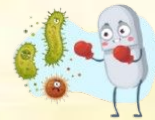
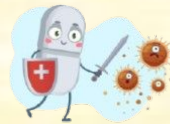


ANTIBIOTIC RESISTANCE



Biology

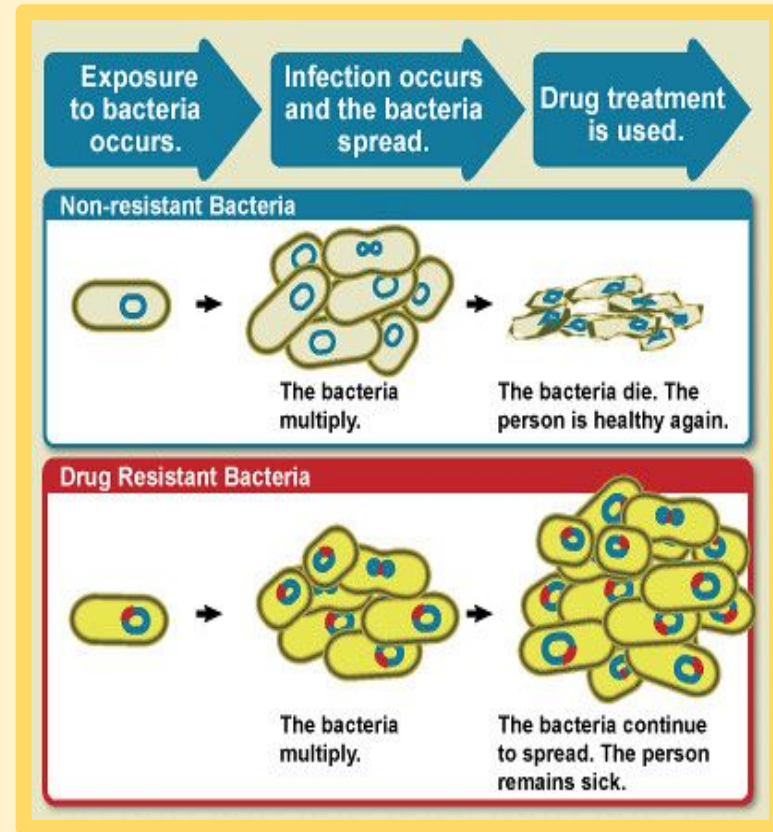
ANTIBIOTIC RESISTANCE



ANTIBIOTIC RESISTANCE

WHAT IS IT

An occurrence/event where bacteria becomes resistant to antibiotics designed to kill them, making treatments less effective.



ANTIBIOTIC RESISTANCE

HOW IT HAPPENS..

- Happens when antibiotics can't stop or kill bacteria and its life cycle successfully **Causes infections to become more difficult to treat**
- Resistant bacteria doesn't just appear, during the treatment using antibiotics **there will be some bacteria that won't be affected by the treatment this is due to the mutation or selection (survival of the fittest)**
- Only having resistant bacteria left leads the bacteria to reproduce passing on their resistance to a whole new population of bacteria
- This new generation of bacteria will be unaffected by the antibiotic
Which means there will be bacteria that can't be killed by

antibiotics

THIS IS A PROBLEM. IT BECOMES VERY HARD TO TREAT THE INFECTION.

ALTERNATIVE TREATMENTS AFTER ARE LESS EFFECTIVE OR MORE EXPENSIVE

*****RESISTANT BACTERIA WOULD NATURALLY EVOLVE**

Antibiotics- Used to kill **Bacterial Infections.**

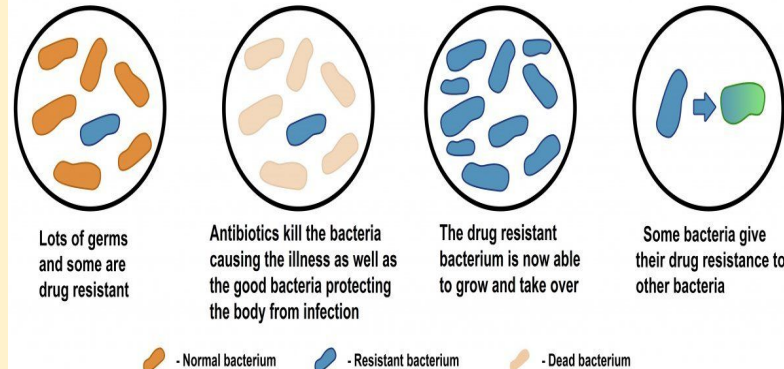
Survival of the fittest

Resistant bacteria would survive leaving non resistant to die.

Non resistant dies leading more resistant bacteria to ONLY spread.

This is why it's important to not misuse antibiotics

How antibiotic resistance happens



ANTIBIOTIC RESISTANCE

ACTIVITY

- Roll the dice and depending on what number you roll that's what your going to do.
- Your going to start off with your BLUES first. Say you ran out of the blues from your plie then your going to move on to the yellow and then red.
- Keep rolling until you have nothing left in your pile.

***After each roll your going to just add ONE of each color to your pile of M&M'S but whenever there is no more of a color then you stop adding that color to your pile.**

You roll	What happened	What to do
1,3,5,6	You took the antibiotic on time, so bacteria are being killed!	Remove 5 disks: remove all of the blue disks first then the yellow, then the red.
2,4	You forgot to take the antibiotic.	You don't do anything.

Toss Number	Least Resistant Bacteria (blue)	Resistant Bacteria (yellow)	Extremely Resistant Bacteria (red)	Total
Initial	13	6	1	20
1				
2				
3				
4				
5				
6				
7				
8				