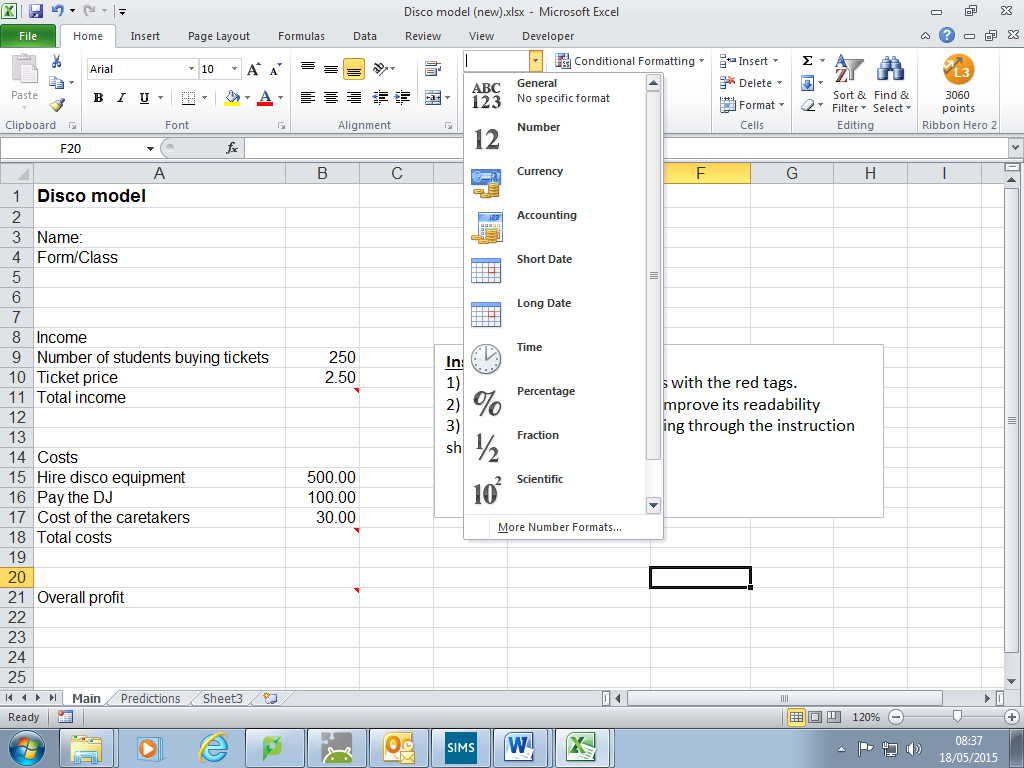
**Disco Model Instructions**

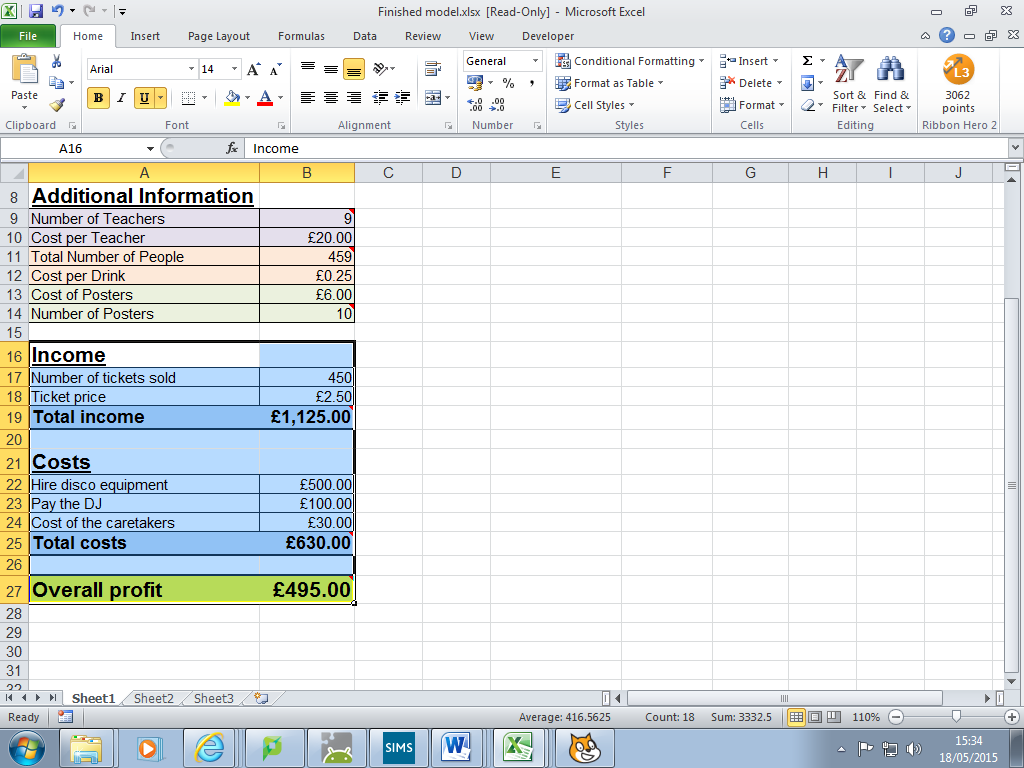
The Disco Model is a spreadsheet model that will help a school plan a disco. The purpose of the disco is to provide a fun activity for students and also to raise some money! When you open the template, it still needs a lot of work! Follow the instructions below to complete it. You will also be asked to use it to answer some questions.

**Objectives: E & C student pathways should complete ALL stages. S should complete stages 1, 2 & 5 and may complete 3 & 4 as well. F should complete 1 & 5 and may complete more.**

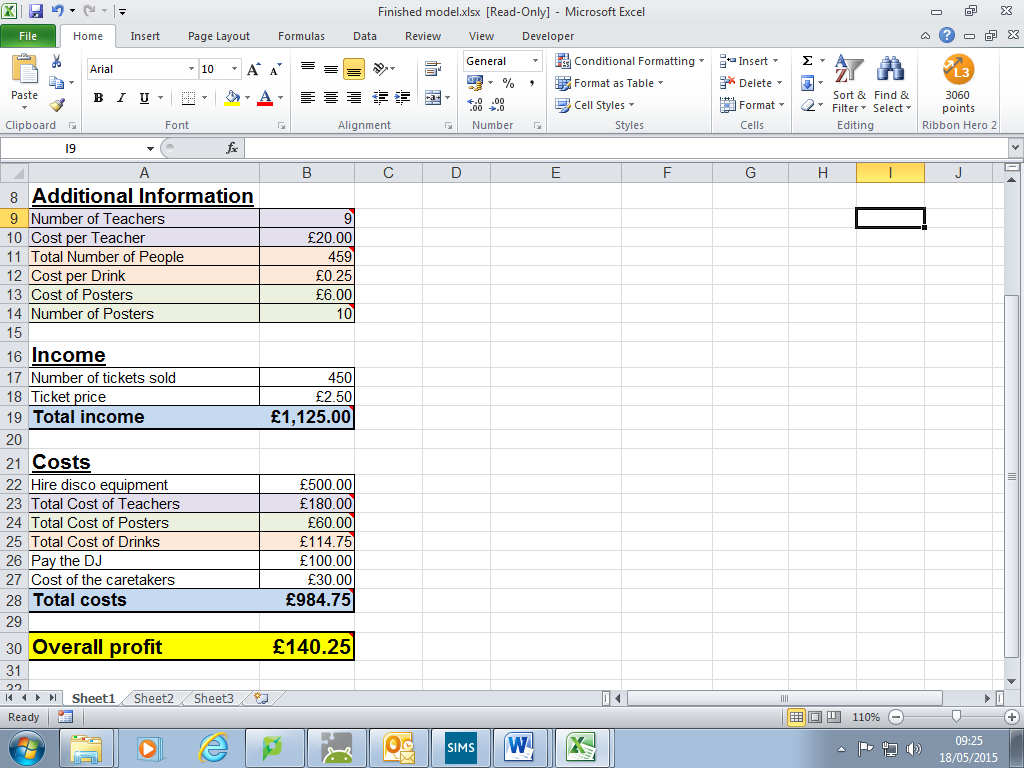
**Stage 1 – Basic structure**

The model has two main sections: **costs** – is all about money being spent; **income** – is all about money coming in. **Overall profit** is the difference between money coming in and money going out.

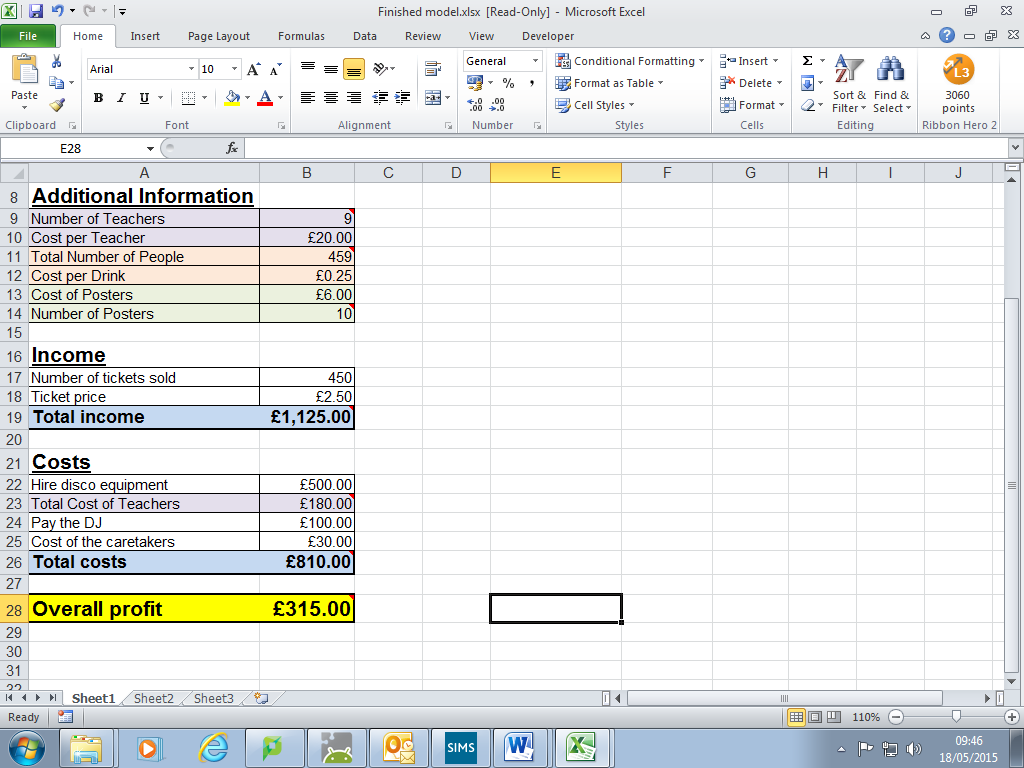
* The three cells with the red tags need formulae to do calculations. If you point your mouse over these cells a message will appear and tell you about what the calculations are. Key in the missing formulae.
* Format the money numbers to currency so that they have pound signs.
* Format the two headings so that they stand out. Format the two sections to make them easier to understand (you could apply borders or colour).

**Stage 2 – Teacher supervision**

Teachers are needed to supervise the disco.

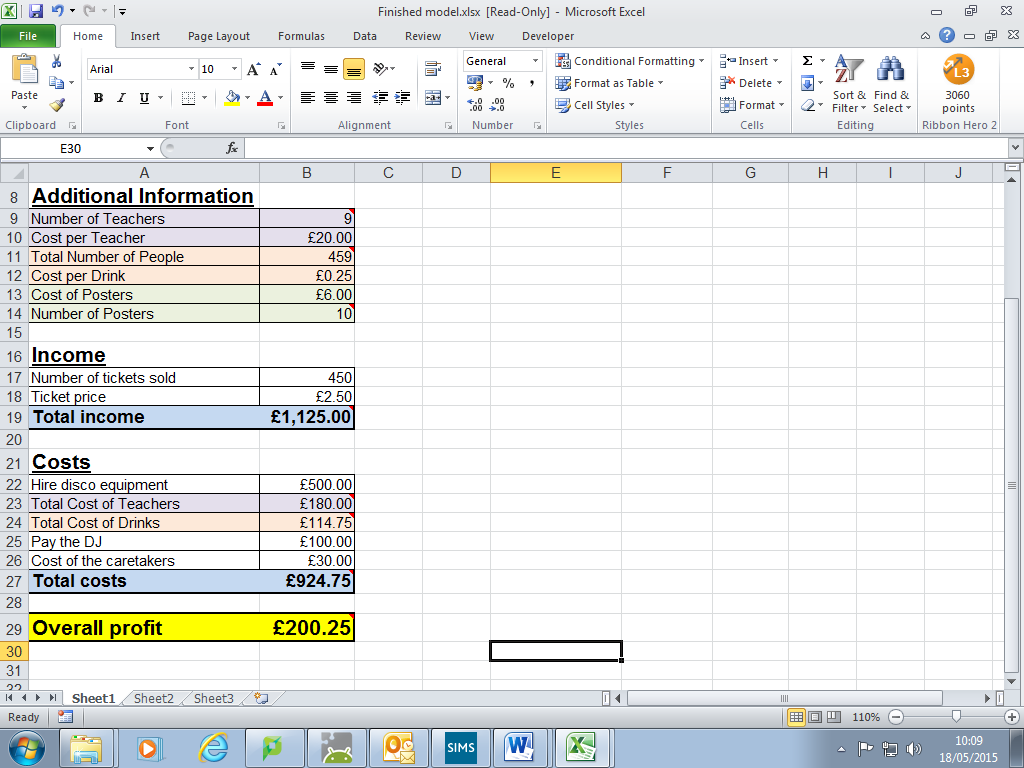
* First, make some space near the top of the spreadsheet. (Select all of the income, costs and overall profit sections. On the edge of the selection, point with your mouse and drag the selected area lower down the spreadsheet.)
* Create a new section in the space above the income section, call it **Additional Information**.
* Key in two new labels for this section called **Number of teachers** and **Cost per teacher**.
* The disco will need teachers to supervise. The teachers have agreed to be paid £20. £20 is a value and can be keyed straight in to the model.
* The number of teachers depends on how many students are going to the disco. The rule is that there must be one teacher for every fifty students. Key in the formula that will calculate the number of teachers (hint: you will need a divide sign (/))

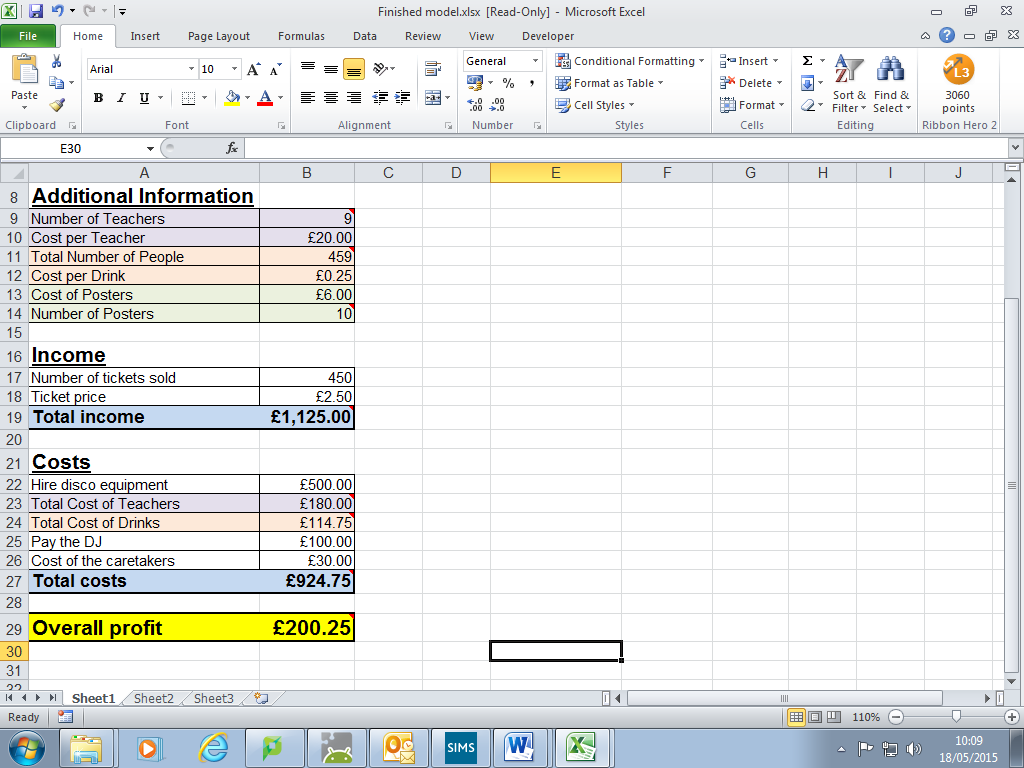
You can now calculate the total cost of the teachers

* In the **Costs** section place a new label **Total cost of the teachers** (you know how to move part of the spreadsheet if you need to make space).
* Enter a formula to calculate the cost of all the teachers.
* Edit the **Total costs** formula to include the **Total cost of teachers.**

**Stage 3 – Free drinks!**

The school has decided to offer a free drink to all students and teachers who go to the disco. It is thought that this will increase the number of students going. However, even though the drinks will be free for students and teachers the school still has to pay for them!

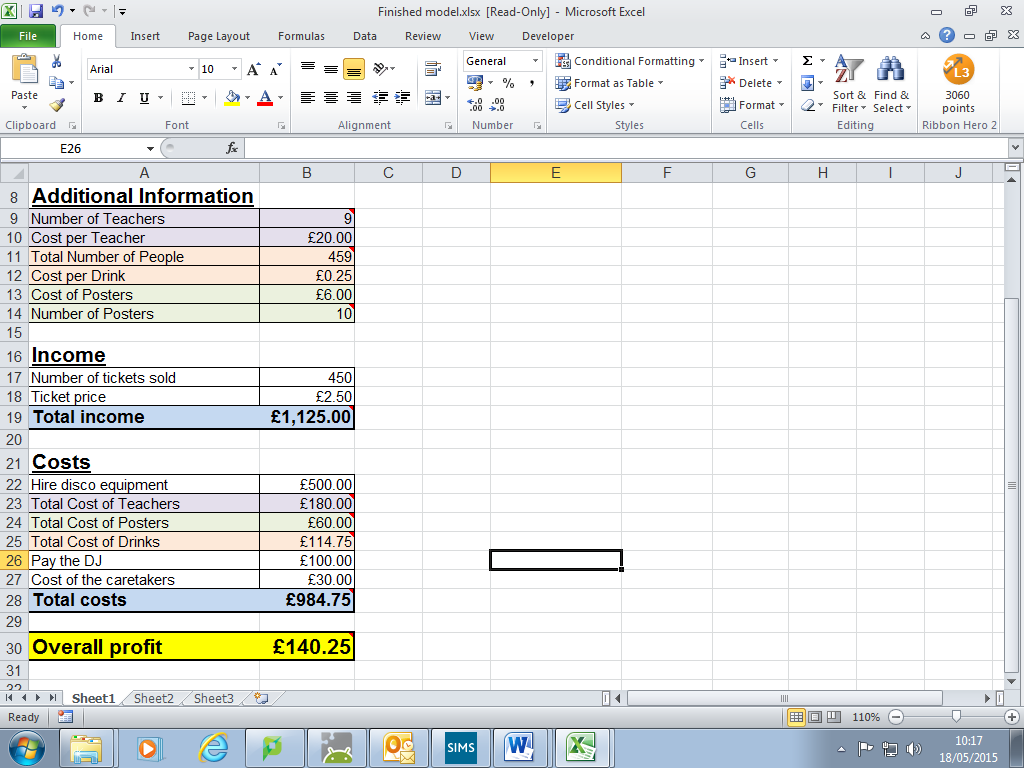
* In the **Additional Information** section place two new labels **Cost per drink** and **Total number of people**.
* The cost to the school of one free drink is 25p. Enter this value into the model.
* Enter a formula to calculate how many people will get a free drink.

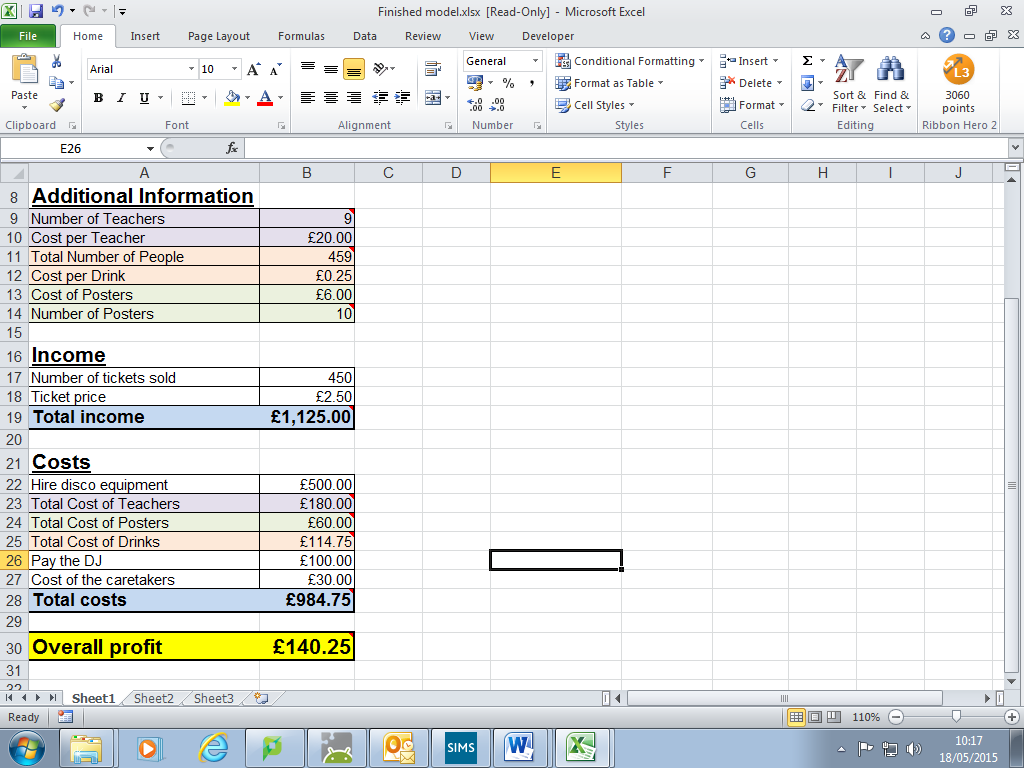
We can now calculate the total cost of the drinks.

* In the **Costs** section place a new label **Total cost of the drinks**.
* Enter a formula to calculate the cost of all the drinks.
* Edit the **Total costs** formula to include the **Total cost of the drinks.**

**Stage 4 – Advertising with posters**

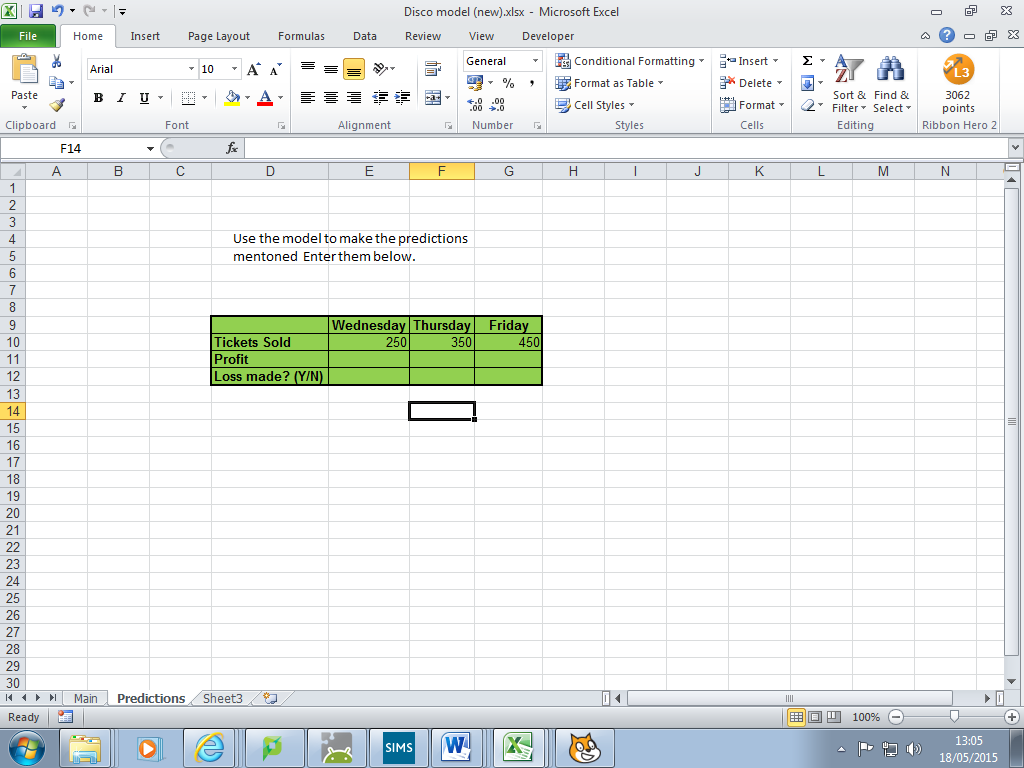
Advertising is likely to increase the number of students coming to the disco.

* In the **Additional Information** section place two new labels **Cost per poster** and **Number of posters**.
* The cost to the school for one poster is £6. Enter this value into the model.
* There will be one poster made for each of the teachers who are supervising, plus one extra for the front of the school. Enter a formula to calculate how many posters are needed.

We can now calculate the total cost of the posters.

* In the **Costs** section place a new label **Total cost of the posters**.
* Enter a formula to calculate the cost of all the posters.
* Edit the **Total costs** formula to include the **Total cost of the posters.**

**Stage 5 – Using the model to make predictions**

The model is now finished and we can use it to make some predictions for us.

* Switch to the Predictions sheet
* Fill in the green grid to show if a profit would be made when the given number of students attend.