

## Citizenship

**Rights** – Something you can claim or which is due to you. Rights can be given by law (legal rights), by what is thought to be correct in a specific role or situation (moral rights), or apply generally to human beings regardless of any particular set of laws or their membership of any particular society (human rights). Example: Every person has a right to life.

**Responsibilities** (also called **duties** or **obligations**) – Recognising that other people too have rights, there are reciprocal things we must do to observe their rights. Again, these arise from law, morality, and exist in a general form applicable to all

## Science

**Disease** – A named illness or sickness, with specific symptoms. Disease may result from poor diet or from infection (see *infectious disease* below)

**Symptoms** – The outward signs of a disease; for example a fever, or coughing or a feeling of muscle weakness

**Micro-organism** (also called **microbe**) – Living organisms so small they cannot be seen, including bacteria, viruses, fungi, algae and protozoa. Bacteria can be as large as 10 micro-metres (0.000 001 m) and viruses as small as 50 nano-metres (0.000 000 05 m). Like all other organisms they feed, grow and reproduce.

**Infectious** (or **contagious**) disease – A disease caused by a microbe (popularly called a *germ*), which can be passed from one host to another through fine water droplets in the air, by contact or through food and drinking water. **Contagious** implies transmission by direct contact.

**Virus** – A micro-organism which is much smaller than a single cell. Responsible for many diseases, including flu and the common cold.

humans. For example, others have a responsibility not to maliciously or recklessly put your life in danger. Citizens also have a responsibility to contribute to the common good. Example: Contributing through taxes to state education.

**Objective** – A viewpoint which is based on generally-agreed truth (correct factual or logical statement)

**Subjective** – A viewpoint based on personal (or group) values (beliefs) and experiences (interests).

**Controversial** – An issue or statement about which people have conflicting viewpoints.

**Tolerance** – Just as you expect other people to respect your beliefs and traditions, it is essential that you respect theirs. Though this is not always easy, mutual tolerance is the foundation of a liberal society.

**Host (carrier)** – A human (or plant or animal) in which a microbe is active.

**Incubation period** – The time during which the population of disease-causing microbes is increasing inside its host and before the host experiences symptoms of the disease. The host can infect others during this time.

**Immune** – Protected against disease by being able to fight the invading microbe biologically.

**Vaccination** – A method of artificially inducing immunity, by injecting (or ingesting) microbial material (e.g. weakened strains, dead micro-organisms and extracts of micro-organisms) that triggers production of antibodies, without making the individual seriously ill.

**Epidemic** – When the number of people (or animals) hosting the microbe and experiencing disease symptoms rises, making everyone in a population at risk of infection

**Quarantine** – Keeping a host isolated so that the microbe is not able to invade others

**Public health regulations** – Because the ecology of human diseases involves hosts passing dangerous microbes to others, there is legislation to provide controls and services which aim to protect human populations by minimising the risks. For example, certain diseases are *notifiable* (doctors must notify their local health authority of all known cases). Public health includes hygiene regulations and, in urban areas, sewers and sewerage treatment.