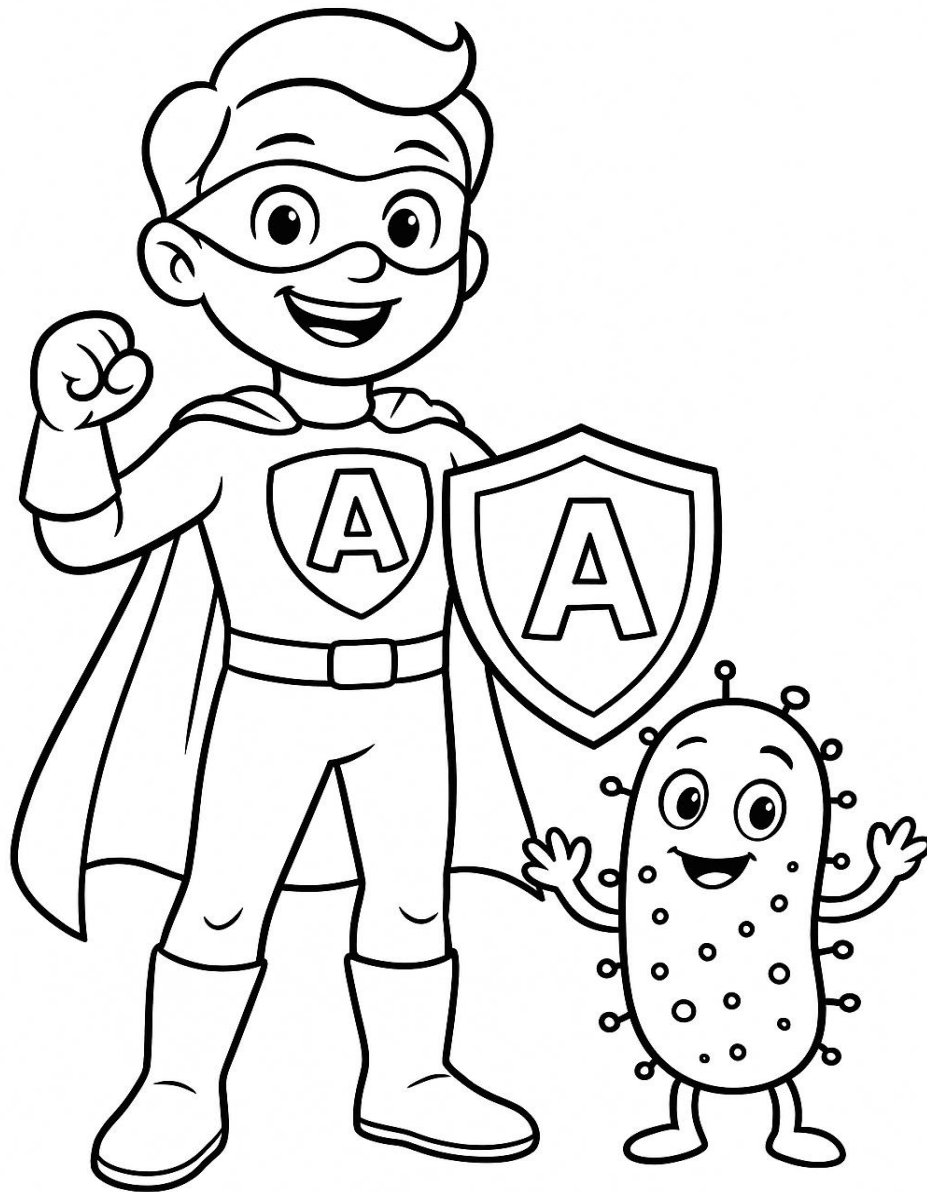


THE CURIOUS KIDS' GUIDE TO GERMS



AWARE
Oregon Alliance Working for
Antibiotic Resistance Education



**OREGON
HEALTH
AUTHORITY**

STOP THE SPREAD OF GERMS

Color the bacteria in this picture **GREEN**
and color the viruses **RED**. Color the soap
bubbles **BLUE**.



Escherichia coli
(bacteria)

Streptococcus
(bacteria)

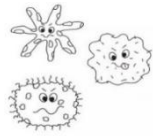
Human Coronavirus (virus)

Spirillum
(bacteria)

Bacillus cereus (bacteria)

Salmonella typhimurim
(bacteria)

Lambda phage
(virus)



GERMS 101



What if I told you there were TRILLIONS of tiny microbes all around you? And they live EVERYWHERE – on the ground, in the water, in the air, and even inside your body! But wait, don't panic! There's good news, most microbes don't hurt us and some are even helpful, but there are a few bad apples that do make us sick. Let's learn more about them...

What are microbes?

A microbe is a fancy word for a VERY tiny living thing. Some microbes help us, and some can make us sick, but most are just part of the world around us.

What are germs?

Germs are a type of microbe that can make you sick. Another word that scientists use for germs is pathogens. Pathogens cause symptoms like throwing up, coughing, and sneezing.

There are different kinds of pathogens, too.



Bacteria – these tiny living things are found almost everywhere! From inside your body to the air and soil outside. Some bacteria, like the ones that live in your tummy, are helpful, but others can make you sick.



Viruses- these tiny germs are even smaller than bacteria and you can't see them without a super powerful microscope. Viruses can't live or grow on their own, they need a living cell, like the ones in your body to make copies of themselves, which can make us sick. Viruses cause things like colds, flu, and COVID.



Fungi- are living things that can be small or big; and some like mushrooms can be eaten! They're not plants or animals and grow by breaking down things like dead plants, food, or other things in nature.



Protozoa- these one-celled organisms are bigger than bacteria but are more similar to plants and animal cells. They like to live in wet places like puddles or lakes. Some protozoa are parasites; this means they need to live on or inside another living thing to survive.

What are antibiotics?

Antibiotics are a special type of medicine that help your body fight bacteria, but they don't work against other germs like viruses, so they can't help with the flu or a cold.

What is antibiotic resistance?

Antibiotic resistance happens when the bacteria that make you sick change and learn how to fight back against this special type of medicine. When this happens, the medicine may not work anymore.

You should always finish all the antibiotics your healthcare provider gives you and never share antibiotics BECAUSE...

- The bacteria that make you sick don't all die right away.
- You may feel better...but some of the bacteria are still there.
- It only takes a couple left behind and they can come back again.

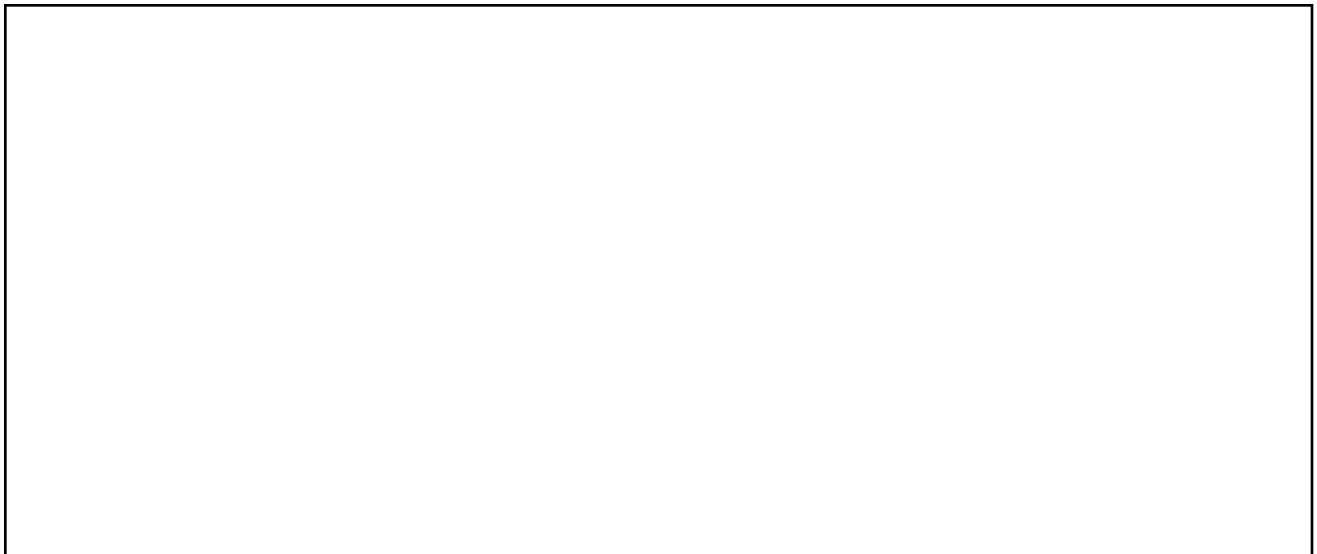
How do I avoid getting sick?

- **Handwashing** -this is one of the most important things you can do to stay healthy! Wash your hands with soap for at least 20 seconds to get rid of all the germs.
- **Covering sneeze and cough** – this is important because when you sneeze or cough tiny droplets fly out, which can have germs in them and make other people sick! Cover your mouth with a tissue or use your elbow!
- **Vaccines** – a vaccine gives your body a little practice by showing it a tiny, safe piece of a germ. This way, your immune system learns how to recognize and fight the real germ BEFORE you ever get sick!

Design your own superbug superhero!

This superhero will fight bacteria that are resistant to antibiotics and will remind everyone to use antibiotics wisely, so germs don't get stronger.

1. Choose your superhero's powers
2. Design the costume
3. Give them a catchphrase
4. Draw and share your hero!



Pathogen Scavenger Hunt

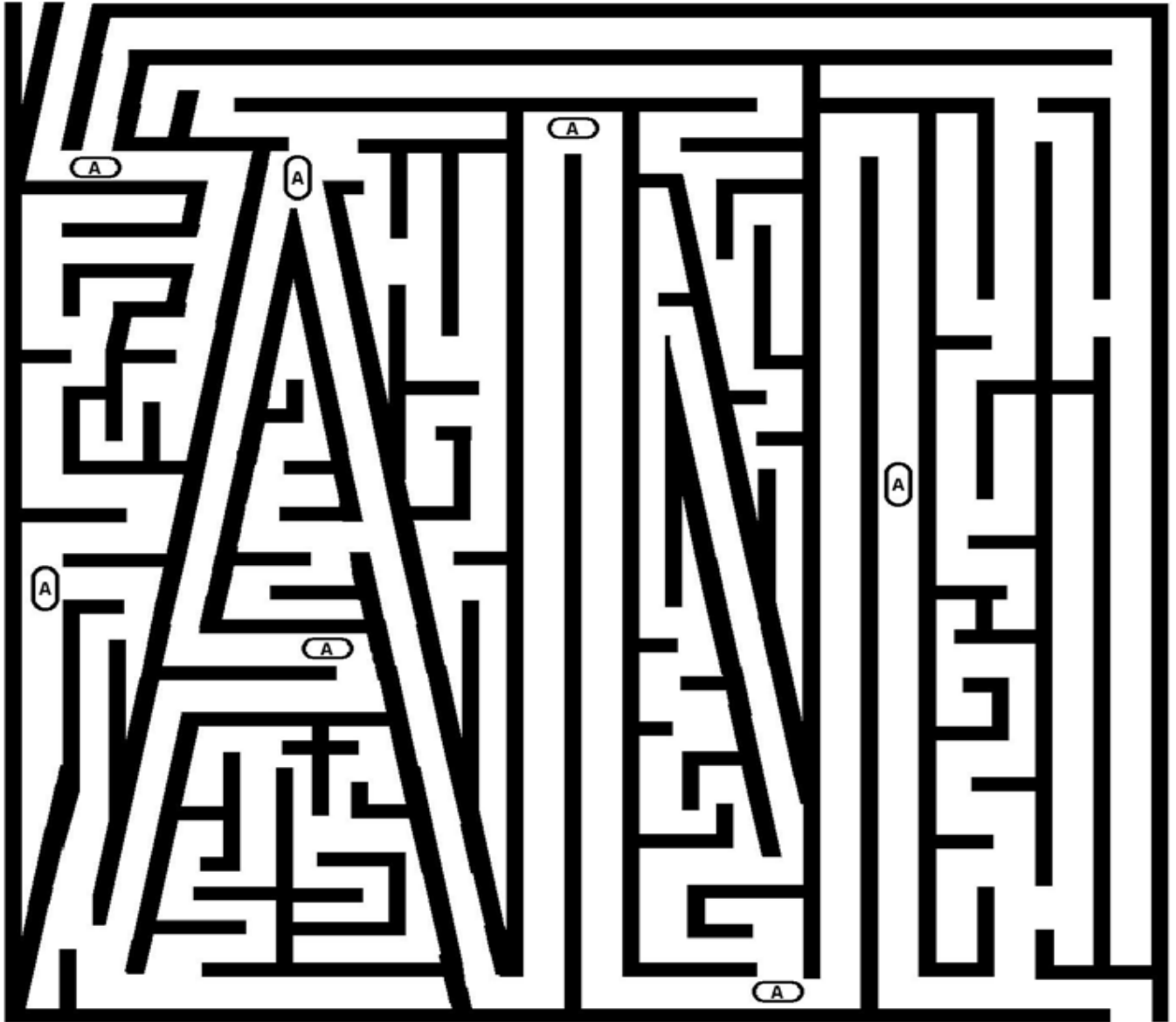
Can you circle the **5** bacteria hidden in this picture? Next, put an **X** on the **5** hidden viruses, antibiotics will **NOT** work on these infections!



Antibiotic Maze

Follow the antibiotics through the maze, and make sure to cross each one!

START 



FINISH 😊

WORD SEARCH

A	G	F	H	J	W	E	E	U	S	I	N	F	E	C	T	I	O	N	R
E	E	U	Z	Y	H	P	N	O	A	S	E	R	P	H	A	R	Y	A	E
G	Y	N	O	A	G	E	E	I	D	Y	A	L	M	A	P	Y	Z	P	D
E	N	G	I	N	J	C	R	B	E	H	W	A	T	Q	G	I	T	A	L
U	K	I	Y	V	E	N	R	K	O	T	A	S	U	R	I	V	U	I	S
Z	E	C	W	T	I	A	Z	E	N	R	S	G	K	F	M	P	S	V	A
B	Y	A	U	R	L	T	F	I	E	O	C	T	O	Z	V	E	L	O	E
U	J	V	I	C	T	S	O	U	R	A	T	I	N	M	H	Q	O	Y	X
F	H	E	Y	K	L	I	A	M	O	B	V	S	M	E	J	A	A	U	Q
O	N	T	P	A	R	S	I	E	M	E	T	Y	A	U	R	I	N	G	B
Z	U	B	A	C	T	E	R	I	A	E	D	R	G	F	I	B	A	G	K
A	C	U	T	E	H	R	X	P	A	L	L	E	T	S	J	E	N	H	R
K	X	I	H	B	E	R	N	I	E	K	T	M	A	L	I	N	T	D	E
C	H	R	O	E	R	B	Y	E	L	I	O	W	T	S	A	D	I	T	D
E	W	R	G	E	D	A	Z	U	S	L	X	C	Y	N	A	E	B	P	O
W	O	R	E	D	L	K	I	A	R	I	G	O	L	U	C	A	I	W	O
V	E	E	N	Z	U	L	R	P	Q	W	S	E	Y	X	L	L	O	T	F
S	U	Z	P	E	H	A	N	D	W	A	S	H	I	N	G	P	T	R	E
R	O	J	O	A	P	G	P	T	T	E	J	R	A	N	I	O	I	V	D
U	I	G	R	E	T	Y	G	Z	V	B	E	E	Q	I	C	L	C	D	A

Find these hidden words!

Bacteria

Virus

Parasite

Fungi

Antibiotic

Infection

Resistance

Pathogen

Microbe

Handwashing

Microorganisms Word Matching

- A. Bacteria
- B. Protozoa
- C. Virus
- D. Fungi

- ___ I can grow in nature, on food, or inside your body. I'm sometimes called nature's recycler, but I can also cause trouble.
- ___ I can be helpful or hurtful for the human body and live almost everywhere. Your doctor may give you antibiotics to help your body fight me if I'm making you sick.
- ___ I can't live on my own and need to sneak inside your body and make more of myself to stay alive.
- ___ I'm considered "animal-like" because I can move around and eat food. My cell structures are also similar to animals and plants. I like moisture and often spread disease through contaminated water.

Unscramble the Jokes

What can you catch, but not throw? A ____ **LOCD**

No matter how popular they get, antibiotics are never going ____ **ILRVA**

What's a germ's favorite game? Hide and ____ **EZESNE**

What is the opposite of ANTI-biotics? ____ **EULCN-biotics**

✦ Did you know there are more microbes on Earth ✦
than all the stars in the sky?