**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)

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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*
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