**Week 5 Activities!**

**Getting Started**

- ❏ Pull down your last week's challenges repo, open it up and create a new scene, and call it week 5. Create scripts and scenes as you see fit.

**Contact directory Fun ( 15mins)**

- ❏ Create a Contact script to contain the following data:
  - ❏ Name
  - ❏ Phone number
  - ❏ Address
  - ❏ Email
  - ❏ Preferred name.
- ❏ Create a setup() function that can initialise these values to **pseudo** random values.
- ❏ Assign this script to 3 objects in your scene
- ❏ Now create a ContactDirectory script that can hold references to your three contacts in your scene. Now call your setup function for each of your references to your contact script.

**Let's make a cube drop (10 mins)**

- ❏ On your cube, attach a Rigidbody Component - press play
- ❏ Get a reference to the rigidbody component.
- ❏ Increase the mass of the Rigidbody from 1 to 50.
- ❏ (**optional**)On a UI button press reset the cube to its starting position.
- ❏ (**Bonus**) let's learn how to spawn a cube from a UI Button Press

**Clean Up**

- ❏ Commit and Push your finished work up to your GitHub Repo with an appropriate commit message that details what you have completed this lesson.
- ❏ Show Nathan you have completed all the challenges!

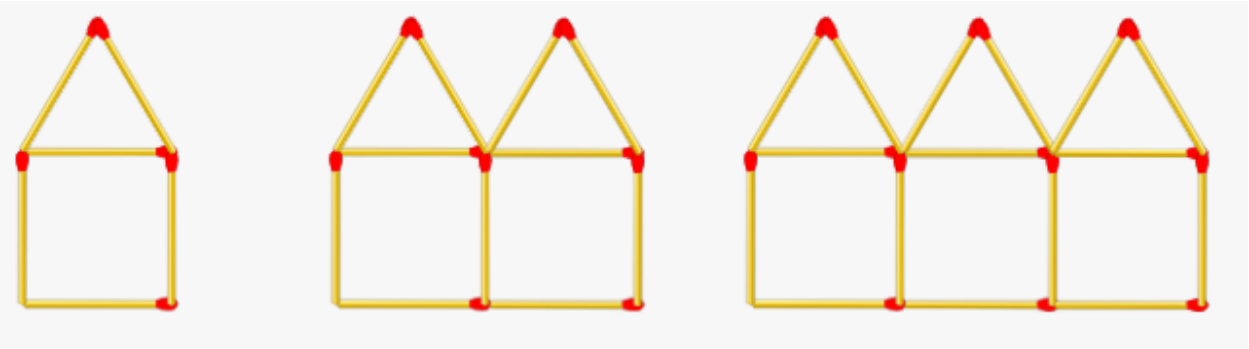
**Extra Challenges**

**Let's colour a cube (10 mins)**

- ❏ Write a script that you attach it to a cube
- ❏ Let's get a reference to the MeshRender component
- ❏ Now make the cube change to a random colour.

**Match Stick Fun**

- ❏ Create a function that takes in a number of match stick houses and returns the number of match sticks required to make those houses.



**Test Data**

- ❏ matchHouses(1) returns 6
- ❏ matchHouses(4) returns 21
- ❏ matchHouses(87) returns 436

**It's over 9000! Part 2 electric boogaloo**

- ❏ Create a script that can hold the following data:
  - ❏ Strength
  - ❏ Intelligence
  - ❏ Agility
  - ❏ Add other stats?
  - ❏ Character Name
  - ❏ Class
  - ❏ Power Level
  - ❏ A function/s to generate some default stats and a random name and random class.
  - ❏ An initialise function.
  - ❏ Any other useful functions, use brief 01 as example!
- ❏ Create a Dungeon Master script, and have this have reference to each of the characters you wish to create for your game, you could represent these with cubes, spheres, cylinders etc.

- ❏ Have the Dungeon Master script set up each of your players with initial values.
- ❏ Have the Dungeon Master script, then “battle” each of the characters until there is a winner.
- ❏ During each “round” detail out what happens i.e. player 01 has a power level of 500 and deals 250 damage to player 02.
- ❏ Let’s create some UML diagrams!