# Introduction

* The Bridge Challenge is intended to simulate the lifecycle of a civil engineering project through bridges
* The following notes are intended for a session with secondary school aged children. Timings are given for a 1 hour session.
* See the presentation slides for additional delivery notes.

# Set-up and Equipment

* Set the room up with one table per group (with chairs generally facing the presenter).
* Each group should have one of each of the following handouts:

|  |  |
| --- | --- |
| * Activity booklet (A5) | * Client Report Sheet |
| * Development Site Plan |  |

* Students should bring their own pens, pencils and calculators.

# Session Plan

## Introduction – 15-20 minutes

* Divide the class into equal groups of 4-6.
* See the presentation slides and the commentary in the notes section for a suggested introduction structure.

## Exercise – 20 minutes

* Make sure each group is aware of the requirements of this stage – to present which is the best material for the bridge structure, the full project expected costs and time scale of the build.
* Groups usually need some encouragement to make a start – ask them the pertinent questions and get them to fill out the sheet, explaining costs further if required. Encourage them to look at the cost sheet so they include all associated build costs. They will need to calculate the volume of the chosen bridge.

## Results and conclusion – 10 minutes

* Facilitators should encourage each group to calculate their actual cost ready from presentation and discussion.