Coursework practice piece

Level: Key stage 3 (5-8)

Objective: to practise skills necessary to successfully undertake coursework in Key Stage 4, in particular questionnaire writing, data analysis and comparison (primary and secondary data).

Assumed knowledge: data analysis

Time plan:

Lesson 1: Questionnaire writing skills (homework)
Lesson 2: Introduction to coursework
Lesson 3: Write your questionnaire and collect data (homework)
Lesson 4: Begin data analysis (homework)
Lesson 5: Complete data analysis and begin write up
Lesson 6: Complete write up (homework) Look at results of Mori poll.

Lesson 1:

Aim: Establish rules for writing a questionnaire.

1. Initial task:

      PowerPoint One: How to write a questionnaire

2. Make notes: make a list of do's and don'ts when writing questionnaires

3. Undertake some practice questions on questionnaires:

e.g www.cimt.ex.ac.uk/mep/   handlg_data_ch1.pdf

4. Plenary: Each make up a question with an error and then see if rest of class can spot it.

Lesson 2:

Aim: Introduce aims of coursework and what will be required of students.

1. Initial task:

      PowerPoint Two: Introduction to climate change and climate prediction

2. Introduction to coursework:

There seems to be much confusion amongst the general public about what climate change is, what causes it, what effects it might have or be having, and whether we should worry about it. By creating a questionnaire and asking friends, family and colleagues for their opinions our aim is to find out what people really know and what they care about.

3. Give out fact sheets in pairs or groups, and ask pupils to read them thinking about questions to ask.

Lesson 3:

Aim: Write questionnaire and begin collecting data

This could be done in one of three ways:
- Pupils each write a selection of questions, and then pool them as a class to create one questionnaire.
- Pupils create questionnaires within groups or pairs
- Pupils create questionnaires individually.

Begin lesson by creating questionnaires as above.

Before pupils are realised to collect answers discuss:

- How many answers are needed?
- Who should be asked? (Not pupils in class – know more from intro and info sheets?)
- How will data be collected? (Individual questionnaire sheets, or one data collection sheet)

4. Set homework – collect results.

Lesson 4:

Aim: Refresh memory on methods of data analysis and begin to analyse results from questionnaires.

1. Initial task:
   Instruction: make a list of all the different types of data analysis you can't think of.
   Pool answers:
   e.g.

   Mean, median, mode range calculations.
   IQR, LQ, UQ, cumulative freq.
   Pie charts, bar charts, histograms, line charts, etc.

   2. If necessary establish that pupils know how to use the key data analysis techniques, and give them practise.

   3. Pupils should at this point talk the initiative and begin to analyse the results.