

MISSION BRIEFING Vocabulary Terms

Vocabulary terms that are fundamental in understanding the concepts included in Mission One are listed below. Some of these words will be encountered while playing Mission One. Teachers should alert the students to the ability to click on the *hot-linked* words in the game.

agar (AH-gahr) - a jelly-like substance made from seaweed that is used to grow bacteria and fungi.

Anthelmintic (an-thel-MIN-tik) - A remedy that is destructive to worms and used for removing internal parasitic worms in animals and humans.

antibiotic - a drug that inhibits the growth or kills an infectious agent. Antibiotics are effective against bacteria. Some of these antibacterial drugs can be used to fight certain protozoa and fungi as well.

antibodies - molecules produced by a B cell in response to an specific pathogen. Antibodies bind to the pathogen and mark them for destruction.

antifungal medication - a drug that kills or slows the growth of fungus.

antiviral medication - Drugs that interfere with the ability of a virus to reproduce and cause disease.

B cell - a white blood cell derived from the bone marrow. B cells are responsible for the production of antibodies.

bacterium (singular) bacteria (plural) - Very small, unicellular microorganisms that multiply by cell division. Cell is typically contained within a cell wall. Found as spherical, rod, and spiral shapes. Bacteria can spread through direct contact, indirect contact, food, water, air, and animals.

bodily fluids - liquids associated with the body, such as blood, urine, saliva, and mucus from the nose.

control - A standard of comparison for checking or verifying the results of an experiment. It is the part of the experiment in which no change is made.

fungus (singular) fungi (plural) - an organism that has a cell wall and a cell membrane. They include molds (filamentous multicellular type) and yeast (unicellular spherical type). Fungi can spread through direct contact, indirect contact, water, air, and animals.

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helminth - Multicellular worms that can be parasites in the intestine, blood, or body tissue.

Helminths can spread through direct or indirect contact, food, water, and air.

immune system - a complex network of specialized cells, tissues, and organs that defends the body against attacks by disease-causing microbes.

immunity - resistance to a specific pathogen.

infectious agents - Organisms or particles that cause an infectious disease. Bacteria, viruses, fungi, protozoa, helminthes, and prions are infectious agents.

inoculate - a. introduce a substance into a person or animal to produce immunity; b. to pass on a disease from one organism to another by passing on the pathogen.

Koch's Postulates - A set of rules for proving that a microorganism causes a specific disease.

Lymphoid (lim-FOID) organs - organs concerned with the growth, development and deployment of white blood cells (lymphocytes). Examples include the spleen, thymus, lymph nodes, and appendix.

Mucous (MYOO-kuhs) membrane - the moist inner lining of the mouth, nose, vagina, and urethra.

nonspecific defense - immune system response where a white blood cell constantly patrols the body, gobbling up many different types of pathogens.

Pathogen (PATH-o-gen) - disease-producing agents.

Penicillium italicum - *Penicillium italicum* is a type of fungus called a mold. Molds can cause plant diseases and food spoilage. Some molds can be used to make antibiotics.

phagocytes (FAG-uh-sites)- cells that surround and gobble up invading microbes. These cells are used in the nonspecific defense by the immune system.

prion (PRAHY-on or PREE-on) - Extremely small particles that consist only of protein. Prions are resistant to heat and disinfectants and can only be spread through food.

protozoan (singular) protozoa (plural) - Simple, single-cell organisms such as the amoeba and paramecium. Some have flagella or cilia and are capable of rapid movement. Protozoas can spread through food, water, and animals.

specific defense - immune system response where white blood cells mount a directed attack against a specific pathogen.

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virus - Extremely small particles that can only reproduce and survive by taking over a living cell. They consist of nucleic acid enclosed in protein. Viruses can spread through direct contact, indirect contact, food, water, air, and animals.

white blood cells – also known as lymphocytes. Cells of the immune system involved in defending the body against pathogens.