**Activity: CLASSIFICATION**



**Cheese microorganisms**

**Section 1: Dichotomous classification**

Scientists use various means to classify microorganisms. The dichotomous key is one of those tools. To create a dichotomous key, one must first observe and determine the characteristics of the organisms. Classification often begins with the overall characteristics of the organisms.

Observe the dichotomous key below



A dichotomous key starts with a **specific question** based on the characteristics of the samples to be classified which must be answered by yes or no.

Your job is to create a dichotomous key to allow the classification of the microorganisms illustrated in the document: **images of cheese biodiversity**. All these microorganisms are used in the cheese industry.

When you have completed your identification key, have a peer evaluate it. Can they follow your reasoning? Do they arrive at the same classification as yours? Modify your key to clarify the steps that caused problems.

**Section 2: Phylogenetic Classification**

Choose a microorganism used in the cheese or food industry

1. Prepare an identification sheet for your organism that includes :
   * The name, in binomial form (genus, species);
   * Its anatomical structure with description;
   * The usefulness, importance and function of the microorganism.
2. Create an identity sheet respecting the criteria of phylogenetic classification by presenting the specific characteristics of each taxon.

* Taxon (kingdom, phylum, class, order, family, genus, species)

**Note:** Depending on the organism chosen and the classification model, some taxons may not be specified for your organism or some subsections may be added. Use only the appropriate taxons.