10Maths Linear Graphs Assessment

Name: _____   Teacher: _____

The assessment for this topic requires you to produce some form of visual presentation (poster, power point, video, word document) that includes the elements listed in the Success Criteria table.

You are working for a company and your boss asks you to investigate the cost of paying a contractor to do between 0 and 12 hours of work. The boss does not know exactly how many hours of work the contractor will need to do. So you are required to put together a presentation comparing the costs of 3 different contractors over a range of possible hours.

You can choose which type of company you are "working for" and what type of work the contractor is required to do.

A contractor is a person who gets paid for doing a particular job. Examples of different types of contractors you could choose are: a plumber, electrician, stylist, chauffeur, nail technician, horse riding instructor, soccer coach, secretary, website designer etc.

Once you have chosen a "company" to work for and what type of "contractor" you need, you must get it checked by your teacher before you move on with the rest of the assessment.

Success Criteria	Achieved	Merit	Excellence	Completed
• choose a company and the type of contractor needed				
• decide on a call-out fee and an hourly rate for each contractor and write it down clearly (You may want to do some research to find what this type of contractor tends to get paid)				
• your teacher needs to check your choices now! • also discuss what scale you will use on the axes	Teacher signature:			
• draw up a table for each contractor to show the relationship between the number of hours worked and the cost				
• draw up 1 set of axes and then draw an accurate line graph for each contractor to represent the cost of employing him/ her for a range of different hours. (graph must have axes labelled correctly)				
• write an equation for each contractor representing the cost of employing him/ her				
• look at your graph with 3 lines on it and check that there is not 1 contractor who is always the cheapest. If there is, you need to change your contractors' pricing structures so that at least 2 different contractors will be cheapest, depending on the number of hours worked				
• explain why each of the graphs drawn is a straight line				
• explain how each contractor's call-out fee can be seen on the graph				
• explain how each contractor's hourly rate can be seen on the graph				
• look at where 2 of the lines intersect. Explain what this intersection of the two lines shows. Be specific and give details in terms of the context				
• write an interpretation of the graph showing the cost of 3 different contractors for your boss				
• give a recommendation to your boss, explaining which contractor should be hired, depending on the number of hours work required				