

# THE SCIENCE LAB



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and Simon Mutton.

# Definition of game

- The game is for year 6 to year 7's, catering for the transition from primary school to secondary school. Key stage 2 progressing to key stage 3.
- It's a narrative based learning experience.  
An escaped Yeti, in a science lab, the person has to complete science based tasks to exit each room to escape the Yeti.

# Objective of the game

- The objective of this game is to create a fun way to teach science, its aim is to bring the more average child up to speed with secondary school science and to familiarise them with key stage 3 science. The types of delivery we're using will also cater to this gap between year 6 and 7 because its aimed for use at home.

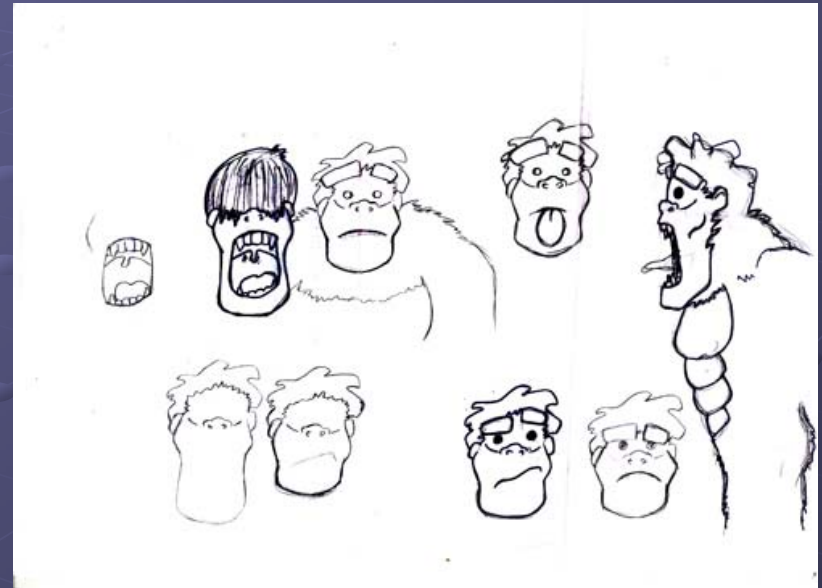
# Research

- We've looked into Key stage 2 and 3 curriculum, the differences in topics covered. Deep research into current classroom experiments in science.
- Rob also has experience working in summer school aimed at helping children that were in-between those highlighted as gifted and those needing extra help.
- Websites like [www.creative-chemistry.org.uk](http://www.creative-chemistry.org.uk) have aided in choosing appropriate tasks for the key stage 2 and 3 age range. It features a number of science related games which were interesting to look at to see their structure and rewards.

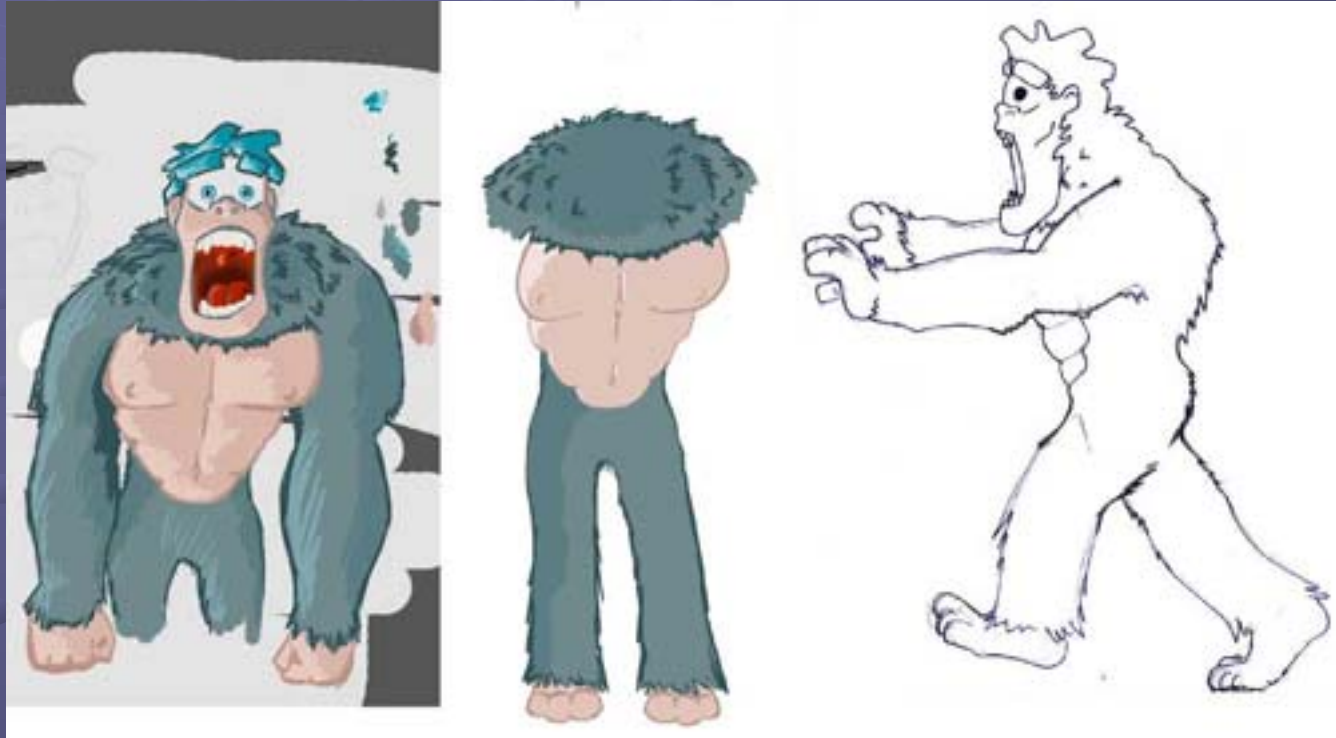
# Game description

- The game sees you as a boy sent down to the science lab to see the scientist there to learn more about science. When he exits briefly you venture to find a caged yeti, and when it escapes you have to get out of the lab. The problem is the doors are all locked and the only way out is to complete science based tasks, in the form of small games, to unlock each door to the next room and eventually escape from the science lab.

# Game design and ideas.



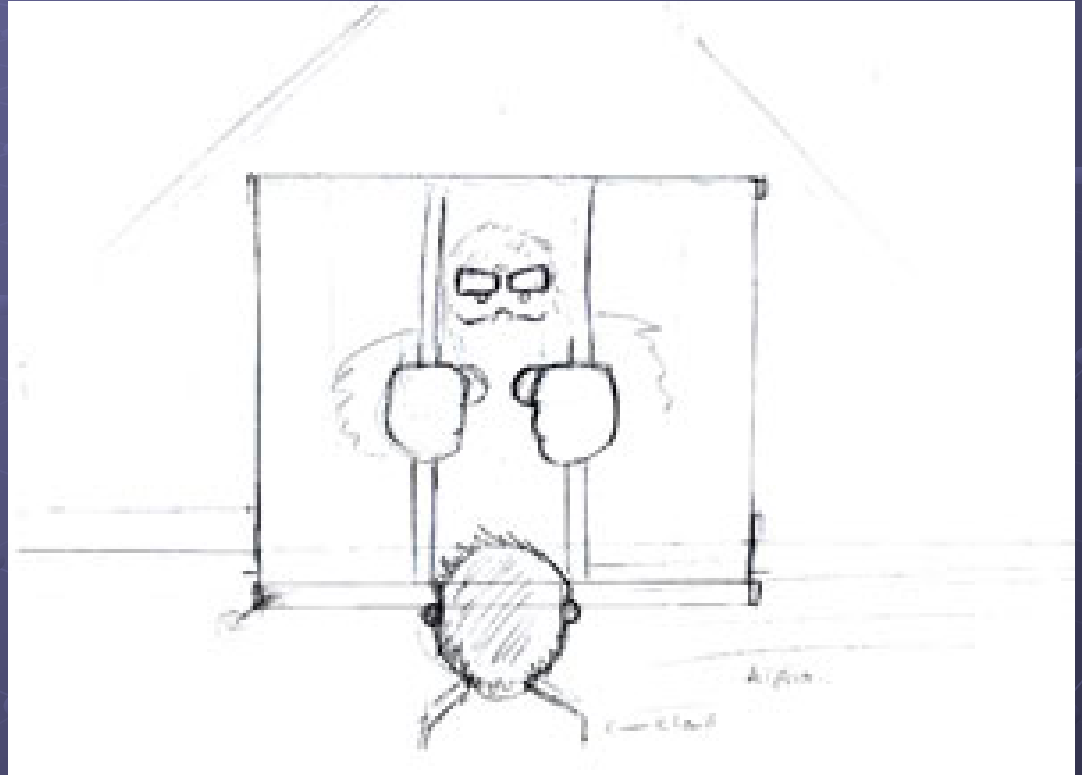
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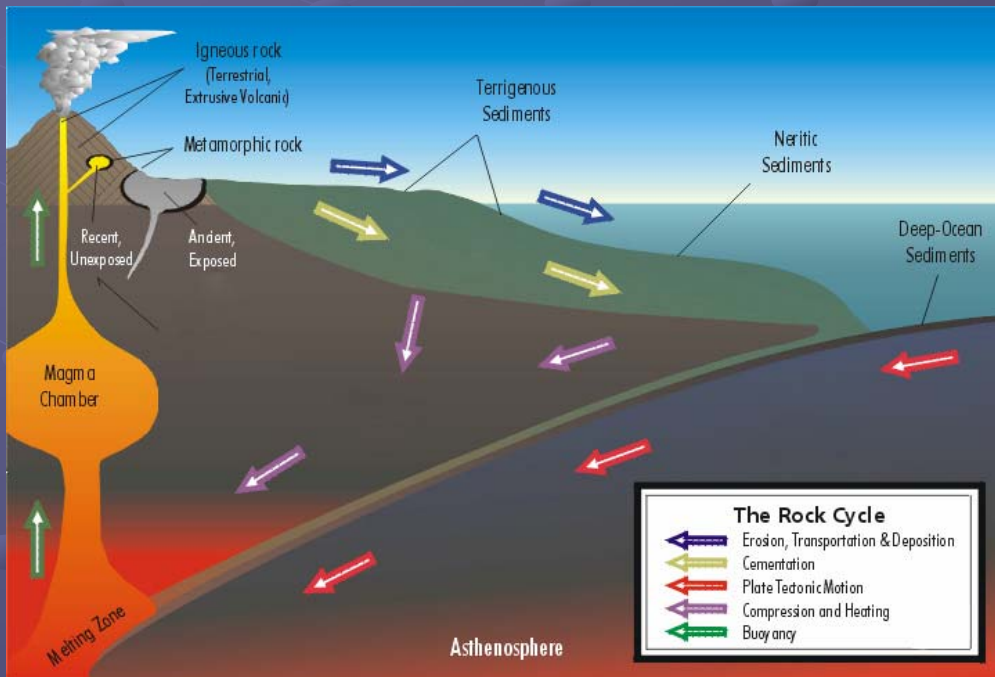


# Game design and ideas.



# Example: Chemistry Tasks

- For Physics, Chemistry, and Biology, each section will have 3 tasks to complete. As an example the chemistry section will feature a game based on the rock cycle, the earth's structure, and hazard symbols.



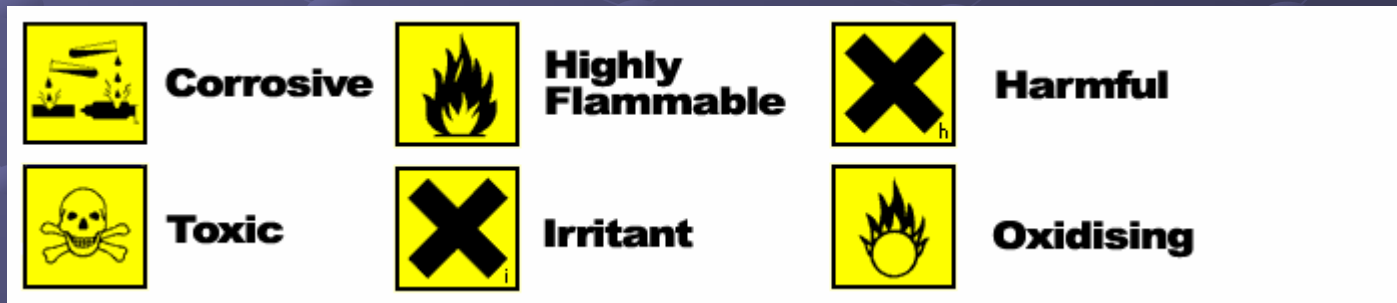
**Igneous**

**Metamorphic**

**Sedimentary**

# Tasks continued...

- As another task example, the user is asked identify correctly several hazard warning signs by viewing a number of potentially dangerous scenarios and assigning each one the correct warning.



# pedagogy

- Social Learning Theory (social cognitive theory).  
This theory is based on the idea that a person can learn from the experience of others through observation and then copy that action to solidify the learned action. For example, being able to learn to accomplish a task by seeing a person fail and finally succeed the task.
- The game play around the yeti and the survival instinct adds to motive and the will to escape! This adds to the motivation of the user, although doesn't follow any researched pedagogy, it will support the social learning theory of the tutorials.

# Delivery

- We've opted for a 920 x 690 display, this is to allow us to cater for a web based flash game and publishing it for CD use. This will let those with and without fast internet connections to use it. Also both of these formats are perfect for home use in the summer between year 6 and 7 for practice, while the CD can be used in schools throughout year 7 as a teaching aid.

# Interaction

- The Interaction for the game will involve implementing drag and drop games and quiz games. We have taken into account the particular age group's current hand to eye co-ordination development and aim to use a snap method to make it easier to drag and drop.
- Also tutorials will use animation or video to stay true to the Social learning pedagogy, and the use of <back and next> buttons to progress through the tutorials will be present.

# Tutorial and tasks concept

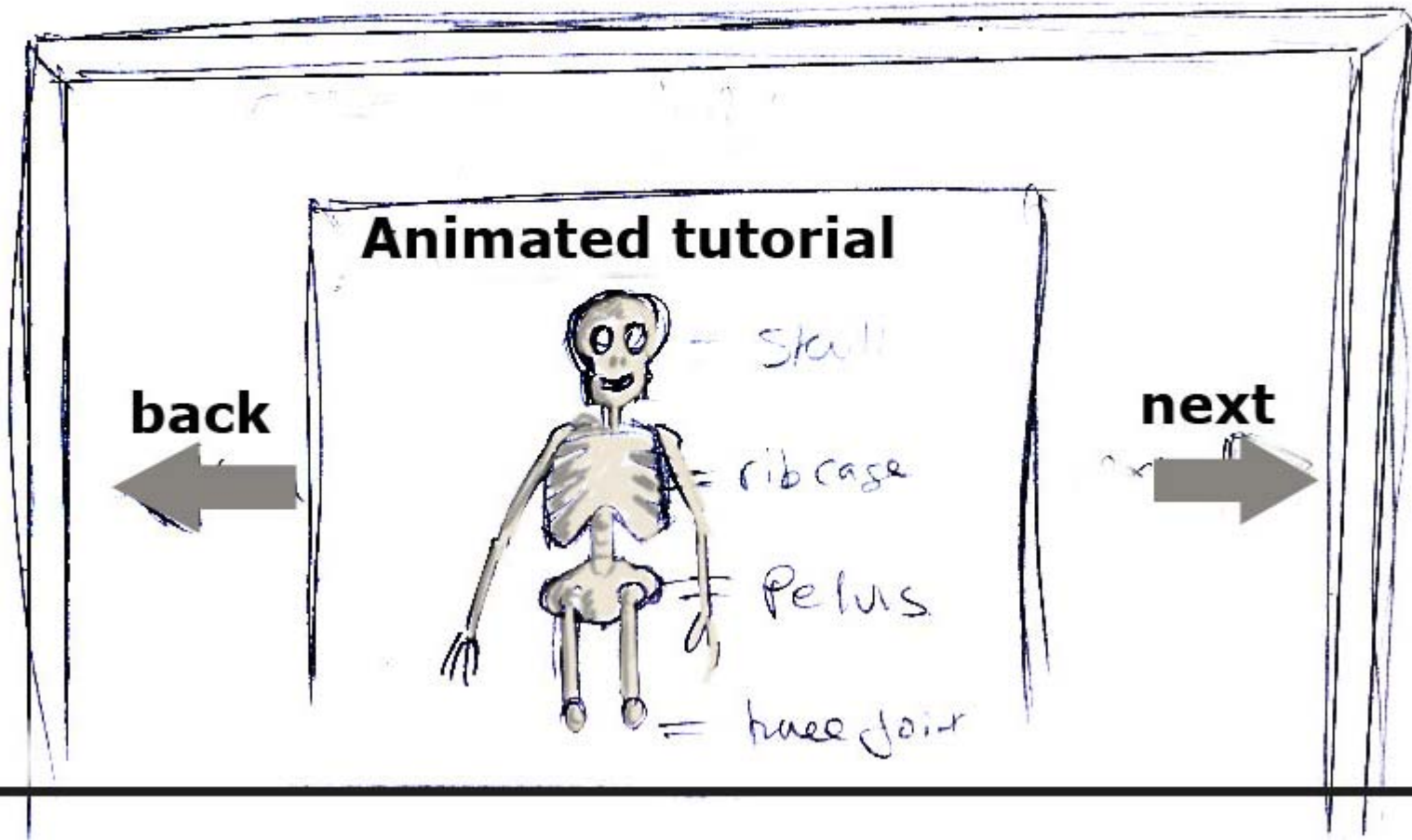
## ENTER ROOM



## TASK

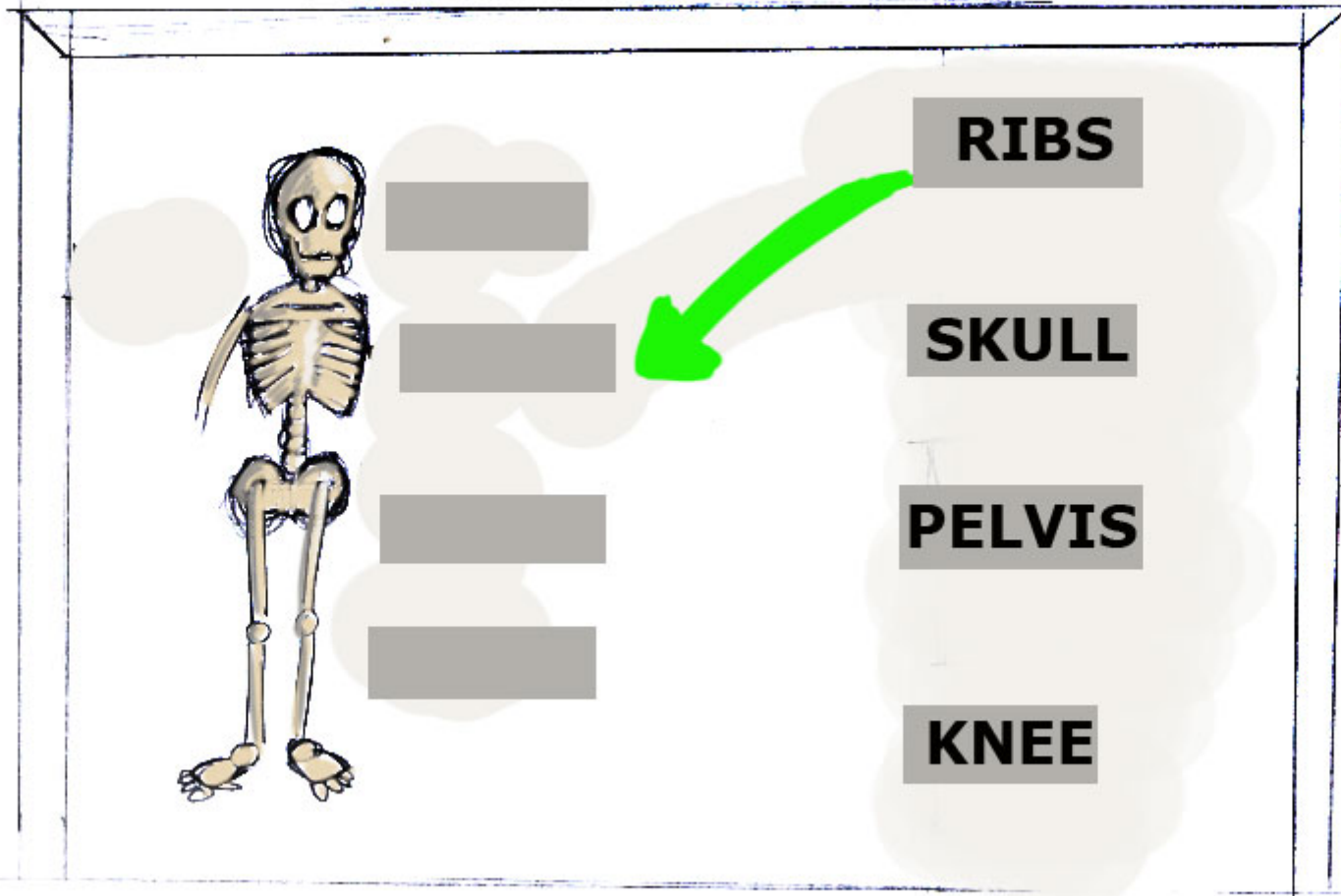
# Tutorial and tasks concept

## TASK TUTORIAL



# Tutorial and tasks concept

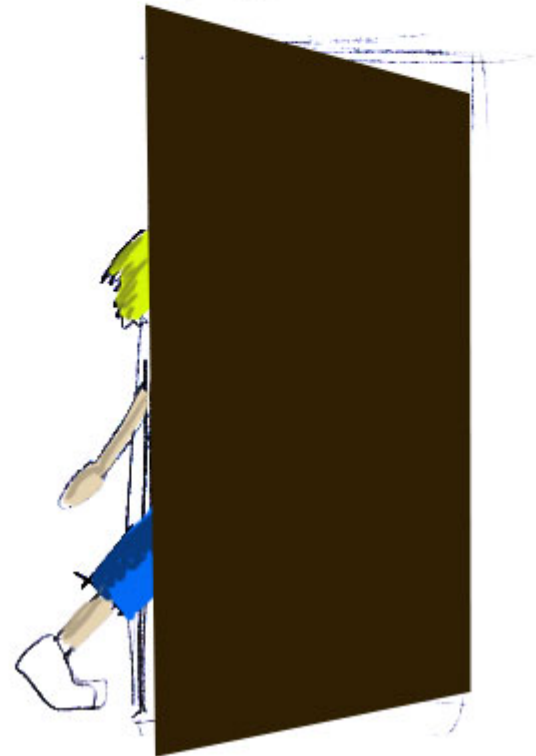
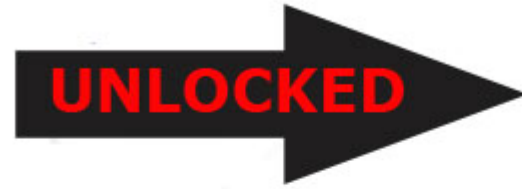
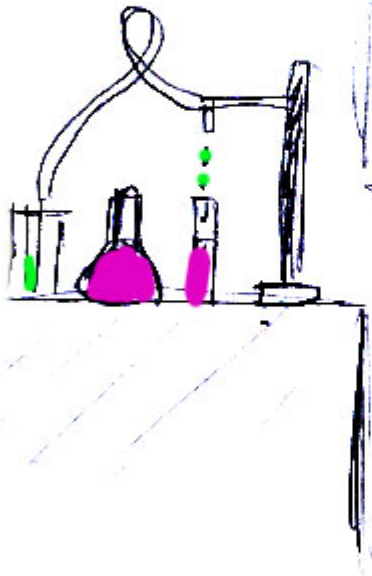
## TASK



# Tutorial and tasks concept

task completed.

**UNLOCKED**



# Testing

- Our aim is to take a working prototype to a group of selected year 7's from Ridgeway and Stoke Damerel secondary school to gauge how effectively the games work. Using this feedback given by the target demographic we can then go back and make changes towards creating the final version.