

Edexcel Entry 1, Entry 2 and Entry 3 Certificate in Design and Technology (8911)

Specification

Entry Level Certificate

First assessment June 2014

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Introduction

The Edexcel Entry Level Certificate in Design and Technology is designed primarily for use in schools.

The qualification is part of a suite of Entry Level Certificate qualifications offered by Edexcel.

Key qualification objectives

The objectives of this specification are consistent with the requirements of the National Curriculum. Students demonstrate fully their design and technology capability and combine skills with knowledge and understanding to design and make quality products.

The objectives of this specification are to:

- give students opportunities to develop their practical skills and the confidence to design and make quality products
- enable students to analyse and evaluate products and processes
- allow students to engage in focused practical tasks to develop and demonstrate techniques in making products
- enable students to engage in strategies to develop ideas and plan and produce a product
- enable students to develop decision-making skills through individual and collaborative working.

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Specification at a glance

The Edexcel Entry Level Certificate in Design and Technology comprises one assessment in the form of a design and make activity.

This applies at each level – Entry 1, Entry 2 and Entry 3.

Design and make activity
<ul style="list-style-type: none">• Internally assessed• Availability: June series• First assessment: June 2014
Overview of content <ul style="list-style-type: none">• Students will follow the creative design process to design and make a product.• Students will develop skills in researching, designing, reviewing, planning, making, testing and evaluating.
Overview of assessment <ul style="list-style-type: none">• Students must complete one design and make activity in their chosen focus area.• Centres will choose a task from a range provided by Edexcel (available on our website). These tasks can be contextualised to suit centre-specific circumstances.• Students must complete their designing and making activity within 20 hours.• Task marking will be carried out by teachers and moderated by Edexcel.• The first submission of student work will be in 2014 and in each June series thereafter.

Qualification content

National Qualifications Framework (NQF) criteria

This qualification complies with the requirements of the NQF common criteria and criteria for Entry Level Qualifications, which are prescribed by the regulatory authorities.

Design and make activity

Detailed content

Students will have the opportunity to follow the creative design process to design and make a product in response to a derived or given brief and specification criteria. The chosen task must be taken from one focus area only. Students should not combine elements from different focus areas.

Design briefs **must** be derived from one of the Edexcel set tasks for each focus area. A list of these tasks can be found on the Edexcel website.

1: Designing skills

1.1 Specification criteria

What students need to learn

When designing a product and, depending on the level of entry, students should take into account the following specification criteria:

- **form** – how should the product be shaped/styled?
- **function** – what is the purpose of the product?
- **user requirements** – what qualities would make the product attractive to potential users?
- **performance requirements** – what are the technical considerations that must be achieved within the product?
- **Material/ingredient/component requirements** – how should materials/ingredients/components perform within the product?
- **scale of production and cost** – how will the design allow for scale of production and what are the considerations when determining cost?
- **sustainability** – how will the design allow for environmental considerations?

1.2: Design communication

What students need to learn

When designing a product, at all entry levels students should be able to respond creatively to design briefs and specification criteria, including:

- clear communication of design intentions using notes and/or sketches
- annotation which relates to the original specification criteria.

2: Making skills

What students need to learn

When making a product, at all entry levels students should be able to demonstrate an appropriate range of making skills, including:

- the selection of tools, equipment, machinery, processes and techniques for specific purposes
- the use of tools, equipment, machinery, processes and techniques with some precision and accuracy
- high level safety awareness throughout all stages of manufacture.

3: Application of knowledge and understanding

What students need to learn

When designing and making a product, at all entry levels students should be able to apply their knowledge and understanding of an appropriate range of materials/ingredients/components and manufacturing processes, both industrial and workshop based, including:

- the properties of materials/ingredients/components
- the advantages/disadvantages of materials/ingredients/components and manufacturing processes
- justification of the choice of materials/ingredients/components and manufacturing processes.

Knowledge and understanding of specific focus areas

Students' understanding of their design and technology focus area should be enough to allow them to evaluate a set task, specify materials based on their properties and performance and to select and use appropriate manufacturing processes and techniques.

Resistant Materials Technology		
Materials and components	Wood	<ul style="list-style-type: none"> • Oak • Beech • Pine
	Manufactured boards	<ul style="list-style-type: none"> • Plywood • Medium density fibreboard (MDF)
	Metal	<ul style="list-style-type: none"> • Alloy steel • Aluminium
	Polymers	<ul style="list-style-type: none"> • Acrylic • High impact polystyrene (HIPS) • Acrylonitrile-Butadiene-Styrene (ABS) • Polyvinyl chloride (PVC)
	Composites	<ul style="list-style-type: none"> • Glass reinforced plastic (GRP)
Workshop practices	Wood	<ul style="list-style-type: none"> • Cutting, shaping, joining and finishing techniques when making products
	Manufactured boards	<ul style="list-style-type: none"> • Cutting and shaping for modeling/knock-down construction/veneering
	Metal	<ul style="list-style-type: none"> • Cutting, filing, drilling, bending • Hardening/annealing alloy steels when making tools • Casting/machining aluminium
	Polymers	<ul style="list-style-type: none"> • Vacuum forming HIPS /PVC/ABS sheet • Bending acrylic sheet using line-bender/strip-heater • Laser/CAM cutting acrylic sheet
	Composites	<ul style="list-style-type: none"> • Laminating female moulds to produce male mouldings
Industrial applications	Wood and manufactured board	<ul style="list-style-type: none"> • Commercial production of furniture, eg kitchen units/doors using computer numerically controlled (CNC) machinery
	Metal	<ul style="list-style-type: none"> • Machining products using CNC machinery
	Polymers	<ul style="list-style-type: none"> • Vacuum forming, eg trays, baths • Injection moulding, eg cases for electronic/electrical products
	Composites	<ul style="list-style-type: none"> • GRP mouldings for cars, trains, boat hulls

Graphic Products

Materials and components	Paper and board	<ul style="list-style-type: none"> • Photocopy paper • Mounting board • Foam board • Carton board, eg folding boxboard, solid whiteboard
	Polymers	<ul style="list-style-type: none"> • Polyvinyl Chloride (PVC) • Vinyl self-adhesive stickers • Acrylic • Polystyrene (PS) • Styrofoam
	Composites	<ul style="list-style-type: none"> • Medium density fibreboard (MDF)
Workshop practices	Paper and board	<ul style="list-style-type: none"> • Spiral/comb binding documents • Cutting, scoring, folding and glueing nets • Plotting/cutting using CAD/CAM
	Polymers	<ul style="list-style-type: none"> • Vacuum forming of rigid polystyrene sheet • Line bending of acrylic sheet • Laser cutting of acrylic sheet using CAD/CAM • Cutting of vinyl using CAD/CAM • Lamination of Styrofoam for block modelling
	Composites	<ul style="list-style-type: none"> • Lamination of MDF for block modelling
Industrial applications	Paper and board	<ul style="list-style-type: none"> • Commercial printing processes, eg offset lithography and screen printing
	Polymers	<ul style="list-style-type: none"> • Vacuum forming, eg blister packaging • Injection moulding, eg casings for electrical products • Blow moulding, eg drinks bottles

Textiles Technology

Materials and components	Natural fibres	<ul style="list-style-type: none"> Wool, cotton
	Manmade fibres	<ul style="list-style-type: none"> Polyester
	Woven fabrics	<ul style="list-style-type: none"> Denim, corduroy, tweed, satin, taffeta
	Hand-knitted fabrics	<ul style="list-style-type: none"> Using hand-knitting needles
	Machine knitted	<ul style="list-style-type: none"> Sweatshirting, T-shirt jersey
	Non-woven	<ul style="list-style-type: none"> Felt, interfacing
	Modern and smart materials	<ul style="list-style-type: none"> Polartec fleece (from recycled bottles)
	Components	<ul style="list-style-type: none"> Zips, buttons (shank/flat), Velcro, elastic, fusible interfacing
Workshop practices	<ul style="list-style-type: none"> Cutting out fabric – following pattern instructions, including placing pieces on grainlines Joining with a seam (including pressed open, pressed closed) Shaping a product with – gather, flare Inserting a zip Finishing with a hem (including rolled machine hem, blind hem) Neatening a raw edge using an overlocker Finishing with a facing, stiffened with fusible interfacing Pressing with an iron Decorative finishes to fabric (including resist tie dye and batik) Simple card weaving Simple hand felting techniques 	
Industrial applications	<ul style="list-style-type: none"> Using an overlocker to finish raw edges Buttonhole functions 	

Food Technology

Materials and components	Nutrition: dietary source and function	<ul style="list-style-type: none"> • Protein • Carbohydrate • Fat • Vitamins • Minerals
	Dietary guidelines and Government recommendations	<ul style="list-style-type: none"> • Nutritional concepts, eg five a day, eat well plate, eating more fibre, starchy low Glycemic Index (GI) foods, eating less sugar, fat and salt • Food allergies, celiac diets etc
	Primary and secondary foods	<ul style="list-style-type: none"> • Cereals • Meat, fish and alternative protein foods • Milk and dairy foods • Eggs • Fats and oils • Fruit and vegetables • Sugar
Workshop practices	Hygiene and safety	<ul style="list-style-type: none"> • Personal hygiene • Kitchen hygiene • Food hygiene
	Food preparation techniques	<ul style="list-style-type: none"> • Weighing and measuring • Using basic equipment and small electrical equipment
	Food processing techniques	<ul style="list-style-type: none"> • Practical skills linked to mixing and combining ingredients • Methods of cooking • Shaping and forming • Finishing techniques
Industrial applications	CAD	<ul style="list-style-type: none"> • Nutritional analysis from a data base
	CAM	<ul style="list-style-type: none"> • CAM (bread machine, food processer/mixer)
	Testing	<ul style="list-style-type: none"> • Sensory analysis tests (rating and star profiling) • use of descriptors (taste, texture, smell, appearance, flavour)

Electronic Products

Materials and components	Woods	<ul style="list-style-type: none"> • Pine • Medium density fibreboard (MDF)
	Plastics	<ul style="list-style-type: none"> • High impact polystyrene (HIPS) • Acrylic
	Input components	<ul style="list-style-type: none"> • Light-dependent resistor (LDR) • Thermistor • Toggle switch • Slide switch • Rocker switch • Push to make switch • Push to break switch
	Process components	<ul style="list-style-type: none"> • Transistors (single/Darlington pair) • Thyristor • Operational amplifier (op-amp) (appropriate at Entry Level 3 only) • 555 timer
	Output components	<ul style="list-style-type: none"> • Bulbs • Buzzers • Light-emitting diodes (LEDs) • Loudspeaker • Motor
	Passive components	<ul style="list-style-type: none"> • Resistors • Capacitors
	Circuit construction	<ul style="list-style-type: none"> • Prototyping board (breadboard) • Printed circuit board (PCB)
Workshop practices	Woods and plastics	<ul style="list-style-type: none"> • Case construction using fabrication (wood and HIPS) • Vacuum forming (HIPS)
	Input/process/output/passive components	<ul style="list-style-type: none"> • Circuit construction using components to make products that sense, amplify and output visually or audibly
	Circuit construction	<ul style="list-style-type: none"> • Temporary circuit construction using prototyping board • Permanently soldered final circuit (PCB)
	Testing	<ul style="list-style-type: none"> • Test circuits using some functions of a multimeter

Electronic Products

Industrial applications	Plastics	<ul style="list-style-type: none">• Injection moulding of cases for electronic products
	Input/process/output/passive components	<ul style="list-style-type: none">• Pick and place robotics to populate circuit boards
	Testing	<ul style="list-style-type: none">• Computer testing for speed, accuracy and multi-function

Assessment criteria

The design and make activity, and associated assessment criteria, at each level constitute the total assessment of the Edexcel Entry Level Certificate in Design and Technology. The assessment criteria are progressive through the three levels.

Students must demonstrate competence in **all** four stages of the design and make activity at either Entry 1, Entry 2 or Entry 3 to achieve that level of award.

Work for the Edexcel Entry Level Certificate in Design and Technology is largely expected to be delivered through visual and kinesthetic learning styles with the appropriate supportive levels of written work. It is important, therefore, to ensure that a clear record of progress is maintained, principally through the student's portfolio with photographic evidence or the use of assessor witness statements.

The following tables represent the design and make activity assessment criteria at each level.

1. Investigate

	Entry 1	Entry 2	Entry 3
Criteria			
1.1 Analysing the brief	Use your design brief to help you decide on some things to research.	Identify key points in your design brief to guide your research.	Analyse your design brief by identifying the design needs you will need to consider before designing your product.
1.2 Research	Present research that addresses the statements made in your design brief.	Present relevant and selective research that addresses the key points identified in your design brief.	Present selective and focused research that is guided by the analysis in your design brief.
	Investigate a similar existing product to find out some information that will help your designing.	Investigate a similar existing product to find out some useful information about the materials it is made from that will help your designing.	Investigate a similar existing product to find out useful information to use when designing, to include how it is made, what materials it is made from and how it is assembled.
1.3 Specification	Develop some specification notes about your product describing its form (what it might look like) and its function (what its purpose is).	Develop a design specification for your product using the following headings: <ul style="list-style-type: none"> • form • function • material/ingredient/component requirements. 	Develop a design specification for your product using the following headings: <ul style="list-style-type: none"> • form • function • user requirements • performance requirements • material/ingredient/component requirements.

2. Design

Criteria	Entry 1	Entry 2	Entry 3
2.1 Initial ideas	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Present design ideas that meet some of your specification ideas.</p> <p><i>Electronic Products only:</i></p> <p>Present ideas for case design and for circuit design that meet some of your specification ideas.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Present a range of different initial ideas for your product that meet most of the points in your specification.</p> <p><i>Electronic Products only:</i> Present a range of different circuit and case designs that meet most of the points in your specification.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Present a range of different initial ideas for your product that are creative, realistic, workable and detailed and meet all the points in your specification.</p> <p><i>Electronic Products only:</i> Present a range of initial ideas that use established electronic building blocks in a creative way to create workable circuit designs that meet all the points in your specification.</p>
	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Annotate your designs/plans showing the materials/ingredients/components and processes you will need to make them.</p> <p><i>Electronic Products only:</i></p> <p>Label the components in your circuit ideas. Annotate your case designs to show materials and how the case might be made.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Annotate your designs/plans showing the materials/ingredients/components and processes you will need to make them.</p> <p>Justify the use of some of the materials you have selected.</p> <p><i>Electronic Products only:</i> Label the components in your circuit ideas and briefly describe how the circuits work.</p> <p>Annotate your case designs to show materials and how the case might be made. Justify the use of some of the materials you have selected.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles</i></p> <p>Explain your designs/plans using annotation to show the materials/ingredients/components and processes you will need to make them.</p> <p>Justify your selection of specific materials/ingredients/components. Explain how your designs meet your specification points.</p> <p><i>Electronic Products only:</i> Present a range of different circuits or sub-systems and explain how they work and how they meet specification points referring to specific components or sub-systems. Present a range of different case design ideas and explain how each could be made. Justify your selection of materials.</p>
	<p>Discuss your designs with peers to help with improvements.</p>	<p>Discuss your designs with peers focusing on general and technical points to decide on improvements for development.</p>	<p>Discuss your designs with peers and gather general and technical information based on specification points to use in design development.</p>

Criteria	Entry 1	Entry 2	Entry 3
2.2 Review	<p>Review your designs to decide which one matches your specification notes best.</p>	<p>Review your design ideas against your specification criteria and choose the best one to develop in more detail. Use feedback from peers to help you form your decision.</p>	<p>Review your design ideas against your original specification criteria and choose the best one to develop in more detail. Explain how feedback from peers will be used in development.</p>
2.3 Develop a final proposal	<p>Make changes to your original idea to produce a final improved design proposal.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles Technology</i>: Develop your best design idea into a final design idea that improves your initial idea.</p> <p>Model your final idea to test an aspect of design.</p> <p><i>Electronic Products only</i>: Develop a final circuit idea that is an improvement on an initial idea. Develop a case design that is an improvement on an initial idea.</p> <p>Model your final circuit to test its operation.</p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles Technology</i>: Develop your best design idea into a final design proposal that is improved and refined compared to the original.</p> <p>Explain how your design changes have improved your design.</p> <p>Model and test an important part of your design idea as it progresses. This could be a 2D/3D model using traditional materials and/or a 3D model using CAD.</p> <p><i>Electronic Products only</i>: Use circuit simulation software to test the final design proposal virtually, or use prototyping board (breadboard) to test the circuit or parts of it using real components. Use modelling to adjust component values for the best circuit performance.</p>

Criteria	Entry 1	Entry 2	Entry 3
	<p>Draw your final design/plan showing some dimensions and materials/ingredients/components that would be helpful in making your product.</p>	<p><i>Resistant Materials Technology, Graphic Products, Textiles Technology:</i> Draw your final design showing all the major dimensions and the materials it is made from.</p> <p><i>Food Technology only:</i> Draw your final plan and include information on ingredients and techniques.</p> <p><i>Electronic Products only:</i> Draw your final circuit diagram and include values of electronic components. Draw the final case design and include dimensions and what materials it is made from.</p>	<p><i>Resistant Materials Technology, Graphic Products, Textiles Technology:</i> Draw your final design showing the major dimensions and the materials/ components it is made from.</p> <p><i>Food Technology only:</i> Draw your final plan and include information on ingredients, techniques and method.</p> <p><i>Electronic Products only:</i> Draw your final circuit diagram; include values of electronic components and a circuit layout ready for manufacture. Draw the final case design and include dimensions and what materials it is made from.</p>

3. Make

Criteria	Entry 1	Entry 2	Entry 3
3.1 Production plan	<p>List some tasks that would be helpful when making your product.</p>	<p>Plan a sequence of tasks in an appropriate order for making your product.</p>	<p>Outline a production plan that shows the main stages for making your product, including some quality control checks.</p>
3.2 Making skills	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles Technology: Make a product using a range of different materials /ingredients/components, equipment, techniques and processes, that functions in some aspects but not in others.</i></p> <p><i>Electronic Products only: Make an electronic circuit that uses input and output components. Make the case you have designed or use one given to you by your teacher that you will modify, and assemble these into an electronic product.</i></p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles Technology: Make a product using a range of component parts using different materials/ingredients/components, equipment, techniques and processes, that functions adequately and matches some specification points.</i></p> <p><i>Electronic Products only: Make an electronic circuit that uses input, process and output building blocks. Make the case you have designed or use one given to you by your teacher that you will modify significantly and assemble these into an electronic product.</i></p>	<p><i>Resistant Materials Technology, Graphic Products, Food Technology, Textiles Technology: Make a product that involves different component parts using different materials/ingredients/components, equipment, techniques and processes, that functions fully and matches most specification points.</i></p> <p><i>Electronic Products only: Make an electronic circuit that uses input, process and output building blocks. Make the case you have designed or use one given to you by your teacher that you will modify significantly and assemble these into an electronic product. Assemble the circuit securely in its case and allow easy access to the power supply.</i></p>
	<p>Understand why specific tools, equipment and processes, including CAD/CAM where appropriate, are used to make different component parts.</p>	<p>Select, with guidance, tools, equipment and processes, including CAD/CAM where appropriate, for specific uses.</p>	<p>Select the correct tools, equipment and processes, including CAD/CAM where appropriate, for specific uses.</p>
	<p>Use making skills that demonstrate limited accuracy in manufacture, construction and assembly of component parts.</p> <p>Make your product safely.</p>	<p>Use different making skills that demonstrate some accuracy, in most cases, of manufacture and construction of component parts and their assembly.</p> <p>Make your product safely.</p>	<p>Use different making skills that demonstrate precision and accuracy in manipulating and using materials, tools, equipment and processes.</p> <p>Make your product safely.</p>

Criteria	Entry 1	Entry 2	Entry 3
3.2 Quality of final outcome	<p>Make component parts that function as intended but remain either unassembled or poorly assembled and finished.</p> <p>Produce parts of a product that show some function related to the specification.</p>	<p>Make component parts that are functional, complete and assembled into a finished product or sub-systems of the product</p> <p>Produce a product that matches the specification criteria but whose function is limited.</p>	<p>Make component parts that are accurate, well finished and well assembled into an intended product or demanding sub-systems of the product</p> <p>Produce a product or demanding sub-system of the product that matches the specification criteria and functions as intended.</p>

4. Test and evaluate

Criteria	Entry 1	Entry 2	Entry 3
4.1 Test and evaluate final outcome	Test some aspects of your final product against your specification criteria outlining good points and bad points.	Test and review your final product against your specification criteria.	Test and evaluate your final product against the measurable points of your specification criteria.
4.2 Suggest improvements	Identify one thing you would do differently to improve your product if it were made again.	Identify some ideas for how your product could be improved if it were made again.	Suggest and sketch how your product could be modified to improve its performance and/or quality if it were made again.

Assessment

Assessment summary

The design and make activity is internally assessed.

Summary of table of assessment

Design and make activity
<ul style="list-style-type: none">• Students must complete one design and make activity in their chosen focus area.• Centres will choose a task from a range provided by Edexcel (available on our website). These tasks can be contextualised to suit centre-specific circumstances.• Students need to complete their designing and making activity within 20 hours.• Task marking will be carried out by teachers and moderated by Edexcel.• The first submission of student work will be in 2014 and in each June series thereafter.

Assessment Objectives and weightings

	% in Entry Level Certificate
<ul style="list-style-type: none">• AO1: Recall, select and communicate their knowledge and understanding in design and technology including its wider effects.	10%
<ul style="list-style-type: none">• AO2: Apply knowledge, understanding and skills in a variety of contexts and in designing and making products.	70%
<ul style="list-style-type: none">• AO3: Analyse and evaluate products, including their design and production.	20%
TOTAL	100%

Edexcel set tasks

- Centres will choose a task from a range provided by Edexcel. When tasks are released on the Edexcel website they will state clearly in which June series they should be submitted. The tasks may be reviewed and changed, so it is important that centres check for any changes before selecting tasks. These tasks can be contextualised to suit centre-specific circumstances.
- The design and make activity links directly to the Edexcel GCSE Design and Technology, enabling co-teaching of groups and sharing of resources.

Entering your students for assessment

Student entry

Details of how to enter students for this qualification can be found in the Edexcel's *UK Information Manual*, copies of which (in CD format) are sent to all active Edexcel centres. The information can also be found on the Edexcel website: www.edexcel.com

Classification code

Centres should be aware that students who enter for more than one qualification with the same classification code will have only one grade (the highest) counted for the purpose of the School and College Performance Tables.

Access arrangements and special requirements

Edexcel's policy on access arrangements and special considerations for GCE, GCSE, IGCSE, and Entry Level qualifications aims to enhance access to the qualifications for students with disabilities and other difficulties without compromising the assessment of skills, knowledge, understanding or competence.

The centre assessor and/or centre examinations officer may exercise their own discretion in providing reasonable support to Entry Level Certificate candidates with particular access requirements. Useful information is contained in the regulations and guidance published annually by the Joint Council for Qualifications; permission from Edexcel is not required for access arrangements deemed to be necessary for individual candidates.

Please see the Joint Council for Qualifications website (www.jcq.org.uk) or the Edexcel website (www.edexcel.com/policies) for:

- the JCQ policy Access Arrangements, Reasonable Adjustments and Special Considerations

Please see the Edexcel website (www.edexcel.com) for:

- any forms to submit for requests for access arrangements and special considerations
- dates for submission of relevant forms.

Requests for access arrangements and special considerations must be addressed to:

Special Requirements
Edexcel
One90 High Holborn
London WC1V 7BH

Equality Act

Please see the Edexcel website (www.edexcel.com) for information with regard to the Equality Act.

Internal assessment

Task setting

Tasks will be made available on the Edexcel website from 2013. The tasks may be reviewed and changed, so it is important that centres check for any changes before selecting tasks.

Task taking

Research and planning

Collaboration control

Students may work together during *Stage 1 – Investigate* and *Stage 2 – Design*.

Feedback control

Teachers may feedback to students on the appropriateness of the design ideas.

Resources control

All students must have equal access to resources for their design activity.

Time control

10 hours are permitted for planning and research

Write-up/development

Authenticity

Students must sign the authenticity statement to confirm that the work produced is their own. If work is moderated without evidence of the signed form, marks will be regressed to zero.

Collaboration control

Students must work alone during *Stage 3 – Make* and *Stage 4 – Test and evaluate*.

Feedback control

Teachers may not provide solutions during write up/making but may help students to understand the requirements of the assessment criteria.

Resources control

All students must have equal access to resources for their make activity.

Time control

10 hours are permitted for development/write-up

Task marking and standardisation

The tasks will be marked by the teacher against the set assessment criteria found in this specification.

If more than one teacher in a centre is marking students' work, there must be a process of internal standardisation to ensure that there is consistent application of the assessment criteria.

Authentication

All students must sign an authentication statement. Statements relating to work not sampled should be held securely in the centre. Those which relate to sampled students must be attached to the work and sent to the moderator. In accordance with a revision to the current GCSE/GCE Code of Practice, any student unable to provide an authentication statement will receive zero credit for the component. Where credit has been awarded by a centre-assessor for sampled work without an accompanying authentication statement, the moderator will inform Edexcel and the mark adjusted to zero.

Further information

For up-to-date advice on teacher involvement, please refer to the Joint Council for Qualifications (JCQ) *Instructions for conducting coursework/portfolio* document on the JCQ website: www.jcq.org.uk

Assessing your students

The first assessment opportunity for this qualification will take place in the June 2014 series and in each following June series for the lifetime of the qualification.

Awarding and reporting

The grading, awarding and certification of this qualification will comply with the requirements of the current GCSE/GCE Code of Practice, which is published by the Office of Qualifications and Examinations Regulation (Ofqual).

The Edexcel Entry Level Certificate in Design and Technology will be graded as pass or fail and is awarded at three levels:

- Entry 1
- Entry 2
- Entry 3.

The first certification opportunity for the Edexcel Entry Level Certificate in Design and Technology will be 2014.

Re-taking of qualifications

Candidates may re-take an Edexcel Entry Level Certificate qualification at any point within the life of the specification. There are no limits on the number of re-takes. Candidates are able to claim certification once per year in the June series.

Language of assessment

Assessment of this qualification will be available in English only. Assessment materials will be published in English only and all work submitted for moderation must be produced in English.

Malpractice and plagiarism

For up-to-date advice on malpractice and plagiarism, please refer to the Joint Council for Qualifications (JCQ) *Suspected Malpractice in Examinations and Assessments: Policies and Procedures* document on the JCQ website (www.jcq.org.uk).

Student recruitment

Edexcel's access policy concerning recruitment to our qualifications is that:

- they must be available to anyone who is capable of reaching the required standard
- they must be free from barriers that restrict access and progression
- equal opportunities exist for all students.

Prior learning

This qualification builds on the content, knowledge and skills developed in the Key Stage 3 Programme of Study for Design and Technology as defined by the National Curriculum Orders for England.

Progression

This qualification supports progression to GCSE in any of the five design and technology focus areas:

- GCSE Electronic Products
- GCSE Food Technology
- GCSE Graphic Products
- GCSE Resistant Materials Technology
- GCSE Textiles Technology

Support and training

Edexcel support services

Ask the Expert – To make it easier for you to raise a query with us online, we have merged our **Ask Edexcel** and **Ask the Expert** services.

There is now one easy-to-use web query form that will allow you to ask any question about the delivery or teaching of Edexcel qualifications. You'll get a personal response, from one of our administrative or teaching experts, sent to the email address you provide.

We'll also be doing lots of work to improve the quantity and quality of information in our FAQ database, so you'll be able find answers to many questions you might have by searching before you submit the question to us.

Training

A programme of professional development and training courses, covering various aspects of the specification and examination, will be arranged by Edexcel. Full details can be obtained from our website: www.edexcel.com

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Appendix 1: Candidate Assessment Booklet (CAB)

The Candidate Assessment Booklet (CAB) is a mandatory requirement for moderation. Work submitted for moderation will be returned to centres if the CAB is not included.

The CAB is an extremely important document for recording and supporting all assessment decisions made by the centre. Annotation should be provided in two ways:

- page annotation which corresponds with a student's portfolio
- assessor witness statements where physical evidence does not exist.

It is important that the CAB contains up to **three** full colour photographs/printouts of the final product in addition to being in the student's portfolio. Photographs showing details, and from different angles, are extremely beneficial for illustrating the final product.

Please ensure that both the candidate and assessor sign and date the CAB for authentication.

For electronic versions of CABs for Entry 1, Entry 2 and Entry 3 please refer to our website: www.edexcel.com

The following four pages show an example for Entry 1.

Entry Level Certificate in Design & Technology

Entry 1 Candidate Assessment Booklet (CAB)

Centre number:						Candidate number:				
Year of examination:						Candidate name:				

Focus area: (please circle)				
Resistant Materials Technology	Graphic Products	Textiles Technology	Food Technology	Electronic Products

Edexcel task:	
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Photographic Evidence:
<p>Please attach securely, in this space, at least one photograph clearly showing the completed product.</p> <p>Centres should use the space on the back page of this booklet for supplementary photographic evidence. The quality of photographs supplied must be sufficient to enable the moderator to see the quality of the outcome(s). Include close-ups of any detail where necessary.</p> <p>A maximum of three photographs should be used. (Please include more photographs in the candidate portfolio.)</p> <p>Digital cameras may be used but the photographs must NOT be digitally enhanced.</p>

Assessment evidence

Assessor to state the page number of relevant work in the candidate's portfolio OR tick the 'witnessed' box and complete the witness statement on page 42 where physical evidence does not exist.

Investigate	Page number	Witnessed
Write out the design brief and specification that have been given to you.		
Present some research that addresses some of the statements made in your design brief and specification.		
Design		
Draw one idea that meets most of the points in your specification. Electronic Products: Make a product that uses at least one input and one output component. Make the case you have designed or use one given to you by your teacher that you will make a modification to.		
Attempt minor and cosmetic changes to your original idea to come up with a final design proposal.		
Make		
Make a product that involves at least two different component parts using different materials/ingredients/components, equipment, techniques and processes.		
Electronic Products: Make a product that uses at least one input and one output component. Make the case you have designed or use one given to you by your teacher that you will make a modification to.		
Understand why some tools, equipment and processes, including CAD/CAM where appropriate, are used to make different component parts.		
Use adequate making skills with limited precision and accuracy.		
Make your product safely.		
Produce some finished component parts of satisfactory quality that remain either unassembled or poorly assembled and finished.		
Evaluate		
Evaluate what you have completed outlining one of its good points and one of its bad points.		

Assessor witness statement

This form should be used by the assessor to support all relevant assessment criteria. Please use as much detail as necessary to show that the candidate met the assessment criteria.

Assessment criteria	Comment of evidence	Date observed
1		
2		
3		
4		

Assessor name:			
Assessor signature:		Date:	

Candidate declaration			
<p>I hereby certify that this work has been produced without external assistance beyond that which is acceptable under the scheme of assessment and is recorded.</p> <p>IMPORTANT: both the candidate and assessor must sign this form.</p>			
<p>I give permission for this work to be used by Edexcel for training purposes. (please tick)</p>		<p>YES</p> <input type="checkbox"/>	<p>NO</p> <input type="checkbox"/>
Candidate signature:		Date:	
Assessor name:			
Assessor signature:		Date:	
<p>Photographic evidence: Centres should use this space for supplementary photographic evidence. A maximum of three photographs should be used in each CAB. The quality of photographs supplied must be sufficient to enable the moderator to see the quality of the outcome(s). Include close-ups of any detail where necessary.</p> <p>Digital cameras may be used but the photographs must NOT be digitally enhanced.</p>			

Appendix 2: Codes

Type of code	Use of code	Code number
National classification codes	Every qualification is assigned to a national classification code indicating the subject area to which it belongs. Centres should be aware that students who enter for more than one qualification with the same classification code will have only one grade (the highest) counted for the purpose of the School and College Performance Tables.	9010 – Electronic Products 9020 – Food Technology 9030 – Graphic Products 9040 – Resistant Materials Technology 9050 – Textiles Technology
National Qualifications Framework (NQF) codes	Each qualification title is allocated a National Qualifications Framework (NQF) code. The National Qualifications Framework (NQF) code is known as a Qualification Number (QN). This is the code that features in the DfE Funding Schedule, Section 96, and is to be used for all qualification funding purposes. The QN is the number that will appear on the student's final certification documentation.	The QN for this qualification is: 600/7160/6
Entry code	The entry code is used to: <ul style="list-style-type: none"> • enter a student for assessment • claim certification of a student's grade for the qualification. 	The entry code for this qualification is 8911. Please refer to the <i>Edexcel UK Information Manual</i> , available on the Edexcel website for the entry codes of other qualifications.

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**For more information on Edexcel and BTEC qualifications
please visit our website: www.edexcel.com**

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