

# AS and A LEVEL COMPUTER SCIENCE

## KS4-KS5 Transition Guide

## Checkpoint Task Student Activity

### Problem solving and programming

#### RPG character simulator

Planet of Fightcraft wants you to build character classes for their new game.

Each character will have the following things:

- Name
- Type (Barbarian, Elf, Wizard, Dragon, Knight)
- Health
- Power
- Special attack power
- Speed

All characters start with 100 health

Different creatures have different power ratings (B: 70, E: 30, W: 50, D: 90, K: 60)

Different creatures have different special attack power ratings (B: 20, E: 60, W: 70, D: 40, K: 10)

Different creatures have different speed ratings (B: 50, E: 10, W: 30, D: 50, K: 60)



# AS and A LEVEL *COMPUTER SCIENCE*

## Tasks

1. Generate a random name: en-da-fu and el-kar-tuk could be names, so you could make a name generator which sticks together three syllables from 'word banks'
2. Create the generic character class. Test to see if you can create multiple characters
3. Create subclasses corresponding to different types of creature (B, E, W, D & K)
4. Make a program that randomly generates 10 of these creatures to add into a list
5. Make a method in the character class that enables printing out of each character's stats to the console
6. Create a menu system that lets you add and delete characters and print out the list until you are happy with the team
7. Create methods to let you edit any character's stats and add this to your menu system
8. Create a way to save your team to a file and load it up again if needed

