SAINT GEORGE CATHOLIC COLLEGE

Year 9 Design & Technology Independent work for home

In order to explore and extend upon tasks started in class this year you could independently work on the following tasks:

Pick one of the boxes below to create an in-depth presentation on. Your presentation should fully explore the materials including their chemical and structural make up as well as their physical and working properties such as durability/ strength and what happens when heat is added ect. Your presentation should include examples of products made from this material and how the material is recycled or disposed of (Does this have a negative environmental effect? If so can you suggest another material that would be more ethically justified for your chosen product?)

Timber based materials:

Softwoods
Hardwoods
Seasoning, conversion and creation of manufactured timbers
How to cut, drill, chisel, sand and plane

Metal Based Materials:

Sources and origins (Extraction and refining)
How to cut, drill, turn, mill cast bronze and weld

Polymers:

Thermoplastics
Thermosetting plastics
Alternative polymers (Bio plastics)
Refining crude oil , fractional distillation and cracking
How to cut, drill, deform, print and weld

Look at the following contexts:

Supporting developing countries
Addressing the needs of people with disabilities
Encouraging a healthy lifestyle

Use the Mini NEA Guide to help you in the creation of your project.
In terms of making you should create a prototype out of recycled and found materials such as card, packaging and any other materials you have to hand.

Your supporting work could take the form of a powerpoint presentation if you have IT access, alternatively you could create your supporting work on pieces of A3 or A4 paper. (Don't forget that you have access to powerpoint via the office 365 email that you have been supplied by the school.