Design Technology Year 10

We will be learning about…
During the half term, we are going to be focus on Core knowledge and understanding of materials, their extraction, uses and properties. You will understand elements how materials are formed and how they are applied to the correct use case. Technical features, properties and the non physical properties will also be explored.

Week	Key Learning	Homework
1	**Core - Metals** • Classification of Metals and categories • Working properties and the structure of metals and alloys • Metal uses and case studies. • Testing metals and destructive testing Seneca learning and assessment on metals	Seneca learning and assessment on metals
2	**Core – Paper and Boards** • Structure and rigidity of papers and boards • Printed pages through to Manufactured boards for furniture • Synthetic Fibres and textiles from natural sources • How technical fibres are created to solve existing problems. Revision cards	Revision cards
3	**Core – Polymers** • Environmental impact of extraction • Thermo and thermosetting characteristics • Identification codes of polymers, markings, • Use Cases and manufacturing processes Past paper exam questions	Past paper exam questions
4	**Core – Electronics** • Circuit soldering processes. • Safe use of portable power tools • **ASSESSMENT** • Electronics and circuit theory with programmable flowchart Manufacturing diary linked to NEA	Manufacturing diary linked to NEA
5	**Core – Woods** • Natural woods • Categories of woods and features • Construction techniques • Engineered timber Revision	Revision
6	**Core – Woods continued, manufactured boards** • Reconstituted materials • Circular economy • **ASSESSMENT** • Walking Talking Mock Materials summary presentation	Materials summary presentation

Enrichment opportunities:
Students do have the option to attend catch up sessions if needed during lunchtimes or after school if they feelthey need more time and support on their practical product.

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How can you help?
Parents can support their child in DT by talking to them about the project they are undergoing and encourage them to do their best. It is also helpful if students are provided with a quiet place to do their homework tasks.
Excellent links can be found on the internet such as
www.technologystudent.com
www.senecalearning.com
www.bbc.co.uk/bitesize/subjects then selecting Design Technology.