Design Technology Year 10

We will be learning about…
We will be learning about… During the next 5 weeks, we are going to explore CAD and Digital design in 2D and 3D. You will investigate the design tools and software, work with CAM settings and created 3D rendered products. Alongside this, we will explore some core content that you will cover within your exam, including: Scale, Evaluation, Production planning, Social moral Cultural and ethical considerations.

Key Vocabulary						
Stakeholders	Inclusivity	Rendering	Conventions	Ergonomics	Anthropometrics	Orthographic

Week	Key Learning	Homework
1	• CAD Project • Page setup and formats using ISO standards • Colour for tool paths and enabling plotter and laser cutter tools • Understanding nets and packaging on their importance to product Safety	Robotics presentation
2	• CAD Project • Basic and extended tool boxes • Shapes revolutions extrusions of designs • Working within millimetres and selecting work planes • Selection and use of rendering patterns • View points and exporting images for use in design portfolios	Gathering furniture specifications
3	• CAD Project • How to work within preset parameters and specifications • Use of multiple angles and surfaces in Google sketchup • Build on knowledge and learning to construct a range wooden product design items	IKEA Knock Down Fittings
4	• CAD Project • Model examples of what a final design should look like • Core • hydrophobic coatings, budgeting, manufacture time scales • how to make correct material choices for products • the future of 3D printing and intergalactic travel • Worldwide environmental agreements	Planning worksheet and past paper questions
5	• Core • How ethical considerations impact design choices • Government subsidies on green technologies by reducing CO2 • International trade reduces costs set up what environmental impact focus on pollution • Safe working practices human rights globally • Life cycle assessment identifying 7 key points, raw materials, manufacture, distribution, product use disposal, recycling, 6Rs	SMEC case study

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

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

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www.senecalearning.com
www.bbc.co.uk/bitesize/subjects then selecting Design Technology.