Additional Learning for Year 8 from Design and Technology

There will be two projects running during the third term. Project one is a ***'Moisture Sensor'*** – electronics based and project two is a '***Balancing Object'*** – learning how to measure, mark, cut and shape copper and brass.

What you will learn or get better at by doing these activities:	Moisture Sensor - Designers often break the problem up into a number of smaller activities. This is to make it easier to solve and ensure that they do not forget any important information that might affect the design. Students are given the following situation - Houseplants can suffer if owners do not give them the correct amount of water. Houseplants can die if they do not receive enough water, and they can rot if they are over watered. This project is about breaking this problem down into smaller activities that build upon each other to product a final product.....?????
Description of activities you must complete:	1. List and describe (draw leaves if you don't know its name) any plants you have at home, with a brief description of their condition. 2. Investigate other forms of moisture testers, make a mood board (collection of images) 3. Write specification for a moisture tester, what must it do? 4. Basic intro electronics - complete information sheet 5. Basic intro Resistors - complete information sheet 6. Design a simple circuit – use electronic symbols to complete this circuit
Resources you need to do this homework:	Your portfolio of work, plain A4 or A3 paper, scissors, glue, colour paper, colour pencils magazines and access to the internet and printer to aid personal research. Work sheets, tracing paper and laminated help guides provided by the teacher. If there is any resources that you need to complete you homework and you may not have access to them please ask you technology teacher and they will provide some for you.
Where you can get help:	**SEN students:** All students can discuss opportunities for extra help with their teacher. **All students:** Technology teachers are always available for consultation. You can also use magazines, books, and the Internet to research information
Deadline for Homework: **(Date)**	By the end of term pupils will have a large portfolio demonstrating basic electronic knowledge. Individual deadlines to be set and agreed between the teacher and groups.
How to submit your homework's	Your work should be completed on paper (or computers and a print out) available for marking by the agreed deadlines. All completed sheets should be stored in your portfolio. Remember to write agreed deadlines down for reference.

When you will get feedback on your Homework: (Date)	Written feedback will be given within one week of completion with targets and strategies for future development. Students are encouraged to discuss their work with parents and teachers to ensure targets and strategies are understood.
Other Information:	Remember all students can try extension tasks – the more you experiment with new ideas and techniques the more personal your project will be and the greater your achievement. ICT can be accessed in school at early bird club, lunchtimes and after school. You can also arrange support within the technology department – please talk to you teacher

What you will learn or get better at by doing these activities:	**Balancing Object –** Students in the first term learned one manufacturing process for shaping metals; casting – the process of pouring a molten material (pewter) into a mould. This term see students learning more 'traditional' manufacturing process. Students will lean the difference between the different types of metals, how to select the correct material(s) for the product. Students will also get the opportunity to use the centre lathe to 'turn' the centre balancing shaft.
Description of activities you must complete:	1. Research what is a metal, the difference between ferrous and non-ferrous. 2. The story of the tin can – product life cycle. 3. Designing two opposite or complementary images. 4. Product evaluation.
Resources you need to do this homework:	Your portfolio of work, plain A4 or A3 paper, scissors, glue, colour paper, colour pencils magazines and access to the internet and printer to aid personal research. Work sheets, tracing paper and laminated help guides provided by the teacher. If there is any resources that you need to complete you homework and you may not have access to them please ask you technology teacher and they will provide some for you.
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Deadline for Homework: (Date)	By the end of term pupils will have a portfolio of research, designs and a physical product. Each of these three element will have deadlines and will be asset individual and then as a whole. Individual deadlines to be set and agreed between the teacher and groups.
How to submit your homework's	Your work should be completed on paper (or computers and a print out) available for marking by the agreed deadlines. All completed sheets should be stored in your portfolio. Remember to write agreed deadlines down for reference.
When you will get feedback on your Homework: (Date)	Written feedback will be given within one week of completion with targets and strategies for future development. Students are encouraged to discuss their work with parents and teachers to ensure

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