## Antibiotic-resistant stuck in the mud-chain tag

**Difficulty:5 | Ages: 11-16 | Scientific *|* Physical | Time: 10-20 mins**

### Learning objectives

* Antibiotics are special medicine that only work on bacteria
* Bacteria are becoming resistant to antibiotics
* We can help prevent more bacteria from becoming resistant to antibiotics by using them responsibly

Children playing Antibiotic-Resistant
Stuck in the Mud-Chain Tag 

**Pictured: Children playing Stuck in the Mud-Chain Tag**

### Equipment

* High visibility jackets, coloured t-shirts, Stickers or arm bands

### Activity instructions

#### Game 1

1. This game plays like stuck in the mud with a twist. Choose one child to represent antibiotic-resistant bacteria, this child wears the high visibility jacket or a coloured t shirt.
2. Depending on the size of the group choose 2 -4 children to be Antibiotic-sensitive bacteria. Give these children an identifier such as a different colour t-shirt, arm bands or stickers.
3. The rest of the group represent antibiotics until they are caught or tagged by a child who is bacteria. Once they have been tagged they represent a person with an infection.
4. The role of the children who are bacteria is to infect the other children by tagging them
5. The role of the children who are representing antibiotics is to treat as many of the ‘infected people’ before they have all been tagged.
6. If a child is tagged by the antibiotic-resistant bacteria they have to stand with their legs closed, if they are tagged by antibiotic-sensitive bacteria they stand with their legs open.
7. The children cannot be set free (treated by an antibiotic) if their legs are closed, they must remain standing for the rest of the game. Those with their legs open can be set free (i.e. treated) if an antibiotic goes through their legs.
8. You can see how quickly bacteria can become resistant and once a child has been tagged by the antibiotic resistant bacteria you cannot reverse it.

#### Game 2 (chain tag)

1. Play the game again but this time, it incorporates chain tag.
2. At the same time as infecting people, the antibiotic resistant bacteria can also make the antibiotic-sensitive bacteria become resistant by tagging them (chain tag), this means tagging and holding on to each child in the chain.
3. Anybody the chain tags (infects) must stand with their legs closed and cannot be set free.
4. If the chain tags another antibiotic –sensitive bacteria, they will also become resistant and become part of the chain.
5. Soon there will be no antibiotic-sensitive bacteria and everyone who is infected will be standing with their legs closed unable to be set free (treated) by antibiotics.
6. This again shows how quickly bacteria can become resistant and also that bacteria can share their resistance ‘super power’ with other bacteria.