

Year 10 & 11 DT Electronics overview

1: Modular
circuit project
x5 lessons/cycle

2: Contextual
Challenge x5
lessons/cycle

Throughout:
Core
knowledge x 1
lesson/ cycle

Embedded skills: practical,
drawing, CAD, problem solving

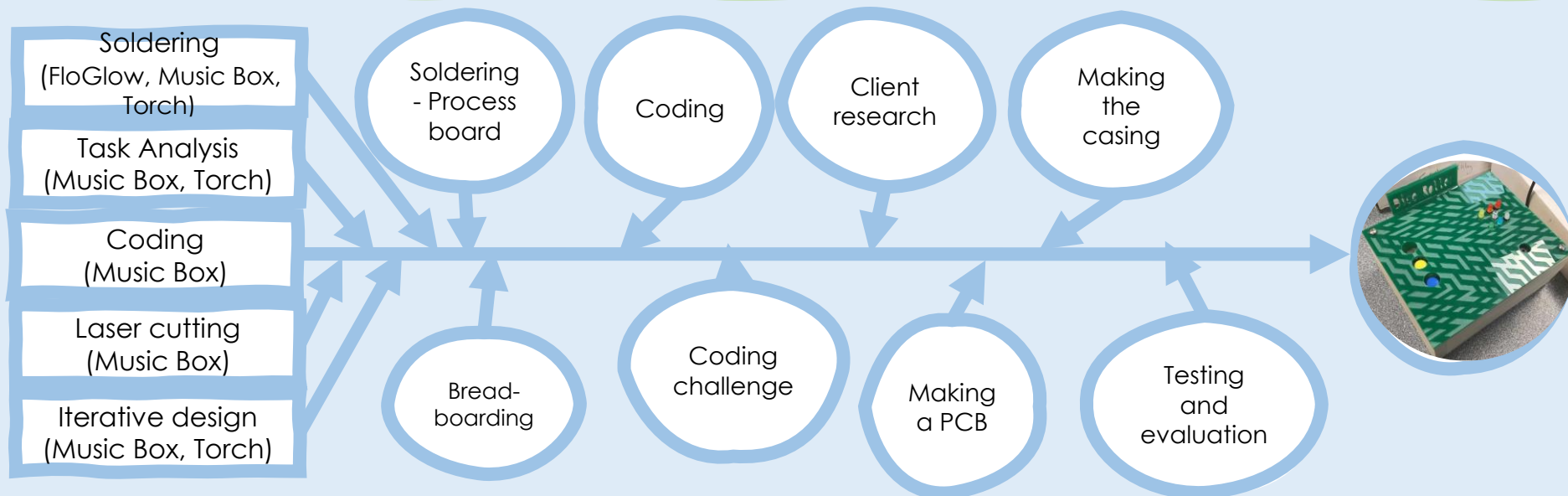
- * NEA – From June until Feb – 50% of grade.
- * Core knowledge & exam practice throughout
– Exam at end 50% of grade.

Project 1; Modular Circuit Project- Why do we study Electronics?

By studying Design and Technology we allow opportunities to develop skills and knowledge across a wide range of disciplines using traditional, practical and computer aided tools. Design and Technology covers Product Design, Resistant Materials, Electronics, Fashion and Textiles and Engineering, all problem-solving subjects building confidence and resilience in creative skills, testing, failing, improving and creating successful outcomes individually, or as part of a team.

We study electronics to gain a thorough understanding of the world around us. Through building circuits, coding microcontrollers, designing and making casings for our circuit boards, we develop key skills to be able to create solutions to everyday problems in innovative ways.

The Modular Circuit Project is an introduction to DT GCSE and builds on what we did in Year 7, 8 and 9 – recapping how to use microcontrollers and code them to do what we want. It also introduces breadboarding and modelling circuits, as well as designing using CAD and making the casing. By the end you'll have a project board that you can use for future projects, and a product that meets a specific need!



Project 2; Contextual Challenge - Why do we study Electronics?

By studying Design and Technology we allow opportunities to develop skills and knowledge across a wide range of disciplines using traditional, practical and computer aided tools. Design and Technology covers Product Design, Resistant Materials, Electronics, Fashion and Textiles and Engineering, all problem-solving subjects building confidence and resilience in creative skills, testing, failing, improving and creating successful outcomes individually, or as part of a team.

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The Contextual Challenge project is the opportunity for students to practice making their own decisions and choices on what they want to design. With the focus mainly on modelling and development using the iterative cycle, the students follow the design process from research, generating design ideas and modelling.

