Lesson Plan: Percentage Concentration

This lesson plan includes the objectives, prerequisites, and exclusions of the lesson teaching students how to express and calculate the percentage concentration of a solution by its volume or mass ratio.

Objectives

Students will be able to

- explain how a solution can be defined as a percentage by volume or mass,
- explain the difference between percentage concentration by volume and by mass,
- recall and use equations to calculate percentage concentration by volume or mass,
- calculate the percentage by volume (% (v/v)) or mass (% (m/m)) of a solution,
- calculate the percentage by volume or mass when two different percentage solutions are mixed together,
- calculate the percentage mass by volume, % (m/v), of a solution.

Prerequisites

Students should already be familiar with

- solutions,
- percentages.

Exclusions

Students will not cover

- molar concentrations,
- mole fractions.