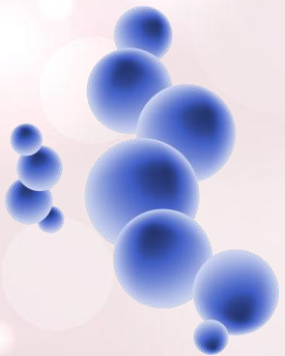


# *Staphylococcus aureus:* A Superbug Story for Kids

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By RACHEL EKEP OYEBODE  
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as part of their MSc projects  
at the University of Swansea (2023)



*The microbial world in, on and around us*

# What are Microorganisms?

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**Microorganisms are living things that are too small to be seen with the naked eye.**

**They are normally viewed using a microscope.**

**Bacteria, viruses, and some moulds are examples of microorganisms.**

## MICROORGANISM



# Types of microorganisms



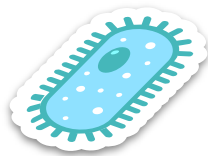
**Fungi**



**Bacteria**



**Virus**



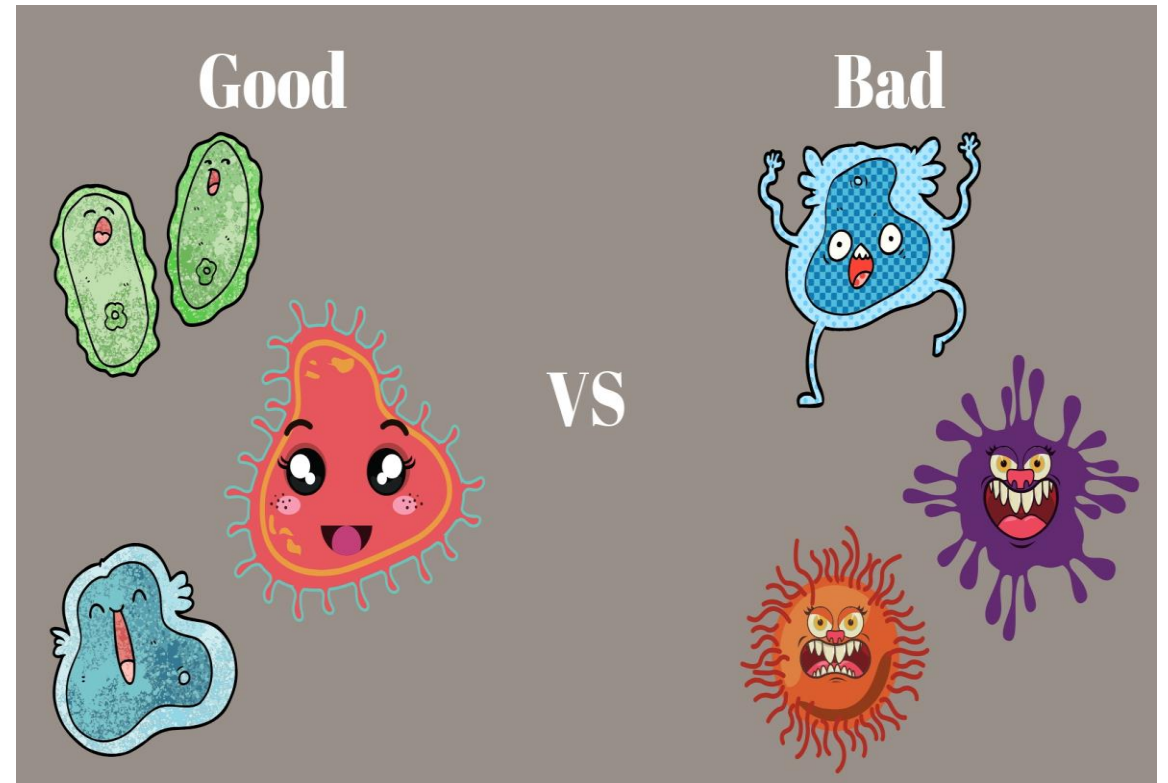
**Protozoa**



**Algae**

# Good and Bad Bacteria

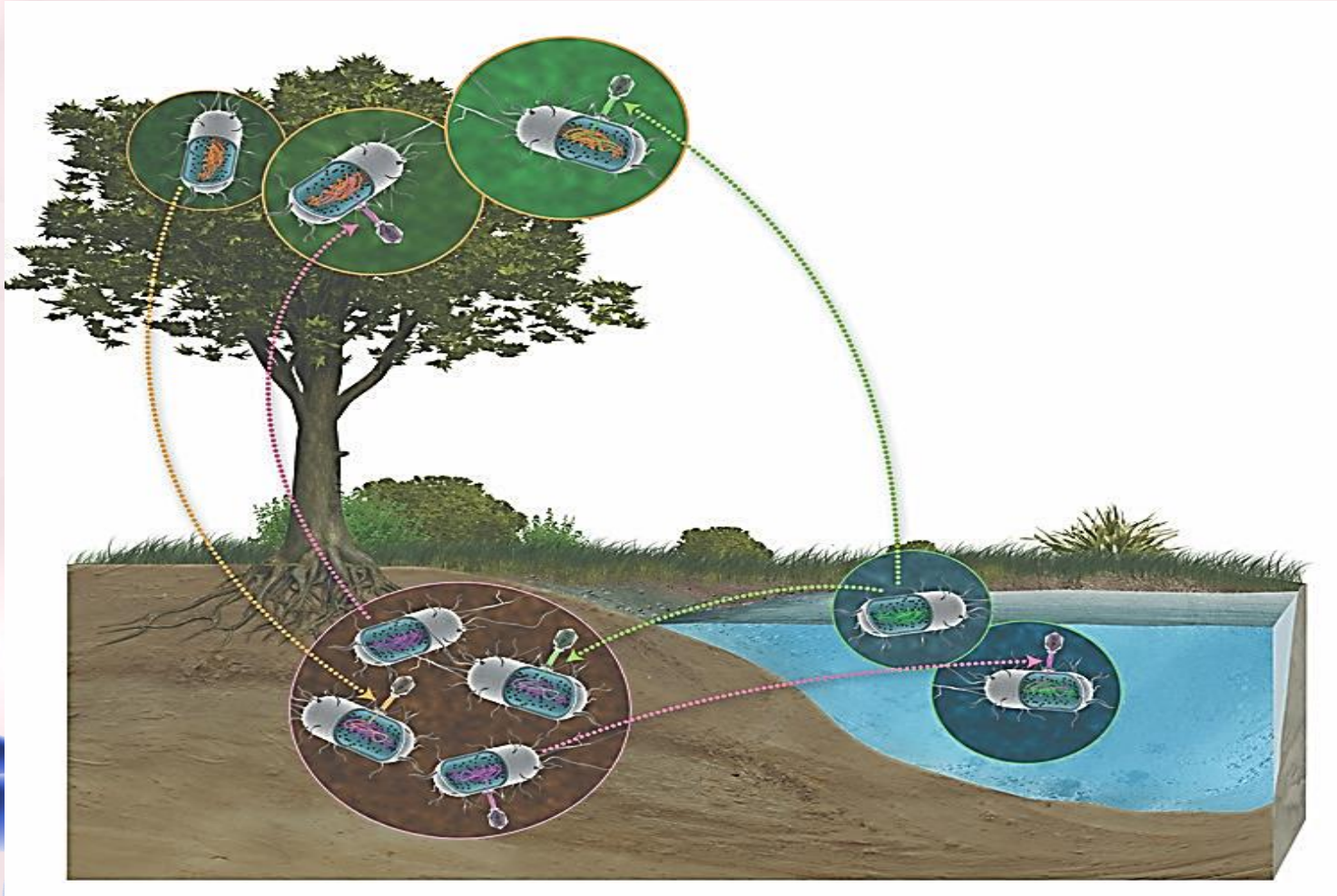
- Bacteria are examples of micro-organisms. We have good and bad bacteria.
- The good bacteria help our body while the bad ones harm our body.
- *Staphylococcus aureus* is an example of a bad bacterium that can harm our body.





# Where do bacteria live?

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**Bacteria are found everywhere!**

**They are found in water, in the air, in the soil and even in human being.**

**This is why we need to maintain high level of hygiene to prevent being infected by bacteria.**

# *Staphylococcus aureus* as a bad bacterium



It is the leading cause of skin and soft tissue infections such as boils, furuncles, and cellulitis.

Although most staph infections are not serious, *S. aureus* can cause serious infections such as bloodstream infections, pneumonia, or bone and joint infections.



# How Are Germs Transmitted?



Droplets



Airborne



Direct contact



Indirect contact



Waterborne



Foodborne



Vector-borne

...through touch

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...through coughing or sneezing



**Coughing spreads germs.**

**Covering a cough helps keep germs from spreading.**

# Ways to prevent the spread of bacteria



wear a mask



clean and disinfect



cook food well



wash your hands



cover your cough



# Proper way to wash our hands

## HOW TO WASH YOUR HANDS



01  
Wet hands  
with water



02  
Apply soap



03  
Rub hands  
palm to palm



04  
Fingers interlaced  
and back of hands



05  
Clean thumbs



06  
Clean fingernails



07  
Rub wrists



08  
Rinse hands  
with water



09  
Dry hands with  
a clean towel



# ANTIMICROBIAL RESISTANCE



We often take drugs (antibiotics) to fight bad bacteria when we feel sick.

But taking these drugs without a doctor's recommendation can lead to antimicrobial resistance.

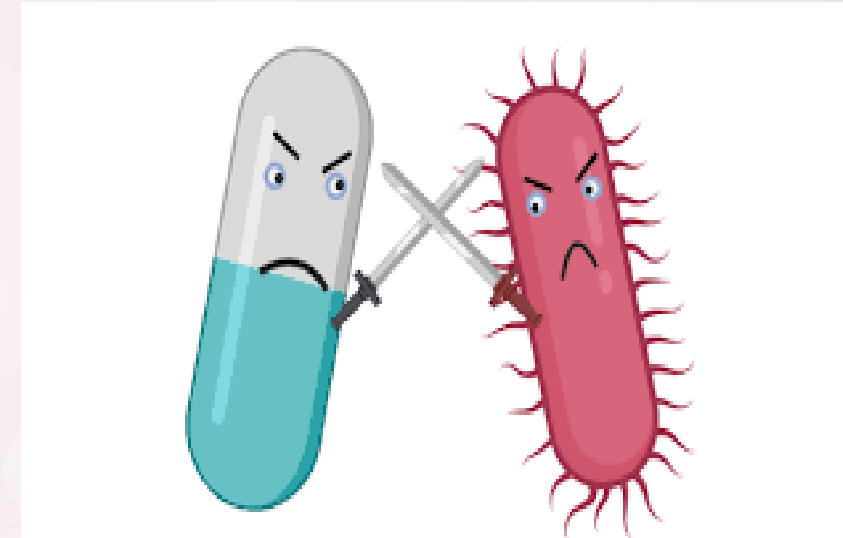


# WHAT IS ANTI-MICROBIAL RESISTANCE?

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**Antimicrobial Resistance (AMR)** occurs when bacteria change over time and no longer respond to medicines, making infections harder to treat and increasing the risk of disease spread, severe illness and death.

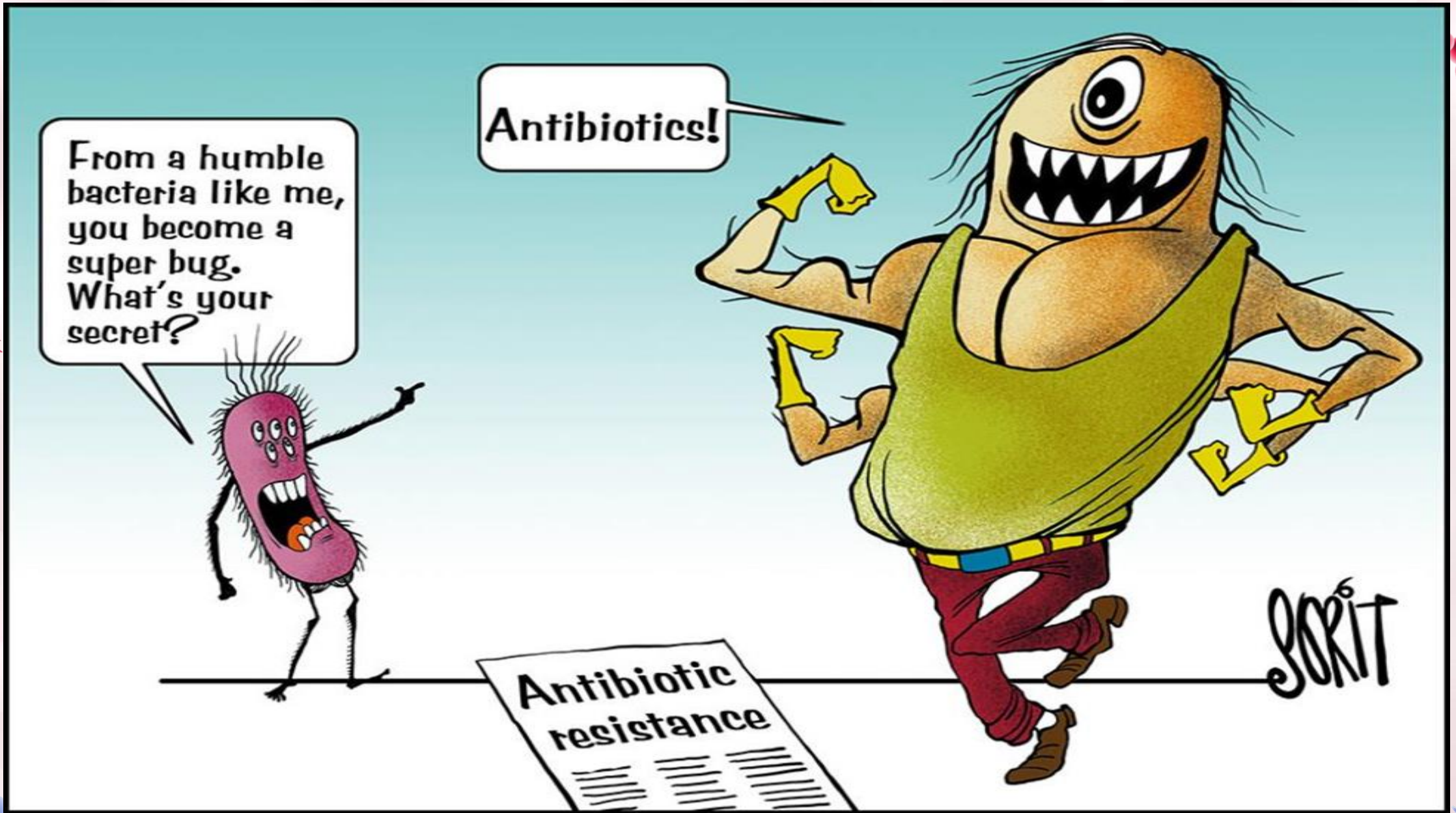


From a humble bacteria like me, you become a super bug. What's your secret?

Antibiotics!

Antibiotic  
resistance

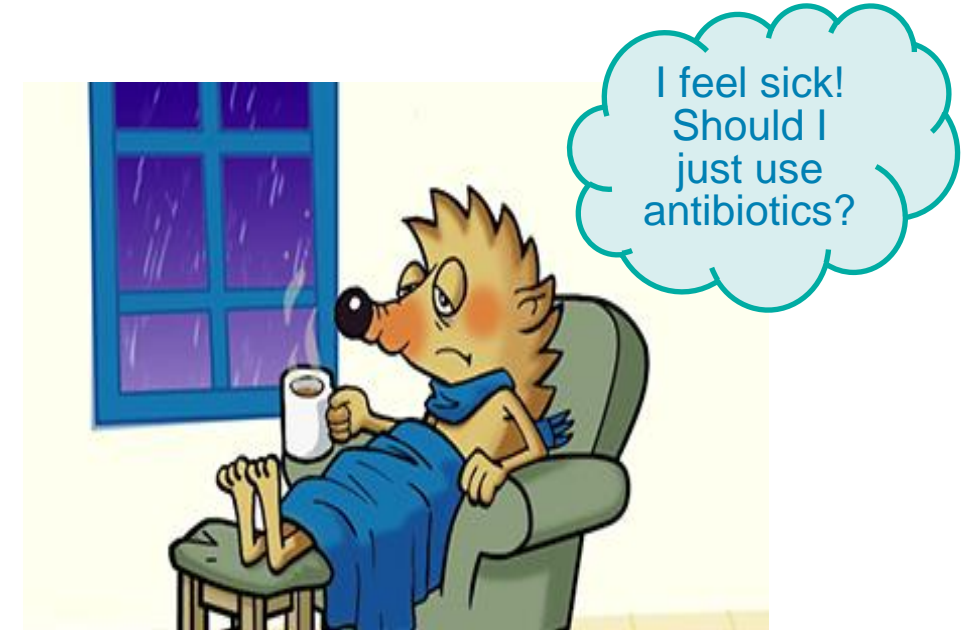
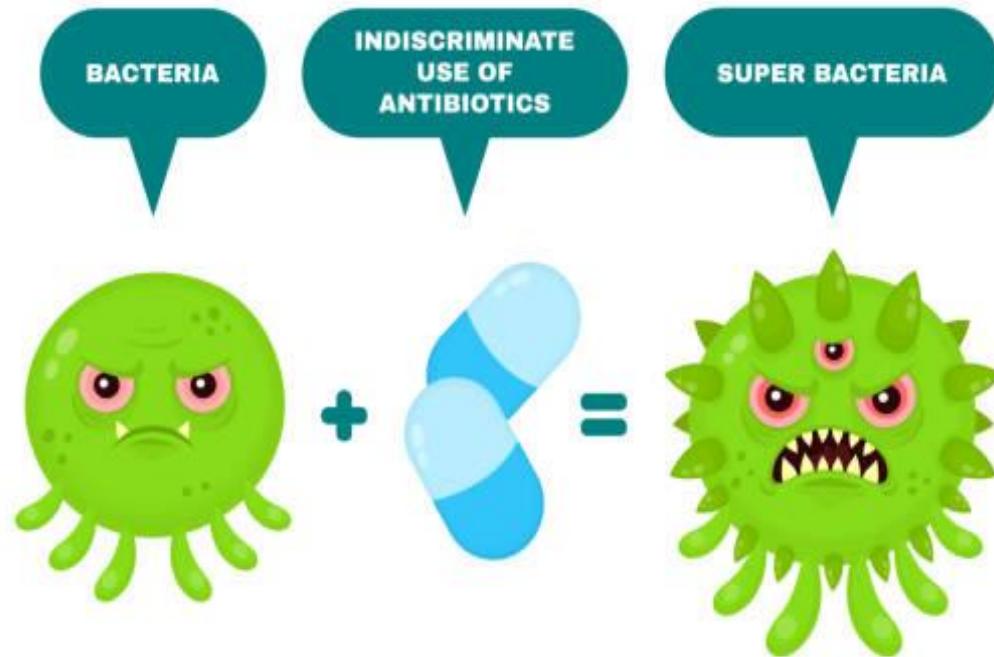
SORIT





# Causes of AMR

- ❑ Inappropriate use of antibiotics
- ❑ Misuse and overuse of antibiotics
- ❑ Lack of clean water and sanitation



# Way out

COLD? FLU? Get well  
**without antibiotics!**

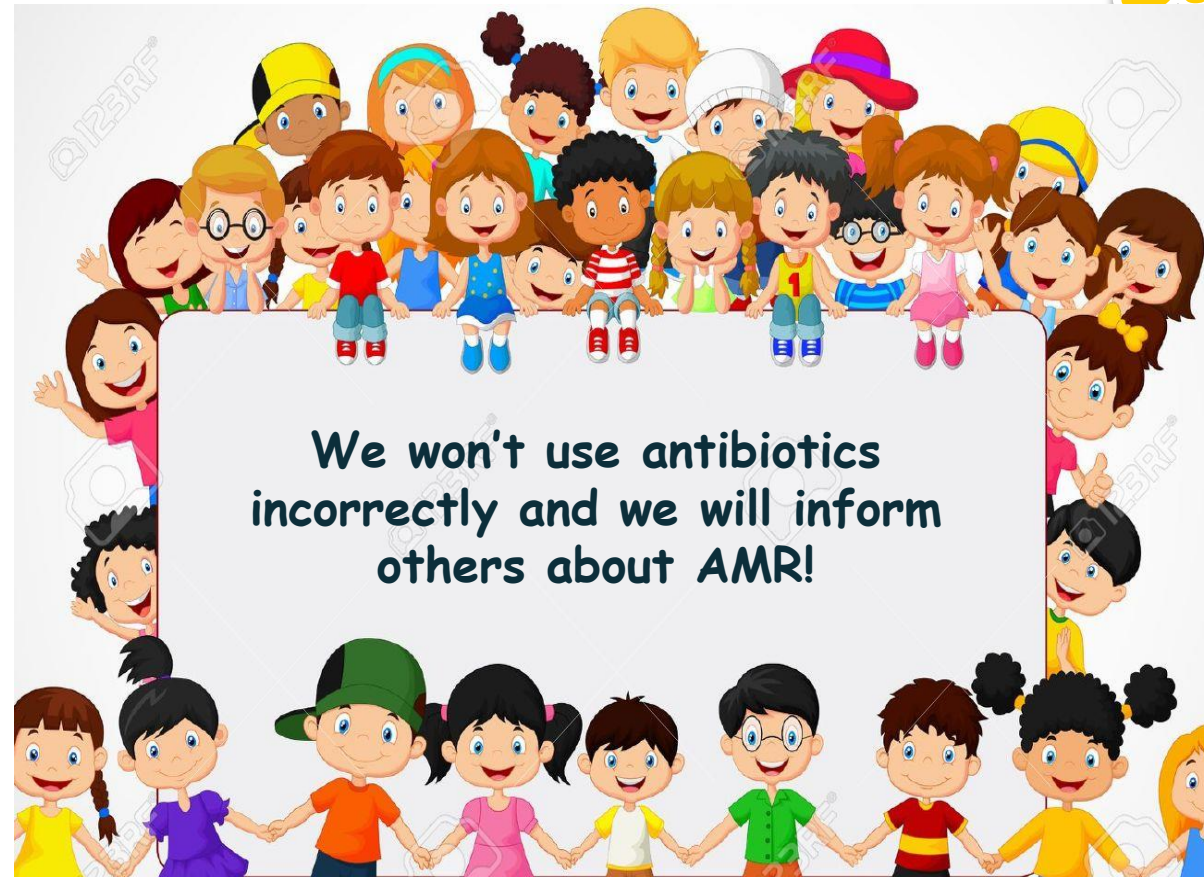
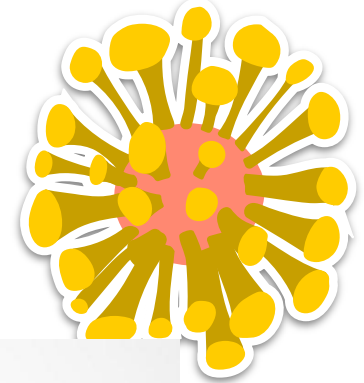
Improved sanitation and hygiene practices: Keeping clean and washing hands stops germs from spreading and making us sick

Prudent use of antibiotics: Taking medicine only when needed helps it work better when we're sick

AMR awareness: Knowing about germs and medicine helps us stay healthy and stop them from getting stronger



# Conclusions





# Interactive Questions for children

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***S. aureus*** is an example of ?

A. **Viruses**



A. **Bacteria**



A. **Fungi**



# How do we prevent bacteria from spreading?

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- By wearing a \_\_\_\_\_
- By washing our \_\_\_\_\_
- By properly cooking our \_\_\_\_\_
- By taking anti-biotics only when needed.



To find out more about bacteria, infections and how to fight them please visit our website.



*The microbial world in, on and around us.*

*<https://www.superbugs.online>*