Articulate Inheritance:

Inheritance means that a class is related to another class in a parent child relationship. The child class inherits all attributes and methods that are in the parent class. Therefore, the child class has all parent methods and attributes along with its own unique methods and attributes. A parent class will have several child classes that inherit from it, while each child class has additional attributes and methods unique to itself.

A benefit of inheritance is code reuse. When code is written in a parent class that gets inherited for each child class, the parent code only needs to be written once instead of in each child class, or grandchild class, or great grandchild class.

A problem that programmers used to face was using the same code in many places in a program, which, the concept of inheritance, many classes could be simplified by just inheriting the code from a parent class. It also means there are fewer places for errors to be accidentally written in.

Somewhere I know inheritance is used, is in Minecraft. There are creatures in Minecraft that all have shared attributes and methods like moving around, a hitbox, they can deal damage, etc. There will be a parent class with code for these, while child classes have only the code specific to individual creature.

This is a portion of code copied from my program:

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class Breathing : MindfullnessActivity

{

    public Breathing(int duration)

    : base("Breathing", duration,

    "Welcome to the Breathing Activity!\n\nDescription: This activity will help you relax by walking your through breathing in and out slowly. Clear your mind and focus on your breathing.\n\nPrepare to begin...\n") //start message

    {

    }

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This code is from the child class (Breathing) that shows that it inherits from the parent class (MindfullnessActivity). In the constructor, variables are passed in from when the Breathing class is instantiated to both the Breathing class and the MindfullnessActivity parent class.