**Faculty of Technology – Summative Assessment**

**Subject: Year 7 Core Design & Technology – Mr Ashby**

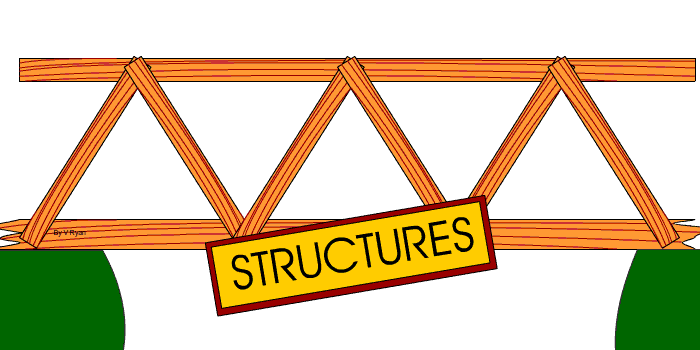
If you studied the Core D&T Module during lockdown, you will be assessed on the following topics when you return to college in September.

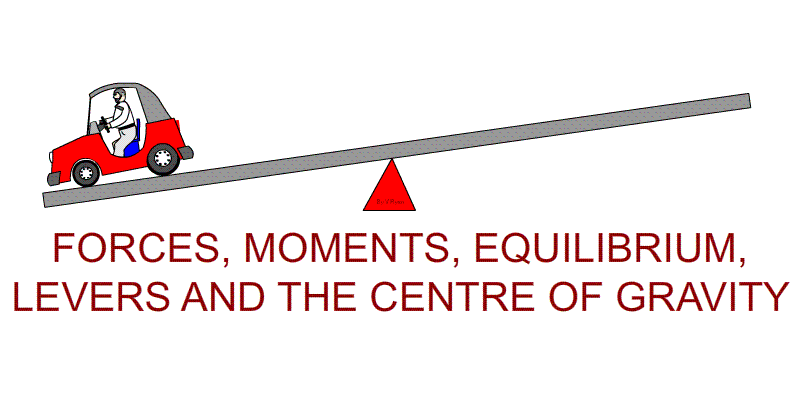
**Topics to be Assessed:**

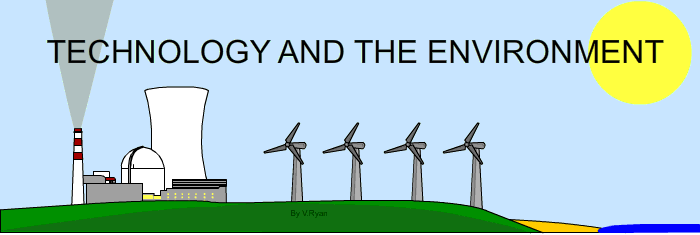
1. Structures and Forces.
2. Fossil Fuels: Coal, Oil and Gas.
3. Renewable energy: Solar, Wind and Tidal / Wave.
4. Energy saving devices.
5. The Carbon Footprint.

**Resources to Help You:**

* [**www.technologystudent.com**](http://www.technologystudent.com) **:**







**Structures and Forces:**

**QUESTIONS:**

**1.** Draw a simple diagram of a wood beam bridge. Explain where a beam bridge of this type would be most useful - over a stream? a river? a large/deep gap? Etc

**2.** Have you seen a modern beam bridge? Where?

**3.** Draw a wood frame bridge and explain why triangular shapes are used.

**4.** In your opinion which is the strongest, a stone slab bridge or a wood frame bridge? Explain your answer.

**5.** Draw a diagram that represents three stone slabs laid across a gap (for example a stream). Remember to include two stone pillars.

**Fossil Fuels: Coal, Oil and Gas:**

**QUESTIONS:**

1. Where does Coal come from?
2. Where does Oil and Natural Gas come from?

**Renewable energy: Solar, Wind and Tidal / Wave.**

**QUESTIONS:**

1. Does solar power cause any pollution or damage to the environment?
2. Sketch and explain any solar powered devices you have seen or used?
3. List 3 advantages and 3 disadvantages of wind power.
4. Draw a simple diagram to help explain how the tide can be used to generate electricity.
5. How do you think building a massive tidal power station would affect the environment?

**Energy saving devices.**

**QUESTIONS:**

1. List 3 energy saving devices.

**Carbon Footprint.**

**QUESTIONS:**

1. List a range of methods of transport such as car, bus, train, taxi, ship etc.... Put the list in order of highest polluter to the lowest.
2. List all the ways you contribute towards your carbon footprint during a normal day.