

## Curriculum on a Page

### Term One

#### What we will be learning (Subject knowledge)

Further application and development of engineering drawings.

Practical skills and processes (and alternative commercial and industrial processes).

Computer aided design and modelling, application of new technologies, quality control processes and techniques.

#### How we will be learning (Learning approaches including Learning Habits)

- Focus practical tasks and investigation
- Group research and practical tasks-phone holder product.
- Home learning tasks relating to core knowledge and understanding, & mathematical applications.
- Case study investigations.

#### Try This at home

Using this website to investigate the world of engineering-

<http://www.tomorrowsengineers.org.uk/>

### Term Two

#### What we will be learning (Subject knowledge)

- Engineering principles, processes and techniques.
- Materials-properties and characteristics.
- Mathematics for engineers-application of formula, equations and calculations.

#### How we will be learning (Learning approaches including Learning Habits)

- Examining exemplar materials.
- Practical investigations and production of the engineered product-mini task 1
- Peer and self-assessment of the work.
- Target driven teacher reviews.

#### Try This at home

Check out one of the greatest engineers of our time-

<http://www.engineering.com/Library/ArticlesPage/tabid/85/ArticleID/34/Leonardo-da-Vinci.aspx>

<http://www.geniusstuff.com/blog/list/10-leonardo-da-vinci-inventions/>

### Term Three

#### What we will be learning (Subject knowledge)

- Introduction of the OCR internally assessed project (R110, R111, R112).
- How to un-pack, investigate and prepare for the controlled assessment project.
- How to present the engineering portfolio for the controlled assessment.

#### How we will be learning (Learning approaches including Learning Habits)

- Practical investigations related to, and relevant to the controlled assessment task.
- Up-packing and interrogating the controlled assessment scheme. (How do I gain higher marks?)
- Peer and self-assessment of the controlled assessment work.
- Target driven teacher reviews.
- Home learning tasks relating to core knowledge and understanding
- Mock exam question sessions.

#### Try This at home:

What happens when it all goes wrong?

<http://listverse.com/2007/12/04/top-10-worst-engineering-disasters/>