**ACTIVITY: Exploring microorganisms**

**Activity idea**

In this activity, students research and summarise the key features of bacteria, viruses and fungi.

By the end of this activity, students should be able to:

* draw basic microorganisms
* describe the key features of microorganisms related to structure, reproduction and feeding.

[Introduction/background notes](#Introduction)

[What you need](#need)

[What to do](#Do)

Student handout: [Microorganisms](#handout)

[Microorganisms – answers](#Answers)

**Introduction/background**

This activity encourages students to research the key features of microorganisms – bacteria, viruses and fungi – related to structure, reproduction and feeding.

**What you need**

* Copies of the student handout [Microorganisms](#handout)

**What to do**

1. Hand out copies of the student handout [Microorganisms](#handout) and have students complete it, using information from <https://sciencelearn.org.nz>, other websites, text books and library books.
2. Discuss the students’ findings.

**Student handout: Microorganisms**

|  |  |  |
| --- | --- | --- |
| Definition: | | |
| **Bacteria** | **Viruses** | **Fungi** |
| Drawing | Drawing | Drawing |
|  |  |  |
| Structure | Structure | Structure |
|  |  |  |
| Reproduction | Reproduction | Reproduction |
|  |  |  |
| Feeding | Feeding | Feeding |
|  |  |  |

**Microorganisms – answers**

|  |  |  |
| --- | --- | --- |
| Definition: *An organism that is too small to see without the aid of a microscope.* | | |
| **Bacteria** | **Viruses** | **Fungi** |
| Drawing | Drawing | Drawing |
|  |  |  |
| Structure | Structure | Structure |
| * *Prokaryote* * *Single-celled* * *No cell organelles* | * *Not living organisms* * *Not cellular* * *Outer coat surrounding DNA/RNA* | * *Eukaryotic* * *Have cell organelles* * *Some single-celled* * *Some multi-celled* |
| Reproduction | Reproduction | Reproduction |
| * *Asexual* * *By budding* | * *Invade a cell and use that cell’s machinery to produce more copies* | * *Some asexual by budding* * *Some sexual and produce fruiting bodies and spores* |
| Feeding | Feeding | Feeding |
| * *Wide range of nutrients* * *Some invade cells* * *Some decompose matter* * *Some are photosynthetic* | * *Require no nutrition* | * *Decompose matter* * *Some invade living tissue* * *Many have symbiotic relationships with other organisms* |