What your child will do in Design and Technology.

All students will have the opportunity to study the following areas over the next 3 years. The groups will rotate so that, within any one year, they may undertake these tasks in a different order from the general outline given here.

Year 7

Product Design. Design and construction of a small LED based torch with a focus on workshop and electrical safety. Students will be introduced to, and use, a wide range of workshop tools and machinery including vacuum forming and basic electronics.
Level assessment: Ideas and Making. PLTS: Reflective learners. X- Curricular: Science and Healthy Lifestyles.

Structures. Short unit on forces, rigidity and members. Design and make paper structures to carry weight and achieve height. Three lessons.
Level assessment: Making strand. PLTS: Teamwork.

Graphics. Orthographic projection 3rd angle only. Three or four views. Two lessons.
Level assessment: Communication. Linework and layout of the drawings.

Designing for a Client. Students manufacture a 3-D picture frame with a wooden carcase design including a mitred frame.
Level assessment: Development and evaluation. Creativity and personalisation of the picture content along with the range of skills shown.

Computer Aided Design/ Computer Aided Manufacture. (C.A.D./C.A.M.) Students are introduced to the 2-D Design software that drives most of our C.A.M. machines. They output their designs to a cutting machine to manufacture a vinyl sticker. They use the same software to output their designs to a laser and they learn how to set up the machine to cut in acrylic or timber.

Assessment: Making marked to level and C.A.D. drawing levelled for accuracy and ability to be cut out by the machines. The level of independence show when using the C.A.M. machines. **N.B. The 2D Design software is available free for Wadebridge students to load onto their home computer.**

B&E / Graphics. Design and manufacture of a greeting card. C.A.D.with the use of the laser / Craftrobo.
Assessment: Creativity. PLTS: Teamwork, economic capability. X-curricular: Technology and the Media and enterprise.

Licence to Cook. The students will prepare and cook a fruit salad and vegetable

soup including an extended homework task. Fruit crumble and flapjacks/muffins. Business and Enterprise unit based on pizzas.
Assessment: X-curricular: Healthy lifestyles.

Food. The students reinforce their knowledge of the eat-well plate, safety, hygiene and the use of cookers. Practical work covers basic skills and the products they prepare and cook include fresh fruit salad, fruit crumble, bread rolls, vegetable soup, decorated muffins and pasta in a cheese sauce.

Level Assessment: Evaluation of crumble and making of decorated muffins.
X-curricular: Science, Maths.PLTS: Team workers, creative thinkers, reflective learners.

Textiles. Students design and manufacture a stylised animal using hand stitching techniques to assemble and decorate laser cut shapes.
Bean bags The students design and manufacture a bean bag based on a character of their choice using both hand and machine sewing techniques.
Level Assessment: Designing and Making of the bean bag
X-curricular: Maths PLTS: Creative thinkers. self managers

Designers. The students investigate design styles from the industrial revolution to the present day and learn to identify the work of the Alessi design school. They then generate their own designs that reflect that style and present their ideas to the class.
Assessment: PLTS teamwork and communication skills. Rendering and annotation quality.

Futures. Students investigate a range of careers that are linked to Design and Technology and select one to look at in more detail.
Assessment: Written / graphic presentation.