

Joseph Banks Secondary College

Year 12 Integrated Science: General



Unit 4 - Task 10

Assessment type: Extended Response – Types of Energy

Conditions

Period allowed for completion of the task:

- Four Lessons of class time dedicated to completing the extended response.
- A device (ipad/laptop) may be used to access research material on Seqta and on the internet.
- Class notes from your book.

Use your prior knowledge from classwork, prior lessons and internet resources to answer the questions.

Task Weighting:

10% of the school mark for this pair of units

NAME: _____

Research the definitions of energy, power and work. Define and compare forms of energy by providing common examples (30 marks)

- | | |
|--|--|
| <ul style="list-style-type: none">• define and describe relationships between<ul style="list-style-type: none">▪ energy▪ power▪ work | Energy <ul style="list-style-type: none">• define and compare forms of energy<ul style="list-style-type: none">▪ kinetic▪ potential▪ thermal▪ chemical▪ electrical▪ electro-chemical▪ electromagnetic (light)▪ sound▪ nuclear |
|--|--|

Energy transformations:

- Explain, using appropriate examples, how energy is transformed from one type of energy to another.

Task description

- Research the definitions of energy, power and work, then produce a detailed paragraph for each definition and a final paragraph on the relationships between the three.
- Research sources of information to define and compare the different forms of energy
 - for each form of energy, identify and compare **two (2)** common examples or uses; the two examples should be described in approximately 100 words
 - images may be included and referred to, when comparing the forms of energy
- Include all references in an appropriately set out reference list.
- Plagiarism will result in zero marks being awarded for each section containing plagiarism.

What needs to be submitted for assessment	Due dates
<input type="checkbox"/> Definitions of energy, power and work	24/9/19
<input type="checkbox"/> Comparison of the different forms of energy	24/9/19

Research the definitions of energy, power and work. Define and compare forms of energy, by providing common examples	Maximum possible mark	Allocated mark
Documents definitions and relationships of energy, power and work <ul style="list-style-type: none"> • accurate detailed definitions and correct use of terminology • minor/small errors or some details missing in each definition, uses terminology correctly to define of each term • terminology incorrect and/or critical information missing 	5–6 3–4 1–2	/6
<ul style="list-style-type: none"> • different forms of energy, with two examples or uses of each form of energy • accurate identification of each energy type and correct descriptions of two common examples, using appropriate terminology • correct terminology in identifying each energy type but has minor/small errors in some descriptions of the examples • some energy types defined in general terms, with minor errors in some descriptions of the examples • incorrect use of terminology to identify and describe examples of the energy types 	13–16 9–12 5–8 1–4	/16
Explain how energy is transformed from one form to another. <ul style="list-style-type: none"> • Uses appropriate examples to provide detailed descriptions of the transformation of energy between different forms. • Uses an example to identify the energy transformations with minor/small errors in some descriptions. • Uses general terms to identify some energy transformations with some critical information missing and/or poorly explained. 	5-6 3-4 0-2	/6
<ul style="list-style-type: none"> • appropriate reference list • limited or no reference list provided 	2 0–1	/2
Total		/30

