Broadcasting Maths Project – Lesson Plan 1

Main focus of activity:

- To introduce TV scheduling through the maths curriculum

Learning objectives:

- To be able to work with ordinary numbers and numbers in standard form
- To be able to solve real life problems involving time
- To be able to calculate the best TV programme schedule that will maximise the

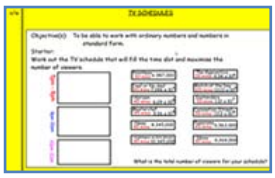
Links to curriculum: Links to the maths curriculum are as follows

- Time
- Standard Form
- Working with money

Activity outline:

Introduction

- The students are split into pairs or groups and must identify the schedule that will fit the available time slots. This is on a prepared flipchart. (see screenshot)



- Some of the programmes are not suitable to be shown before 9pm. This is not stated in the starter activity and is designed to provoke some discussion and debate before moving on to the main activity. The watershed forms a constraint in the main part of the activity.

- There is also some discussion around a balanced TV schedule for the main channels like ITV. For example the main channels must show news.

Main Part of Lesson:

Teaching and Learning:

- The idea is that pupils work in groups and have to decide upon a TV schedule for a TV company. The pupils need to think about many variables within the task to ensure they are successful. They must also present their schedule at the end of the lesson to the teacher and the other students. This can be done by sticking their schedule on to a large piece of card.
- The timings of the schedule must be perfect as no second can be unaccounted on a TV schedule as it would result in a blank screen.
- For a lower ability group the pre-requisite knowledge must be time. Provided they have covered and understand time then they should be able to access this task. Their objectives are to ensure that no second is unaccounted and to make sure the programmes are aired at a suitable time. (eg after the watershed) They also need to ensure that at least one programme from each genre is included to deliver a balanced schedule.
- For a middle group the pre-requisite knowledge is as above but also includes adding numbers in standard form. The task is the same as above but in addition but the pupils must maximise the number of viewers. The viewing figures are given as a mixture of ordinary numbers and numbers in Standard Form. The students must also give their total viewing figure at the end. (In Standard Form) ***It is not stated at anytime if the viewing figures given are an average for the programme or if the figures are related to the length of the programme. A teacher may/may not wish to specify.*
- For the top set the problem is as above but in addition each viewer has been assigned a yield (what they are worth to the advertisers). This means that the largest viewing audience may not in fact make you the most money. All of the criteria from the earlier tasks must also be met.
- The problem can be extended by asking for a certain programme to be fixed in a certain timeslot for example the news.

Plenary:

- Each group must present their TV schedule to their peers. They need to explain their schedule and state their calculated number of viewing figures and/or yield where necessary. The other groups need to check that the all of the criteria are met. The groups can rank the presentations in order as well if the teacher wishes to.