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| <p>Bread Mould</p> <p>The bacterium <i>Penecillium Notatum</i> causes blue-green mould on bread. This is the mould that is used to make the antibiotic penicillin.</p> | <p>Algal Blooms</p> <p>An algal bloom is a large mass of algae that grows in the sea where fertiliser has been washed out of the soil or where sewage has been released. The algae limits the light available to ocean plants and damages the environment.</p> | <p>Measles</p> <p>Measles is caused by a virus and can be caught by breathing in infected water droplets in the air. It is one of the most highly infectious viruses known and causes high temperatures and a red rash all over the body.</p> |
| <p>Sleeping Sickness</p> <p>Sleeping sickness is caused by a protozoa that is carried by the tsetse fly. When somebody is bitten by a fly the person can become infected. The disease affects the brain and kill them if they are not treated.</p> | <p>Fizzy drinks</p> <p>Fizzy drinks are often made with citric acid which, in turn, is made by feeding sugar to the fungus <i>aspergillus niger</i>. Citric acid has a sour taste and stops fizzy drinks going bad.</p> | <p>Stomachs of cows, sheep and goats</p> <p>The stomachs of some herbivores contain a fungus that breaks down the fibrous parts of plants like grass into nutritious substances that help keep the animals healthy.</p> |
| <p>Pea and Bean Roots</p> <p>The roots of peas and beans have nodules on them which contain bacteria that can turn nitrogen from the air into substances that fertilise the plant.</p> | <p>Athletes Foot</p> <p>Athletes foot is caused by the fungus <i>trichophyton rubrum</i>. The sweaty, warm places between the toes provide a perfect place for the fungus to grow. It causes itching and flaking skin.</p> | <p>Amoebic Dysentery</p> <p>Amoebic dysentery is caused by a protozoa that loves in water. It is caught if you drink infected water or eat food that has been washed in infected water. The protozoa can live in people's intestines.</p> |
| <p>Fungi for decay</p> <p>Some fungi play a very useful role in recycling dead plants and trees. They invade the dead plant matter and break it down into useful nutrients that can fertilise other plants.</p> | <p>Quorn</p> <p>Quorn is made from a fungus called <i>fusarium venenatum</i> that grows like a fibre. Quorn is used as an alternative to meat.</p> | <p>Algae</p> <p>Algae are more common than you think. They are responsible for producing three quarters of the oxygen in the atmosphere through photosynthesis.</p> |
| <p>Algae for Jelly and jam</p> <p>Jelly, jam and ice cream are often thickened with an extract from seaweeds which are a large type of algae. Seaweeds are not microbes but belong to the same family as microscopic algae.</p> | <p>Cheese</p> <p>Bacteria is responsible for helping flavour develop in cheese. It is also used to help curdle the milk so the solid parts of the milk that are used for cheese.</p> | <p>Malaria</p> <p>Malaria is a disease that is spread by mosquitos. The mosquitos are infected with the malaria protozoa which enters the blood stream of people bitten by infected mosquitos. Malaria is a big problem in tropical countries.</p> |

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| <p>Conjunctivitis</p> <p>Conjunctivitis is a virus that causes sore eyes. To prevent catching conjunctivitis you should always wash your hands after going to the toilet.</p> | <p>Salmonella bacteria</p> <p>Salmonella is a bacteria that causes food poisoning. It grows particularly well on raw meat, which is why you should always keep raw meat separate from other foods.</p> | <p>Composting Bacteria</p> <p>Compost is made when bacteria break down dead plant matter, turning it into fertiliser for other plants.</p> |
| <p>Yoghurt</p> <p>Yoghurt is made by adding a culture of bacteria to milk. The bacteria turn the milk into yoghurt. Yoghurt is very useful in helping people stay healthy, for example helping keep the balance of bacteria in the gut.</p> | <p>Potato Blight</p> <p>Potato blight is caused by the fungus phytophthora infestans. In 1845 it infected the potato crops in Ireland. Many people died of starvation and many others left Ireland forever and emigrated to countries like America.</p> | <p>Plant Roots</p> <p>Some kinds of fungus can grow around the roots of certain plants, helping them take up water and nutrients from the soil.</p> |
| <p>Yeast in brewing</p> <p>Yeast is used to make beer. The yeast ferments grains like barley or wheat that are mixed with water or other ingredients like hops. The alcohol produced by the yeast stays in the liquid and the carbon dioxide makes the beer fizzy.</p> | <p>Chicken Pox</p> <p>The varicella zoster virus causes chicken pox. It causes itchy spots. Once you have had chicken pox it is unlikely you will ever get it again.</p> | <p>Soy Sauce</p> <p>Two types of mould, <i>Aspergillus oryzae</i> and <i>Aspergillus sojae</i>, are used in the making of soy sauce. Soya beans are the main ingredient and the moulds ferment the beans, rather like yeast ferments wheat or barley to make beer.</p> |
| <p>Vinegar</p> <p>Vinegar is made when bacteria feed on alcohol and turn it into acetic acid. This acid gives vinegar its sour taste and makes it very useful in preserving food.</p> | <p>Methane producing bacteria</p> <p>Some bacteria, can produce methane from waste material. Cows produce methane in their guts and landfill sites and marshes are places where these bacteria live. The gas can be dangerous and cause explosions.</p> | <p>Sewage treatment</p> <p>Bacteria are used to break down sewage. Once the solids have been removed, protozoa are used to eat the harmful bacteria that can remain in the water so that the water becomes safe to drink again.</p> |
| <p>Antibiotics</p> <p>Most antibiotics are made from bacteria, fungi and moulds that make a substance that kills other bacteria. To make the medicines the mould or fungus is grown in a laboratory and the useful substance is extracted.</p> | <p>Mumps</p> <p>Mumps is an illness that is mostly found in children and is caused by a virus. It makes glands in the body, for example in the neck, swell up. It is spread by coughs and sneezes.</p> | <p>Colds and flu</p> <p>Colds and flu are caused by viruses. People with colds and flu usually have sore throats, coughs and blocked noses. They can be avoided by throwing used tissues away and keeping hands clean.</p> |

| <u>Micro-organism</u> | <u>Positives</u> | <u>Negatives</u> | <u>Extra information</u> |
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| Bacteria | | | |
| Virus | | | |
| Fungi | | | |
| Algae | | | |
| Protozoa | | | |