



## Year 8 Technology Assignment Task 1

**Due Date: Wednesday 21<sup>st</sup> March, 2018.**

Note - A result of your task being handed in late will be penalised by losing 10% of your mark per day late.

Outcomes covered:

4.1.1, 4.1.2, 4.1.3, 4.2.1, 4.2.2, 4.3.1, 4.3.2, 4.4.1, 4.5.1, 4.5.2, 4.6.1, 4.6.2

### Overview

In class we have been looking at Bridge construction. As part of the overall theme of “Why don’t bridges collapse” you are to investigate and report on a famous bridge.

### Task (50marks)

### **My Famous Bridge**

Students are to choose a **famous bridge** from around the world and complete the following tasks below in an assignment:

- Page 1: Design a cover page to present your famous bridge with header and footer. Include a picture which is not bigger than one third of an A4 piece of paper either under daylight or nightlight conditions.
- Page 2: Contents page for organisation of your work to be submitted.
- Page 3: Provide a Google map of the Famous bridge **location** showing a brief summary of GPS co-ordinates, the date it was opened, the type of bridge structure, the material it was built with and its mass, height and length.
- Page 4: Write about the **history** of the bridge and the features that has made it famous. Include illustrations and photos to support your history. Reference and source your pictures.
- Page 5-7: **Illustrate** construction methods and materials used to build the famous bridge with photos or drawings, then explain the

construction methods and materials used in your own words under or beside illustrations.

- Page 8: **Discuss** the proven design principles of Triangles, Arches, Cables, or reinforced concrete that were applied to the famous bridge to make it stronger to carry the load.
- Page 9: **Sketch** the famous bridge from a landscape perspective.
- Page 10: Include a bibliography.

**Presentation:** students are expected to present their work as a word document. Colour and creativity is essential, however, it is the content that is most important. Careful attention to spelling, clear ideas and layout is required.

**Some ideas:**

- Sydney Harbour Bridge
- Golden Gate Bridge (San Francisco)
- Westgate Bridge (Tasmania)
- Le Ponte De Normandie
- Clifton Suspension Bridge

**Due Date:** Wednesday 21st March, 2018 (Week 8, Term 1)

## Marking Scale and assessment criteria

### Presentation 5 Marks

Range	Students in this range:
<b>Extensive</b> <b>(5 marks)</b>	<ul style="list-style-type: none"><li>- Demonstrate an extensive level of presentation including computer word processing and page set out.</li><li>- Present their work in order and extensively completes all points.</li><li>- Provide detailed and accurate information</li><li>- Have correct spelling and grammar</li><li>- Include bibliography.</li></ul>
<b>Thorough</b> <b>(4 Marks)</b>	<ul style="list-style-type: none"><li>- Demonstrate a thorough level of presentation including computer word processing and page set out.</li><li>- Present their work in order and thoroughly completes all points.</li><li>- Provide clear and accurate information</li><li>- Have correct spelling and grammar</li><li>- Include bibliography.</li></ul>
<b>Acceptable</b> <b>(3 Marks)</b>	<ul style="list-style-type: none"><li>- Show moderate presentation</li><li>- Display inconsistent layout and completes majority of points</li><li>- Provide correct information</li><li>- Provide incomplete header and footer</li><li>- Include bibliography</li></ul>
<b>Satisfactory</b> <b>(2 Marks)</b>	<ul style="list-style-type: none"><li>- Attempt clear presentation</li><li>- Inconsistent layout and completes some points</li><li>- Provides some correct information</li><li>- Attempts a bibliography</li></ul>
<b>Elementary</b> <b>(0-1 Marks)</b>	<ul style="list-style-type: none"><li>- Demonstrates a minimal level of presentation</li><li>- Provide no name on document</li><li>- Poor layout</li><li>- No bibliography</li></ul>

**Sketch and Picture**  
**5 Marks**

<b>Range</b>	<b>Students in this range:</b>
<b>Extensive (5 Marks)</b>	<ul style="list-style-type: none"> <li>- Present an outstanding quality sketch using neat lines and colour in a landscape</li> <li>- Presents outstanding and accurate scale perspective</li> </ul>
<b>Thorough (4 Marks)</b>	<ul style="list-style-type: none"> <li>- Presents a high quality sketch using colour and neat lines in a landscape</li> <li>- Presents accurate scale perspective</li> </ul>
<b>Acceptable (3 Marks)</b>	<ul style="list-style-type: none"> <li>- Presents an acceptable sketch using neat lines in a landscape</li> <li>- May have colour</li> <li>- Inconsistent scale perspective</li> </ul>
<b>Satisfactory (2 Marks)</b>	<ul style="list-style-type: none"> <li>- Presents a satisfactory sketch which is inconsistent with scale and landforms</li> </ul>
<b>Elementary (0-1 Marks)</b>	<ul style="list-style-type: none"> <li>- Poor attempt or no sketch of bridge</li> </ul>

**Location and History of the Famous Bridge**  
**10 Marks**

<b>Range</b>	<b>Students in this range:</b>
<b>Extensive (10 Marks)</b>	<ul style="list-style-type: none"> <li>- Provide an extensive description of the location including the GPS co-ordinates and a google maps photo of the bridge.</li> <li>- Provides an extensive and relevant history of the famous bridge.</li> </ul>
<b>Thorough (8-9 Marks)</b>	<ul style="list-style-type: none"> <li>- Provide a thorough description of the location including the GPS co-ordinates and a google maps photo of the bridge.</li> <li>- Provides a thorough history of the famous bridge.</li> </ul>
<b>Acceptable (6-7 Marks)</b>	<ul style="list-style-type: none"> <li>- Provide an acceptable description of location and history of the famous bridge</li> </ul>
<b>Satisfactory (4-5 Marks)</b>	<ul style="list-style-type: none"> <li>- Provides a satisfactory description of location and history of the famous bridge</li> </ul>
<b>Elementary (0-3 Marks)</b>	<ul style="list-style-type: none"> <li>- Little or no information of location and history of the famous bridge</li> </ul>

**Illustration & explanation of construction methods and materials.**  
**15 Marks**

<b>Range</b>	<b>Students in this range:</b>
<b>Extensive (15)</b>	<ul style="list-style-type: none"> <li>- Demonstrate an extensive understanding of how the bridge was constructed and what materials were used.</li> <li>- Identifies the builder and engineer.</li> <li>- Provides sequential illustrations or photos of construction process.</li> </ul>
<b>Thorough (13-14)</b>	<ul style="list-style-type: none"> <li>- Demonstrates a thorough understanding of how the bridge was constructed and what materials were used.</li> <li>- Identifies either the builder or engineer or both</li> <li>- Provides some sequential illustrations or photos of construction process</li> </ul>
<b>Acceptable (11-12)</b>	<ul style="list-style-type: none"> <li>- Provide a brief and acceptable explanation of the construction methods and what materials were used.</li> <li>- Identifies either the builder or engineer</li> <li>- Provides some illustrations or photos of construction process</li> </ul>
<b>Satisfactory (9-10)</b>	<ul style="list-style-type: none"> <li>- Provide a brief and satisfactory explanation of the construction methods and use of materials.</li> <li>- Provides illustrations and photos</li> </ul>
<b>Elementary (0-8)</b>	<ul style="list-style-type: none"> <li>- Basic understanding and explanation of the bridges construction details.</li> </ul>

**Discussion of Proven Design Principles**  
**15 Marks**

<b>Range</b>	<b>Students in this range:</b>
<b>Extensive (15)</b>	<ul style="list-style-type: none"> <li>- Discuss clearly the structural features of the famous bridge in detail and with accurate reference to proven design principles used in bridge construction.</li> <li>- Identifies clearly and accurately points on the bridge that are under compression, have tension and resist torsion forces.</li> </ul>
<b>Thorough (13-14)</b>	<ul style="list-style-type: none"> <li>- Discuss clearly the structural features of the famous bridge in detail and give some reference to proven design principles used in bridge construction.</li> <li>- Identifies points on the bridge that are under compression, have tension and resist torsion forces.</li> </ul>
<b>Acceptable (11-12)</b>	<ul style="list-style-type: none"> <li>- Discuss the structural features of the famous bridge with some accurate reference to proven design principles used in bridge construction.</li> <li>- Identifies points on the bridge that are under</li> </ul>

	compression, have tension and resist torsion forces
<b>Satisfactory (9-10)</b>	<ul style="list-style-type: none"> <li>- Discuss structure of the bridge with some reference to design principles</li> <li>- Identifies points on the bridge that are under compression, have tension and resist torsion forces</li> </ul>
<b>Elementary (0-8)</b>	<ul style="list-style-type: none"> <li>- Little or no discussion of the Famous Bridge structural features</li> </ul>

**Comment:**

**/50**