



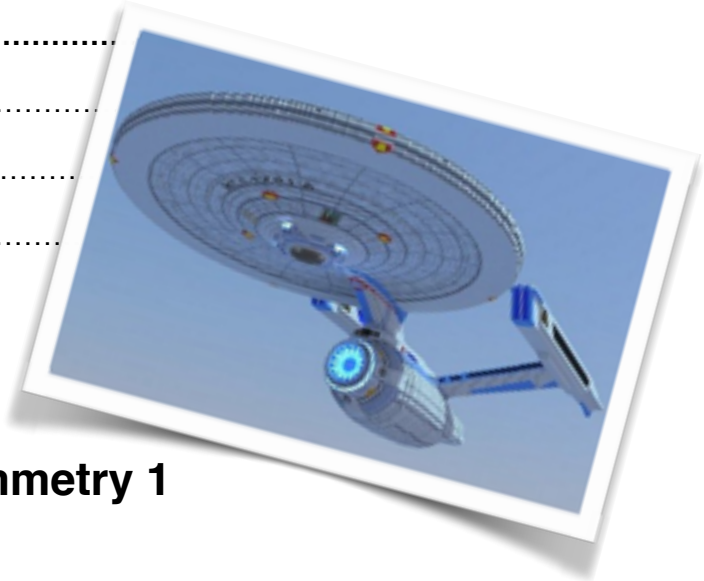
Lesson Activity Sheet

School:

Date:

Class size:

Year group:



Application used: Minecraft

Resources: 15 ipad minis, interactive whiteboard

Topic: Numeracy/Minecraft - Symmetry 1

Overview:

This fun introduction to the topic of symmetry covers everything from basic shapes using one line of symmetry right up to designing symmetrical spaceships just like the Starship Enterprise.

Week 1

Learning Objective/s:

1. To be able to recognise lines of symmetry in a shape or 3D object.
2. To be able to create complex shapes or 3D objects with more than one line of symmetry.

Learning Outcome:

Each child should have a Minecraft world in creative mode within which they have constructed various symmetrical shapes and objects. They will have also started their Minecraft 'Symmetrical Spaceships'.

LESSON OUTLINE

Starter input/activity (10 mins)

Using a volunteer from the class, explain the basic concept of symmetry i.e. the same on both sides of a line as if one half had been reflected in a mirror. You can get the volunteer to demonstrate by making themselves into various symmetrical and non symmetrical shapes e.g. both arms up then yes..one arm up and one arm down then no etc. You can quickly draw a few shapes on the board and look at how they might have more than one 'line of symmetry' etc

Activity (Simple Symmetrical Objects) 10-15 mins

Students are to build a variety of symmetrical objects in Minecraft. Objects could range from letters of the alphabet through to simple statues.

Input (5 mins)

Teacher to play the clip from Star Trek where the Enterprise rises out of the ocean and is drawn in the sand by the primitive alien tribe. Draw the class's attention to how the plan of the Enterprise (ie looking down on it as drawn in the sand)..is symmetrical.

Activity (Symmetrical Spaceship) 25-30 mins

This fun second half of the lesson revolves around the children designing and building their own symmetrical space ships.

Plenary/Reinforcement

Recap on the learning objectives and get visual feedback from the students as to how the lesson went and their level of understanding. Quantifiable feedback may include a show of fingers (5 for understood really well etc) or the use of mini whiteboards is even better as they can quickly draw the answer to a question and hold it up as a class so you can easily see if the answers are generally correct. Remember, just because one child puts their hand up with the correct answer does not indicate that the class as a whole absorbed the learning objectives!

Differentiation and Extension

More able students will have stretched themselves producing a good range of symmetrical shapes and objects at the start of the lesson and moved on to have made a good start on their spaceship designs. (Differentiation by outcome)

Less able children will have produced more simple shapes and objects and will require more 1to1 intervention.

It might be a good idea to team up bright children with less able one when working in pairs.

National Curriculum:

1. Numeracy
2. 3D modelling and graphics

