

Lesson Plan Ref: Herbology

Course Ref: ABACWS

Subject: Computer Science

Topic: Data Types

Lesson Title: Herbology

Level: GCSE / A Level

Lesson Duration: 50 Minutes

Lesson Objectives:

Understand various data types that are used within programming and why certain data types are more appropriate over others in certain circumstances.

Summary of Tasks / Actions:

Learners should be initially introduced to the following data types: Integer, String, Boolean, Float, Tuple, and Array. Show what each data type looks like and explain how they are formatted, i.e., String is surrounded by quotes " ", an array is surrounded by square brackets [], and so on. Aim for approximately 15-20 minutes.

Once these concepts have been introduced, learners can start the game. They will need to start the herbology class where they will be given a tutorial to follow. The tutorial will re-cover each data type to help solidify learners understanding. Learners should explore Alexandra Gardens and collect flowers. When a flower is collected, they should create at least 5 variables that use different data types to describe its properties. Ensure a "cornflower", "oxeye daisy", "poppy", and "dandelion" are collected, described, and the placed in the sample area to complete the class. Use 25-30 minutes for this activity.

Upon completion learners should be quizzed on data types. This only needs to be a brief activity, aim for approximately 5 minutes at the end of class.

Materials / Equipment:

The world template file labelled ABACWS.mctemplate is required, import this in Minecraft for Education.

Prerequisites:

Ensure learners understand variables.