

# AMBROSE TREACY COLLEGE

# **Department of Exceptional Learners**

Demystifying Differentiation, in Theory and in Practice

Examples of modifying written tasks

### Science - Different Year Level - Achievement Standard for Year 9

### Selected Parts of the Achievement Standard at year level 9

### YEAR 9

By the end of Year 9, students <u>explain</u> chemical processes and natural radioactivity in terms of atoms and energy transfers and <u>describe</u> examples of important chemical reactions. They <u>describe</u> models of energy transfer and <u>apply</u> these to <u>explain</u> phenomena. They <u>explain</u> global features and events in terms of geological processes and timescales. They <u>analyse</u> how biological systems function and <u>respond</u> to external changes with reference to interdependencies, energy transfers and flows of matter. They <u>describe</u> social and technological factors that have influenced scientific developments and <u>predict</u> how future applications of science and technology may affect people's lives.

Students <u>design</u> questions that can be investigated using a range of inquiry skills. They <u>design</u> methods that include the control and accurate measurement of variables and systematic collection of data and <u>describe</u> how they considered ethics and safety. They <u>analyse</u> trends in data, <u>identify</u> relationships between variables and reveal inconsistencies in results. They <u>analyse</u> their methods and the quality of their data, and <u>explain</u> specific actions to improve the quality of their evidence. They <u>evaluate</u> others' methods and explanations from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences.

### Selected Parts of the Achievement Standard at adjusted year level 5

### YEAR 5

By the end of Year 5, students <u>classify</u> substances according to their observable properties and behaviours. They <u>explain</u> everyday phenomena associated with the transfer of light. They <u>describe</u> the key features of our solar system. They <u>analyse</u> how the form of living things enables them to function in their environments. Students <u>discuss</u> how scientific developments have affected people's lives, help us <u>solve</u> problems and how science knowledge develops from many people's contributions.

Students follow instructions to <u>pose</u> questions for investigation and <u>predict</u> the effect of changing variables when planning an investigation. They use equipment in ways that are safe and improve the accuracy of their observations. Students <u>construct</u> tables and graphs to <u>organise</u> data and <u>identify</u> patterns in the data. They <u>compare</u> patterns in their data with predictions when suggesting explanations. They <u>describe</u> ways to improve the fairness of their investigations, and communicate their ideas and findings using multimodal texts.

# **TEEL paragraphs**

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<u>Body</u>	Include 1 paragraph in the body of your essay. Aim to develop one aspect of your thesis and a discussion in response to the topic.			
Paragraph 1 (subtopic 1)	Topic sentence: State argument that supports your opinion of the question.	Red Dog has a very strong theme of	What is the main theme? Why is this theme a main element of the movie? State that it makes a valuable	
E	Explore/Explain: Develop your argument by explaining it in some depth.  - What specifically do you mean in relation to your	The theme of is seen throughout the film. It is illustrated through	How is the theme shown through the setting?  How is the theme shown through the direction?  How is the theme shown through the setting?  How is the theme shown through the characters?	
E	topic sentence?  - How do we see this point of view broadly and specifically in the film?  Evidence: Include evidence from the film	One example of this is when	through the plot?  How is the theme shown through the production?  Choose a part from the film that supports this theme in relation to	
	to help support your ideas.  - Events, characters, scenery that supports your argument in relation to the topic question.  - Proof from the film that your point of view is correct.	This theme is also evidenced when	setting/character/plot/producti on.  Choose another part from the film that supports this theme in relation to setting/character/plot/producti on.	
L	Link: Finish your paragraph by linking your discussion back to the essay topic. (State this in a different way for each paragraph.)	Based on this evidence it is clear that	Summarise your whole paragraph and use key terms to say why your explanation and evidence support your view of the topic sentence.	

## **Sentence Starters**

Sentence Starters for T.E.E.L.			
Topic	State your point of view that supports your opinion of the topic question.		
Explain	<ul> <li>This illustrates that</li> <li>This shows us</li> <li>This means</li> <li>This results in</li> </ul>		
<b>E</b> vidence	<ul> <li>This can be seen when</li> <li>One example of this is when</li> <li>Evidence of this is found when</li> <li>An example of this occurs at the moment when</li> </ul>		
Link	<ul> <li>Based on this it is clear that</li> <li>This supports the idea that</li> <li>Given the evidence presented, it appears as though</li> </ul>		

# Word banks and cloze activities

1. (	Complete the following	g information about li	ght by filling	g in the blanks wit	h words from the word bank
------	------------------------	------------------------	----------------	---------------------	----------------------------

Many types of objects give off	The	provides
daylight. Lamps and candles provide	e light at	The speed
of light is much	_ than the speed of sou	nd. That is the
reason you see lightning before you	hear	Light travels
in a straight line.		
A line of light is called a light ray. Lig	ght has some interestin	g properties. It can
off surfaces. The lig	ght ray bounces off a su	ırface. That is why
you can see yourself in a	Light	is a form of energy
because it can do work for us. For e	xample, phone convers	sations can be
transmitted by light energy from a _	th	rough fibre optics.

WORD BANK			
laser	light	thunder	night
mirror	faster	sun	reflect

### **Matching activities**

1. Match the following energy transformations occurring.

nuclear energy → electrical energy

light energy → electrical energy

electrical energy → heat energy

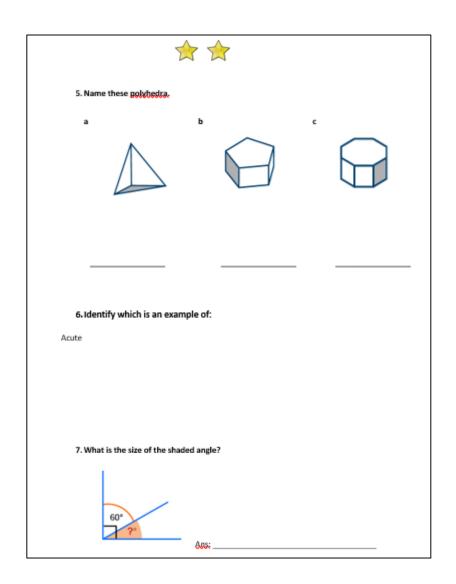


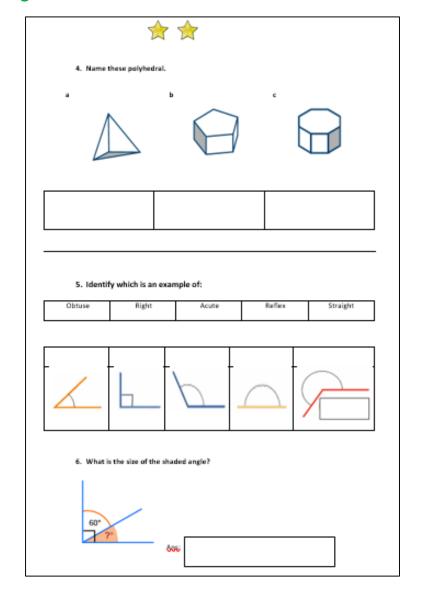
### **Multiple choice**

- 4. Circle the correct answer.
- 1. Red dog died of old age
  - A. True
  - B. False
- 2. What did Red Dog like to do?
  - A. Travel around the country
  - B. Ride on buses
  - C. Mow the lawn
- 3. Why did they call red dog bluey?
  - A. Because his coat is Blue
  - B. Because thats what they call rangers
  - C. Because he likes to lick blue things

- 4. Who Threatened to shoot Red Dog?
  - A. Jake
  - B. Mr. Molested
  - C. The Cribbage's
  - D. Jerry Springer
- 5. Red Dog was called Tally ho before red dog
  - A. True
  - B. False
- 6. Red dog was a male
  - A. True
  - B. False

# **Formatting**





### **Chunking and limiting information**

### Are Mobile Phones Dangerous?

Read the two articles before the exam. While reading through the sources, consider how this information impacts on people's health. You will answer questions on this information in the exam.

### Source 1

Residents of Stag Hill Court, a luxury block of flats, are shocked at the plans to site a mobile phone mast on the roof of the flats. They oppose the mast on health grounds, quoting research in Germany that has found a possible increase in cases of cancer around mobile phone masts.

A spokesperson for the telecoms company said, 'The residents should not worry. The research carried out by our own scientists has found no link between ill health and mobile phone masts'.

This has not reassured the residents, who argue that new independent research is urgently needed.

### Source 2

- Scientists in Sweden found that the regular use of a mobile phone increases the risk of a cancerous growth between the ear and the brain.
- Some people who use mobile phones for a long time complain of headaches and tiredness. The same effect has not been noticed in laboratory tests.
- There is no reliable evidence to link using mobile phones with ill health.
- The waves from a mobile phone are not stroi body.

HLED UNDER: BRAIN AND REUROLOGY | CARGER | COMMUNICATIONS | ELECTRONICS AND ELECTROMAGNETISM | HUMAN PHYSIOLOGY |
PERSONAL HEALTH | SCIENTIFIC DEBATE (MEDICINE)

### Mixed Signals: Are Cell Phones Dangerous?

by Suzi Claffon | March 2011

Science makes our lives richer in innumerable ways, but can also be a nag: get more sleep, exercise more, eat more veggies/fewer fries, do this, don't do that, and so forth and so on. In short, science is constantly giving us advice, and sometimes this advice is not especially welcome. In this vein comes a new study, published in the Journal of the American Medical Association (JAMA), which finds that cell phones affect how our brain works. Many people already act as if their cell phones are a part of their bodies, but, whatever relationship you may have to your electronic buddy, it is hard to see the new research as particularly reassuring.



The study was led by Nora D. Volkow of the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, in Bethesda, Maryland; several other members of the research team were affiliated with those institutes, while still others were with the medical department of Brookhaven National Laboratory on Long Island. The impact of cell phones on human health had been looked at before, and the earlier findings, while not in total harmony, had not raised too much concern. The new study finds that cell phones do have a measurable impact on the brain — brain glucose metabolism goes up — but the health implications of this are not clear. So we don't have to toss away our cell phones quite yet.

# **Researching options**

You may also like to choose one of the following links for supporting information:

http://kidcyber.com.au/tag/facts-for-kids-about-the-australian-gold-rush/	Chinese at the guidehelds hieres of the Australian goldruch reached China in 1653, when that country had been suffering from years of your arises for calse noisey for the face in Australia, a man would take a blanf time a local trade, appeining to send regula reply-ments. He will want of children stayed behind, and worked fire the trader if the man was unable to repeap the low attempt to limit the number of Chinese at the goldhelds, a low was passed in 1865 that any Chinese person entonin Victoria vanid pay the power has taken drive provided fire a protection from, for the right to mine and live in the colony. In from any other country had to pay this tax. However, this did not reduce the numbers of Chinese. They landed in So several hundred killometres to reach the Victorian goldfields.
http://www.australia.gov.au/about- australia/australian-story/austn-gold-rush	Multiculturalism on the goldfields  Soon after the discovery of the goldfields in Victoria an evodus of unprecedented volume started, bringing to Australia people with a range skills and professions, unthought of grindr no the discovery of gold.  Australia attracted adventurers from all around the world. The majority of these new arrhank were British but also included Americans, Ferrich, italia German, Pollish and Hangarian exiles. The largest foreign contingent on the goldfields was the 40,000 Climpor who made their way to Australia.
http://www.goldrushcolony.com.au/australian- gold-history-culture-info/chinese-australian-gold- fields/anti-chinese-racism	Anti-Chinese Laws  The anti-Chinese laws of the late 1670s and 1680s, and the White Australia Policy of 1961, were declarations the Chinese people were a threat to mainstream Australia; For individual Chinese people, this could mean violence, weolgful arrest, commitment to a "fundic asytum", forced vaccination, eviction from the farms they'd built up, being refused permission to re-enter Australia.
http://www.sbs.com.au/gold/story.php?storyid =46	Gobb! Shill > Cold > Immercation and Parallelium > Fees of the Chinese  Fear of the Chinese

### **Key information**

### The ANZAC Spirit

After the Gallipoli Campaign, the Australian and New Zealand Army Corps (or ANZACs as they have become known as) became a legend.

### What is the legend?

The legend is that the Australian and New Zealand troops had qualities of strength and bravery when faced with adversity.

### How was it created?

The Australian soldiers acquired the image that had become linked with the word 'digger.' Digger is an Australian family man who has temporarily become a soldier but has spent his normal life in a rural area.

There were five particularly 'digger-like' qualities which were shown by the ANZACs when faced with hardship during the Gallipoli Campaign.

Their particular attributes included:

- 1. the ability to remain cheerful with a good sense of humour, even in the most difficult of times
- 2. the ability to be resourceful when they had no supplies, for example by making hand grenades from empty tin cans
- 3. the spirit of mateship in which a soldier would risk his own life for his mate's

6. What date do we celebrate ANZAC day every year? \_\_\_\_\_\_

- 4. Australian courage, which was shown on the very first landing at Anzac Cove where the soldiers continued to charge up on to the beach straight into the line of Turkish fire
- 5. the notion that people all deserve the same amount of respect, no matter what their background is.

### Why is it important?

**QUESTIONS** 

The Anzac legend is important because it encourages Australians to remember the soldiers who sacrificed their lives for their country. The legend has made such an impression on Australians that we continue to commemorate the landing of the ANZAC soldiers on the shores of Gallipoli on 25 April each year.

# 1. What does ANZAC stand for? 2. What qualities do these legends have? 3. What is a digger? 4. What are the 5 attributes of a digger? 5. Why is the ANZAC legend important?

### **Example of a year 9 Religion task**

### **Judaism**

### What is Judaism?

Judaism is the original of the three Abrahamic faiths, which also includes Christianity and Islam. According to information published by The Jewish People Policy Planning Institute, there were around 13.1 million Jewish people in the world in 2007, most residing in the USA and Israel. According to the 2001 census 267,000 people in the UK said that their religious identity was Jewish, about 0.5% of the population.

- Judaism originated in the Middle East over 3500 years ago
- Jews trace their history back to Abraham.
- Jews believe that there is only one God with whom they have a covenant.
- In exchange for all the good that God has done for the Jewish people, Jewish people keep God's laws and try to bring holiness into every aspect of their lives.
- Judaism has a rich history of religious text, but the central and most important religious document is the Torah.
- Spiritual leaders are called Rabbis.
- Jews worship in Synagogues.

### The relationship with God

Jews believe that there is a single God who not only created the universe, but with whom every Jew can have an individual and personal relationship.

They believe that God continues to work in the world, affecting everything that people do.

The Jewish relationship with God is a covenant relationship. In exchange for the many good deeds that God has done and continues to do for the Jewish People...

- The Jews keep God's laws
- The Jews seek to bring holiness into every aspect of their lives.

### Judaism is the faith of a Community

Jews believe that God appointed the Jews to be his chosen people in order to set an example of holiness and ethical behaviour to the world.

Jewish life is very much the life of a community and there are many activities that Jews must do as a community.

For example, the Jewish prayer book uses WE and OUR in prayers where some other faiths would use I and MINE.
 Jews also feel part of a global community with a close bond Jewish people all over the world. A lot of Jewish religious life is based around the home and family activities.

### Judaism is a family faith

Judaism is very much a family faith and the ceremonies start early, when a Jewish boy baby is circumcised at eight days old, following the instructions that God gave to Abraham around 4,000 years ago.

Many Jewish religious customs revolve around the home. One example is the Sabbath meal, when families join together to welcome in the special day.

### Judaism means living the faith

Almost everything a Jewish person does can become an act of worship.

Because Jews have made a bargain with God to keep his laws, keeping that bargain and doing things in the way that pleases God is an act of worship.

And Jews don't only seek to obey the letter of the law - the particular details of each of the Jewish laws - but the spirit of it, too.

A religious Jew tries to bring holiness into everything they do, by doing it as an act that praises God, and honours everything God has done. For such a person the whole of their life becomes an act of worship.

### It's what you do that counts...

Judaism is a faith of action and Jews believe people should be judged not so much by the intellectual content of their beliefs, but by the way they live their faith - by how much they contribute to the overall holiness of the world.

### A summary of what Jews believe about God

- God exists
- There is only one God
- There are no other gods
- God can't be subdivided into different persons (unlike the Christian view of God)
- Jews should worship only the one God
- God is Transcendent
- God doesn't have a body
- God is omnipotent
- God is beyond time
- God is just, but God is also merciful
- God is personal and accessible.

Information sourced from: <a href="http://www.bbc.co.uk/religion/religions/judaism/">http://www.bbc.co.uk/religion/religions/judaism/</a>

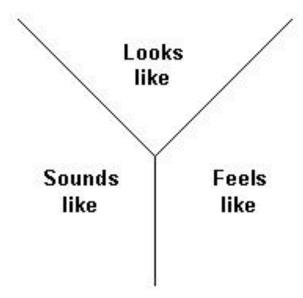
Now in your own words write a couple of sentences summarising your understanding of what Judaism is.

### Key terms

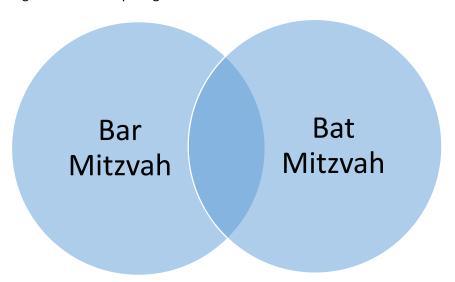
Below is a list of key terms related to Judaism. Your job is to find the meaning of the terms and write the definition in the space provided.

Key Terms	Definition	
Torah		
Sabbath		
Synagogue		
Prayer box		
Tallit		
Kippah		
Brit Milah		
Bar Mitzvah		
Kosher		

Research the birth ritual Brit Milah then complete the Y-Chart below and fill in the spaces (what does it sound like, feel like, look like)



Research the rituals of Bar Mitzvah and Bat Mitzvah. You need to understand the difference between the two. Complete the Venn diagram below comparing the two rituals.



How do Jewish males pray? What do special things do they do? Wear? Use? Write a paragraph.
What does the term G*D mean for Jewish people? Why do the 'spell' G*D this way? What is their view of God? Write a paragraph.

### Example of a year 9 Religion task – Modified to a year 2 level

### <u>Judaism</u>

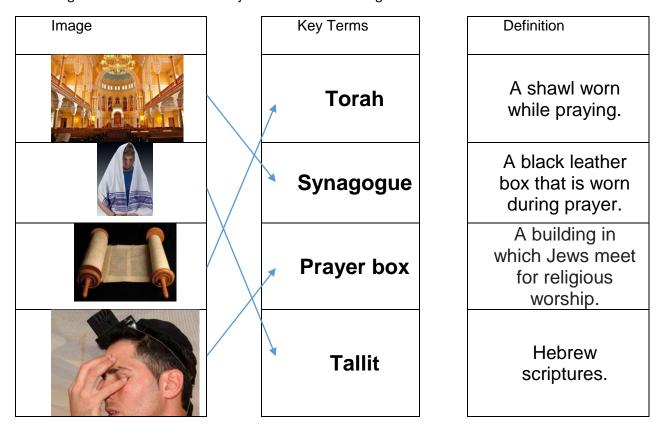
### What is Judaism?

Judaism is the original of the three Abrahamic faiths, which also includes Christianity and Islam.

INFORMATION	QUESTION	ANSWER
Judaism originated in the     Middle East over 3500 years     ago	When did Judaism originate?	years ago
Jews trace their history back to Abraham.	Who do Jews trace their history back to?	
Jews believe that there is only one God with whom they have a covenant.	How many Gods to Jews believe in?	God
Their most important religious document is the Torah.	What is their important document called?	
Spiritual leaders are called     Rabbis.	What are their spiritual leaders called?	
Jews worship in Synagogues.	Where do Jews worship?	

### Key terms

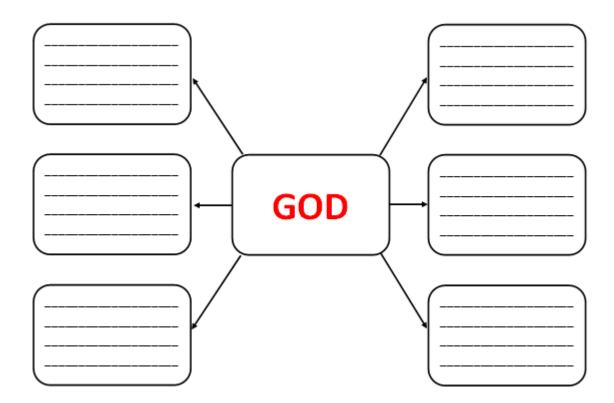
Below are images related to Judaism. Your job is to match the images and their terms to their definition.



### A summary of what Jews believe about God

- God exists
- There is only one God
- There are no other gods
- God doesn't have a body
- God is beyond time
- God is just, but God is also merciful

Write each Jewish belief about God in the concept map below.



Information sourced from: <a href="http://www.bbc.co.uk/religion/religions/judaism/">http://www.bbc.co.uk/religion/religions/judaism/</a>