

Edexcel GCSE in Design and Technology: Resistant Materials Technology (2RM01)

Key skills development suggestions

Here are the key skills development suggestions as mentioned on *page 53* of the specification.

Key skill (Level 2) Application of number		Unit	Opportunities for development or internal assessment
N2.1	Interpret information from a suitable source.	Unit 1	Interpreting descriptive statistics for product analysis and research.
N2.2	Use your information to carry out calculations to do with: a amounts or sizes b scales or proportion c handling statistics d using formulae.	Unit 1	Carrying out calculations, which could relate to volumes, ratios, averages, formulae etc, and showing methods of working.
N2.3	Interpret the results of your calculations and present your findings.	Unit 1	Selecting effective methods of presentation using, as appropriate, charts, diagrams, and tables.

Key skill (Level 2) Communication		Unit	Opportunities for development or internal assessment
C2.1a	Take part in a group discussion.	Unit 1	Contributing to a class discussion about quality of design and manufacture.
C2.1b	Give a talk of at least four minutes.	Unit 1	Researching the properties of one material and giving a short talk about its suitability for a familiar product, using a chart to show its properties.
C2.2	Read and summarise information from at least two documents about the same subject. Each document must be a minimum of 500 words long.	Unit 1	Reading relevant sections in a textbook, when researching the properties of a range of materials. Identifying key points and drawing up a table to match materials and properties with their end-use in a range of products. Explaining findings. Reading and analysing information about recycling materials. Identifying key issues and summarising how different materials may be recycled.
C2.3	Write two different types of documents each one giving different information. One document must be at least 500 words long.	Unit 1	Presenting information about the analysis of a product, using a range of criteria to judge its quality of manufacture. Producing an illustrated report about the working properties of materials.

Key skill (Level 2) Information and communication technology		Unit	Opportunities for development or internal assessment
ICT2.1	Search for and select information to meet your needs.	Unit 1	Accessing a database to search for information about products and price ranges.
	Use different information sources for each task and multiple search criteria in at least one case.	Unit 2	Using the internet to research information about materials, processes and products.
ICT2.2	Enter and develop the information to suit the task and derive new information.	Unit 1	Using a spreadsheet to compare costs of different materials and components.
		Unit 2	Using software to explore 'what if' situations, by changing dimensions when developing ideas about products.
ICT2.3	Present combined information such as text with image, text with number, image with number.	Unit 1	Using software to assemble text, images, diagrams and charts when analysing research information.
		Unit 2	Using software to produce text and images for a presentation about the results of a product analysis.

Key skill (Level 2) Improving own learning and performance		Unit	Opportunities for development or internal assessment
LP2.1	Help set targets with an appropriate person and plan how these will be met.	Unit 1	Planning the analysis of a product, agreeing targets and areas of responsibility.
LP2.2	Take responsibility for some decisions about your learning, using your plan to help meet targets and improve your performance.	Unit 1	Following a work schedule and monitoring work as it progresses. Responding to unexpected problems, related to availability of materials or equipment, and revising the schedule where necessary.
LP2.3	Review progress with an appropriate person and provide evidence of your achievements.	Unit 1	Evaluating the final product against specification criteria, identifying what went well and less well. Identifying where and how the specification criteria were met, the knowledge and skills learned and how own learning helped achieve a successful final product. Suggesting and justifying modifications to the product.

Key skill (Level 2) Problem solving		Unit	Opportunities for development or internal assessment
PS2.1	Identify a problem, with help from an appropriate person, and identify different ways of tackling it.	Unit 1	Identifying user needs and a product that will solve a problem. Identifying realistic specification criteria for evaluating and testing the product.
PS2.2	Plan and try out at least one way of solving the problem.	Unit 1	Producing a work schedule and setting realistic deadlines, showing where performance checks will be made. Monitoring the production plan, modifying the making processes as necessary. Using support, where necessary, and recording any changes made to the product or processes.
PS2.3	Check if the problem has been solved and identify ways to improve problem-solving skills.	Unit 1	Practising processes and techniques to ensure the production of a quality product. Applying quality control, developing and using appropriate tests to check the quality of design and manufacture. Evaluating the final product in response to test results and the views of intended users. Suggesting and justifying modifications to the product.

Key skill (Level 2) Working with others		Unit	Opportunities for development or internal assessment
WO2.1	Plan work with others.	Unit 1	Planning the analysis of a product, working in small groups. Agreeing targets and areas of responsibility.
WO2.2	Work co-operatively towards achieving the identified objectives.	Unit 1	Planning the batch production of a simple product, working in small groups. Agreeing targets, areas of responsibility and deadlines.
WO2.3	Review your contributions and agree ways to improve work with others.	Unit 1	Evaluating what went well or less well when working with others on batch production.

Contact us

If you have any questions please call us on 0844 576 0027 or use our Ask the Expert service. This online support service will put you in direct email contact with our senior subject experts. Go to www.edexcel.com/asktheexpert to ask a question.

