Broadcasting Maths Project – Lesson Plan 4

Main focus of activity:

- To show how a TV signal degrades over time

Learning objectives:

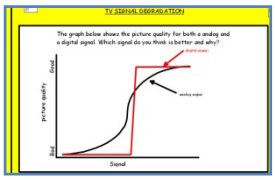
- To be able to interpret various graphs
- To be able to construct graphs showing signal degradation.
- To be able to decide if an area will be able to receive digital television or not.

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

- Interpretation of graphs
- Plotting of graphs
- Loci and Construction
- Communication of decisions via writing. (quality of written communication which now makes up 5% of the new specification Maths Exam)

Activity outline:

Introduction

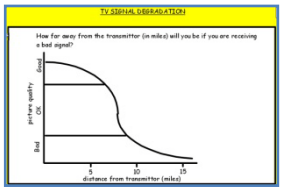


- Students have a starter activity where they have to look at a graph containing both that of an analogue and digital transmission.
- They are also made aware of the fact that the older analogue signal is now being switched off and being replaced by the newer digital signal. The digital switchover (http://www.digitaluk.co.uk/when_do_i_switch)

Main Part of Lesson:

Teaching and Learning:

- Students will need to plot and interpret graphs from the information given. (There are some prepared sheets, although for a more able set you may not want to use these with a more able group)
- Students have to interpret three graphs which will electronically mark.
- Students will have too plot 2 graphs on one set of axis to draw a comparison
- The students do not just have to carry out the construction but they need to apply their findings to decide if an area can receive a broadcast.
- For the final set of questions students are given a map showing the



outline of digital receivers. Students must decide using the given information if certain more remote places will be able to receive digital.

Plenary:

- Is the digital switchover good for everyone?
- Is it fair if some people are left without any TV?

Notes/links

http://www.digitaluk.co.uk/when_do_i_switch

