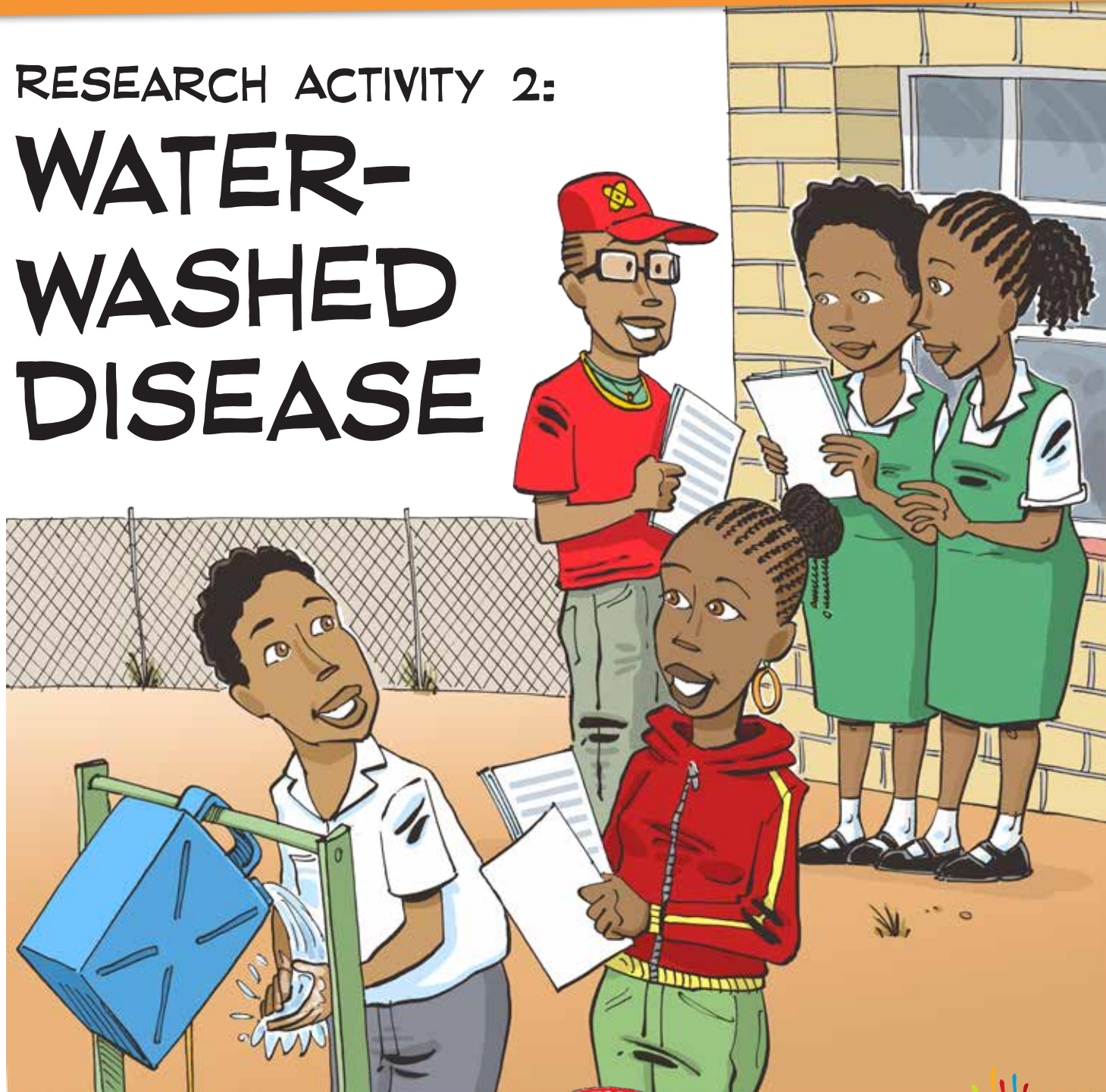




RESEARCH, RHYTHM + RHYME FOR HEALTHY COMMUNITIES

RESEARCH ACTIVITY 2:

# WATER-WASHED DISEASE



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# GET RESEARCH READY!

Welcome to Hip Hop Health. Did you know that Hip Hop artists and scientists do the same thing? They all observe the world around them. When artists and scientists see problems – they try to do something about it. But before a problem can be solved we have to find out more about it, or the solutions won't work. That's called research. In this project we'll be doing research to better understand the problems in water and health, so that we can help fix them.

But how do we do research? No problem – it is just like making music! Let us break it down: a research project is about finding an answer to a new question or a new solution to a problem. The research question is the project's basic beat, simple né?

Next the beat needs some rhythm. This means choosing what kind of information you need to answer your research question and how you are going to collect it. The information you collect is called raw data. Data is like a single sound in a song – put it all together and you get an answer! Having only one data point is just noise, but lots of data points means music!

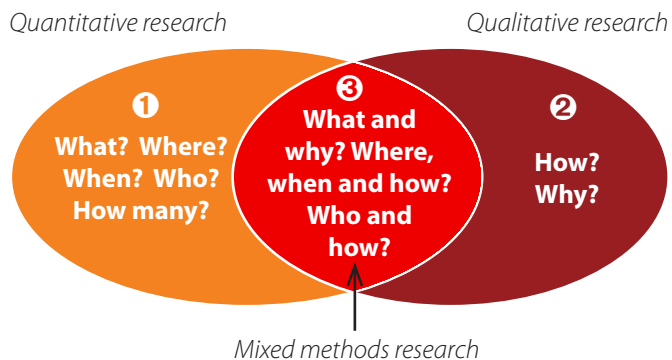
## The research cycle

Research is done in steps, called the **research cycle**. Research usually leads to more research.



There are three kinds of data you can collect. They are:

- ① Numbers – called quantitative research.
- ② Words, ideas or pictures – called qualitative research.
- ③ Both numbers and words – called mixed methods.



The method you choose depends on the questions you ask. When you put all your data together, they tell you a story about the topic you are researching.

### Keep it fair and safe

All research must be done in a way that does not harm people, animals or the environment. It must also be done in a way that means we can trust the results. This is called research **ethics** – here are a few principles:

- **Informed Consent:** when you talk to people, always ask permission first and explain exactly what the research is about. It is a person's right to say no!
- **Community Engagement:** involve or talk to the people affected by the research problem.
- **Privacy and confidentiality:** you must always protect the people you talk to by keeping their names and any personal information private.
- **Risk-benefit:** all research must do more good than bad.
- **Social Value:** research must also be useful to the community.
- **Research Justice:** all community members must have an equal chance to benefit from the research.



# STAYING HEALTHY WITH WATER



WATER IS LIFE - ALL LIVING THINGS NEED IT TO SURVIVE AND STAY HEALTHY.

SADLY WATER IS BECOMING SCARCE. MANY PEOPLE GET SICK FROM A LACK OF CLEAN WATER FOR DRINKING AND WASHING.

WHATEVER YOU DO, ALWAYS WASH YOUR HANDS WITH SOAP AND CLEAN WATER.

## STEP 1 Problem Statement



WHAT IS THE PROBLEM?

Many people get sick with diarrhoea, especially children. Babies under 2 years of age are especially at risk. They can die unless they get treatment quickly. With a little bit of knowledge and by doing things a little differently, most of these diseases can be prevented and people can live healthier lives. What do the people in your area know about the causes of diarrhoeal diseases and what can be done to prevent them?

A PROBLEM CLEARLY STATED IS A PROBLEM HALF SOLVED.



## STEP 2 Knowledge Review



WHAT DO WE KNOW ABOUT WATER-WASHED DISEASES?

There are many diseases that people can get when there is a shortage of clean water for washing. They are known as 'water-washed diseases'.

These diseases are caused by harmful micro-organisms that are passed on by touching things and other people, for example, when a sick person shakes hands.

In this activity we will look at diseases that enter the body through the mouth and cause diarrhoea and vomiting. Such diseases can be very dangerous, especially for young children.

Good personal hygiene stops harmful micro-organisms from spreading. That means that people need to wash their hands with soap and clean water.

What else do you know about diarrhoea? Use the Internet or look up information in your local library. Write it down here:

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- 
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Reference  
(Where did you find the information?)

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### STEP 3 Research Aim



WHAT DO YOU STILL WANT TO FIND OUT, AND WHY WILL IT HELP YOU TO SOLVE THE PROBLEM?

We want to find out what learners at our school know about the causes of diarrhoeal diseases. By learning more about learners' current knowledge and understanding of the issue, we can develop ways to help prevent disease and save lives.

### STEP 4 Research Question



THIS IS THE SPECIFIC QUESTION THAT YOU WILL TRY TO ANSWER THROUGH YOUR RESEARCH.

Do learners at our school know the causes of diarrhoeal diseases and how to prevent them?

## ACTIVITY

### Finding out what people know about water-washed diseases

#### YOU WILL NEED:

- Water-washed diseases questionnaire (20 copies)
- 20 learners who agree to answer the questionnaire
- A box to collect answers
- Permission from your school to conduct the survey

### STEP 5 Research Method



WHAT RESEARCH METHOD WILL YOU USE TO COLLECT DATA? WHY DO YOU CHOOSE THIS METHOD?

You will use a questionnaire to collect data from learners in your school. The learners will fill in the questionnaire themselves.

The data you will collect from the questionnaire contains both numbers (quantitative) and ideas/words (qualitative).

GET APPROVAL AND TALK TO THOSE AFFECTED (SEE **KEEP IT FAIR AND SAFE** ON PAGE 2).



### STEP 6 Consent

### STEP 7 Do the Research



DESCRIBE THE STEPS YOU FOLLOW TO COLLECT YOUR DATA.

- 1 Identify 20 learners in your school who are willing to participate in the research. Explain to them that their answers will be anonymous (their names will not appear on the questionnaire) and that the data collected will be used to develop responses to improve the health of their community.
- 2 If they agree to being part of the research, give each learner a copy of the questionnaire to fill in.
- 3 If you do not have the facilities to make copies, you can write the questions on a poster or board, and ask the learners to write their answers down on loose sheets of paper (with no names).
- 4 Ask the learners to place their anonymous answers in a cardboard box or another suitable container.



## Water-washed diseases questionnaire

The Science Spaza club at your school is doing a project to learn about research, and particularly about water and health, through a project called **Science Spaza – Hip Hop Health**.

Through this research information will be gathered about availability of water and about people's knowledge of water-washed diseases. The information will help to devise ways of reducing water-washed disease in your community. If you are willing to be part of the research, please answer this questionnaire and place it in the box provided by the researchers.

Please note that you do not have to participate in the research if you do not want to. You will not be asked to write your name or identify yourself in any way, so your answers are confidential.

1. (a) Do you know what causes people to become sick with diarrhoea or vomiting?

Yes  No

(b) Write down the cause(s) that you know about:

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2. (a) Where is the nearest source of water for your family?

In the house  In the street  Less than 10 minutes away  10 or more minutes away

Other: \_\_\_\_\_  
\_\_\_\_\_

(b) Is there always enough water to wash your hands?

Yes  No

(c) Is there always soap for washing?

Yes  No

3. (a) Do you know how to treat a person with diarrhoea to prevent them from becoming dehydrated?

Yes  No

(b) Describe the treatment you would use.

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4. What can be done in your community to prevent people from getting sick with water-washed diseases?

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### Keep it fair and safe

Think about the ethical and safety issues that are important for this project. Write them down.

Ethical issues:

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Safety issues:

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### DID YOU KNOW:

A SUGAR-SALT SOLUTION (ORAL REHYDRATION FLUID) OR SPORTS DRINKS CAN BE USED TO PREVENT DEHYDRATION, ONE OF THE REALLY DANGEROUS THINGS ABOUT DIARRHOEA.

ADD 6 LEVEL TEASPOONS OF SUGAR AND ½ TEASPOON OF SALT TO 1 LITRE OF PREVIOUSLY BOILED WATER. ALLOW TO COOL AND TAKE SMALL SIPS TO AVOID DEHYDRATION.

## STEP 8 Analyse your Data



ORGANISE YOUR DATA AND LOOK AT IT CAREFULLY TO FIND AN ANSWER TO YOUR RESEARCH QUESTION.



GROUP SIMILAR IDEAS TOGETHER.

Use this table to combine the responses from all the learners' questionnaires.

**TABLE OF RESULTS – WATER-WASHED DISEASES**

### 1. Causes of diarrhoea

(a) \_\_\_\_\_ out of \_\_\_\_\_ learners said they know what causes diarrhoea.

(b) Learners gave the following causes:

<i>Causes</i>	<i>Number of learners who said this</i>

### 2. Availability of water

(a) Nearest water source?

<i>Nearest source</i>	<i>House</i>	<i>Street</i>	<i>&lt; 10 min</i>	<i>&gt; 10 min</i>	<i>Other</i>
<i>Number of responses</i>					

(b) Always enough water to wash hands? YES: \_\_\_\_\_ responses NO: \_\_\_\_\_ responses

(c) Always soap available for washing? YES: \_\_\_\_\_ responses NO: \_\_\_\_\_ responses

### 3. Treatment of diarrhoea to prevent dehydration?

(a) Know how? YES: \_\_\_\_\_ responses NO: \_\_\_\_\_ responses

(b) Suggested treatment:

<i>Treatment</i>	<i>Number of learners who said this</i>

### 4. What can be done to prevent diarrhoea and other water-washed diseases?

<i>Suggestions</i>	<i>Number of learners who said this</i>

**STEP 9**  
**Conclusions**



WHAT  
ARE YOUR  
FINDINGS?

Once you have analysed your data, you will be able to draw conclusions, based on what you have discovered in your research. Refer back to the problem and the research question. Does your data help you to answer the research question?

OVER TO  
YOU...

Use the space below to write down any conclusions you and your group have come up with.

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**STEP 10**  
**Recommendations**



LOOK AT YOUR CONCLUSIONS. WHAT CAN BE DONE TO  
SOLVE THE PROBLEM?

This is a very important part of any research project because this is a chance for you to put your research into action and make a difference to your community.

**What kind of action?**

There are various ways that research can make a difference.

**Future research.** Research often leads to more questions and the need to find out further answers. Do you have questions about this research that you still need to find answers to?

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**Innovate.** This means to come up with a new idea! A great example of a new idea is the Tippy tap. This enables people to wash their hands without wasting a lot of water. Do you have more ideas for innovations?

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**Advocacy.** 'Advocacy' means to speak up! You can make people aware of the problem and tell them what needs to be done. How will you get people to take notice of the problem?

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**Telling people about what you learned in your research is called dissemination. Why not write a song to spread the word!**

## How to write a good hip hop song



**LYRICS** – The first thing you need is content. Choose some facts from your Hip Hop Health activity and write some lyrics to share a key message with people. Rhyming and clever use of words can be a good way to do this. Get your teacher or an expert to check that your science facts are correct, and write some rhymes!

**Remember:** using swear words and words that put other people down (e.g. women) are not cool!

**BEAT** – Next is the beat. Remember, rapping is all about rhythm. In the same way that singing adds a melodic layer to a song, rapping adds a rhythmic layer. Use rhyming words to try to give your lyrics some flow, and add a beat! You can create your own beat with beatboxing, download a beat, or even get a friend to make you a beat.

**EMOTION** – Finally, you need emotion. You want the audience to sense how you feel about your message, and you want them to feel it too. This is a chance for you to truly express yourself. Let your emotions come through in your song and everyone will want to listen!

*A few more tips:*

- You don't want to confuse the audience or make it too hard for yourself, so keep it simple.
- If you're enjoying it, the audience will enjoy it; so enjoy it!
- This is your own creation, so don't try to mimic someone else. No one can do YOU better than YOU.

***Keep it simple, have fun, and be yourself!***

Why not get some friends together and put on a show! You can even enter your songs in our annual **Hip Hop Science Spaza competition**. Find out more at [www.sciencespaza.org](http://www.sciencespaza.org).



Hip Hop Health and Hip Hop Science Spaza are an initiative of Jive Media Africa. For more information, visit [www.jivemedia.co.za](http://www.jivemedia.co.za).

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