

## Engineering Revision List

Examination date – Tuesday, May 24<sup>th</sup> 2016

The context for this years' exam is Handheld power tools.

You have been given a copy of the pre-release, so use it wisely. If you lose it go and see Mr Williams in EG1 to get a new copy.

### General Questions

What is the purpose of a Design Specification?

Write a 5-point specification for a handheld power tool. Why are those points important?

List 3 safety points to consider when working with a handheld power drill in the workshop.

### Components

Look into different types of electronic components used to make a handheld power tool:

What do they look like?

How are they labelled on a circuit diagram/drawing?

- LED's
- Motors
- Variable resistor
- Resistor
- Battery
- Relay
- Wire

### Technology

- How does a handheld power tool work?
- What components are needed for the power tool to move?

### Materials

Research the following materials:

Polystyrene

Polypropylene

High Impact Polystyrene (HIPS)

Rubber

What kind of properties do these materials have?

Why have they been used to make certain parts of a handheld power tool?

## Manufacturing



Explain the process of injection moulding. A handheld power tool could have some of its' parts manufactured this way. (Key terms to consider – function, performance, ergonomics, quality, cost, safety).

Use the following online tools to help with your revision:

The Facebook page - [Engineering@YJB](#)

The Engineering webpage – [www.engineeringatyjb.weebly.com](http://www.engineeringatyjb.weebly.com)

Mr Wheldon's Engineering Page – You can find this by going on the [engineeringatyjb.weebly.com](http://engineeringatyjb.weebly.com) page. An excellent resource with loads of manufacturing videos.

[www.technologystudent.com](http://www.technologystudent.com) – An excellent website to be used to research materials, processes and electronic components.

These pages are updated regularly, so make sure you have a look at them and switch on your notifications.