



Holiday homework

Student Name: _____

Teacher: _____

Topic: Lighting the World-LED lights

Due date: **Week 1** Term 3 2017

Task

More than 150 years ago, inventors began working on a bright idea that would have a dramatic impact on how we use energy in our homes and offices. This invention changed the way we design buildings, increased the length of the average workday and jumpstarted new businesses. Like all great inventions, the light bulb can't be credited to one inventor. It was a series of small improvements on the ideas of previous inventors that have led to the LED light bulbs we use today.



You are required to investigate on the topic of 'LED- lightbulbs' and present your findings in **a form of a hand written or word typed report.** Your report must not be more than two to three pages long. You can use the questions written below as your headings and/or subheadings. You are free to use your textbook, online resources and any other relevant resources that may assist you in completing this task. However you must use original language and NO copy and paste directly off the net.

Learning outcome

- Physical Science

Cross curriculum priorities –sustainability

1. Introduction – what is LED lighting and how does it work?
2. Describe the evolution of the LED bulb, from red to white. (You will need to discuss the people who developed the various LED bulbs, the problems with developing the blue LED and why it was crucial).
3. Why are LED bulbs important and what are some of their uses?
4. What are some of the disadvantages of LED bulbs?
5. Who were the inventors of incandescent and fluorescent lightbulbs? Compare LED bulbs to these earlier models.

Marking key		Total: ____/20	%
Item	Max marks	Marks obtained	
Q1 – Introduction	3		
Q2 – Evolution of the LED	4		
Q3 – Importance of LED's and some of their uses	3		
Q4 – Disadvantages	2		
Q5 – Comparison	3		
Use of original language – no copy and paste	2		
Referencing	2		

Teacher comments: