



Bideford College Technology: Key Stage 2 – 4 Progress Matrix

4.2 Assessment objectives

AO1: Identify, investigate and outline design possibilities to address needs and wants.

AO2: Design and make prototypes that are fit for purpose.

AO3: Analyse and evaluate:

- design decisions and outcomes, including for prototypes made by themselves and others
- wider issues in design and technology.

AO4: Demonstrate and apply knowledge and understanding of:

- technical principles
- designing and making principles.

AO		In order to get a grade 1 at GCSE you must be able to	In order to get a grade 2 at GCSE you must be able to	In order to get a grade 3 at GCSE you must be able to	In order to get a grade 4 at GCSE you must be able to	In order to get a grade 5 at GCSE you must be able to	In order to get a grade 6 at GCSE you must be able to	In order to get a grade 7 at GCSE you must be able to	In order to get a grade 8 at GCSE you must be able to	In order to get a grade 9 at GCSE you must be able to
AO1 Identify, investigate and outline design possibilities to address needs and wants	Research and investigation	T1.1: collect basic information relating to the design brief.	T2.1: collect and use basic information relating to the design brief with some independence.	T3.1: independently collect and analyse information, from different sources, relating to the design brief.	T4.1: use & evaluate information from a range of sources to identify and understand different user needs.	T5.1: use and evaluate a wide range of appropriate research to developing ideas for a range of users.	T6.1: show discrimination when selecting relevant research to promote originality in developing ideas.	T7.1: use information to help designing that shows outstanding understanding and analysis of the task.	T8.1: show discrimination, consistently and independently to source research to help with design thinking.	T9.1: show outstanding & perceptive analysis of task, to include user needs and a profiled target market.
	Outline Design Possibilities	T1.2: produce a simple specification that responds to some needs of the situation or brief.	T2.2: produce a specification that responds to the situation or brief and designs that reflect this.	T3.2: develop a specification to inform the design of appealing products and that respond to the brief.	T4.2: develop a detailed specification to inform the design of appealing products that match the brief.	T5.2: develop a detailed specification that aids the design of functional and appealing products.	T6.2: draft a well-structured specification that reflects the analysis and research undertaken.	T7.2: reflect the analysis undertaken with innovative, functional and appealing products.	T8.2: develop specific design criteria to reflect the analysis to create innovative, appealing products.	T9.2: recognise desirable and essential design criteria to create innovative, appealing products.
AO2 Design and make prototypes that are fit for purpose	Designing	T1.3: create basic ideas and know that ideas need to meet certain needs.	T2.3: create a range of ideas and show basic development by using varied types of information.	T3.3: explain different ideas using words, sketches and simple models that reflect the specification	T4.3: use models and drawings to explore and test design ideas with users and develop detailed plans.	T5.3: investigate form, function & communicate ideas, using a variety of media.	T6.3: create and develop imaginative ideas, based on the properties and characteristics of materials.	T7.3: work from detailed plans that make the best use of time and resources.	T8.3: consistently and independently work from detailed plans to make the best use of time and resources.	T9.3: use detailed technical drawings and models to develop imaginative, innovation and original ideas.
	Planning and prototype	T1.4: make a list of materials and parts needed to make a product.	T2.4: identify the materials and parts needed and describe how to make a product with prompts.	T3.4: identify materials and parts and describe how to make a product with a list of tools and equipment.	T4.4: explain how to make a product with appropriate tools/equipment and reference to health and safety.	T5.4: plan the making using timings and Include appropriate tools/equipment and health and safety.	T6.4: suggest manufacturing processes and tools/equipment that could be used.	T7.4: give fully detailed quality control points and detailed and accurate timings and health and safety.	T8.4: independently plan how to make a product using appropriate tools & detailed quality control points.	T9.4: independently plan a product using advanced skills & techniques & detailed quality control points.
	Making	T1.5: with help where needed, use some	T2.5: select and use a range of materials,	T3.5: can make simple products that are	T4.5: select and use specialist tools and	T5.5: correctly and safely use a range of	T6.5: carry out processes accurately &	T7.5: work safely and with specialist tools,	T8.5: work independently and safely with	T9.5: can make demanding high

		basic techniques and understand a few processes.	and components, tools and equipment with some accuracy.	correctly assembled, working with a range of tools or processes.	equipment paying attention to safety and finish quality.	specialist tools and processes to produce high quality products.	consistently, and use a wide range of tools safely with precision.	equipment, to produce products that demonstrate challenge.	specialist tools and components to a make demanding products.	quality products that could be commercially viable with further development.
AO3 Analyse and evaluate	Analyse design decisions and outcomes, including for prototypes made by themselves and others	T1.6: able to solve basic design problems with prompts.	T2.9: able to solve design problems using basic research.	T3.9: able to identify and solve design problems using relevant research.	T4.6: identify and solve design problems, developing and changing ideas using research.	T5.9: identify & solve design problems to adapt & develop ideas using problems given to create solutions.	T6.9: resolve a range of design problems including social, moral, environmental and sustainability issues.	T7.9: consider the implications of a wide range of issues to add to the development & making of products.	T8.9: fully consider the implications of a wide range of issues to inform complex product development.	T9.6: fully consider a wide range of issues & the views of others to inform complex product development.
	Evaluate wider issues in design and technology.	T1.7: carry out basic testing on a product.	T2.6: test and evaluate against the specification and make simple suggestions for improvement.	T3.6: test and evaluate against the specification to identify areas for improvement.	T4.7: test and evaluate and use the information to make judgments on designing and making next time.	T5.6: testing and evaluating how products would perform when in use in order to refine ideas and products.	T6.6: identify a broad range of criteria for evaluating products, and refine ideas to improve them.	T7.6: identify a specific range of criteria for evaluating products and modify to improve the performance.	T8.6: identify an extensive range of criteria to evaluate products and modify to improve performance.	T9.7: modify products in light of the evaluation to improve their performance and commercial viability.
AO4 Demonstrate and apply knowledge and understanding of .	Technical principles Designing and making principles	T1.8: recall facts, key terms and basic concepts without understanding.	T2.8: explain and demonstrate basic understanding of facts, key terms and basic concepts.	T3.8: transfer knowledge from an understanding of facts, key terms and basic concepts.	T4.8: transfer and analyse knowledge from an understanding of facts, key terms and basic concepts.	T5.8: analyse information, breaking it into parts to identify causes and find evidence to support details.	T6.8: critically assess information and use it in a different way to propose alternative solutions.	T7.8: justify and present opinions by making judgments about information based on a set of criteria.	T8.8: independently justify and present opinion and make a considered judgment based on a set of criteria.	T9.8: independently justify and present complex and reasoned opinions to make a considered judgment.
Presentation		T1.9: demonstrate of basic communicating and presentation skills.	T2.9: evidence of communication and presentation at basic level with little use of technical language.	T3.9: some attempt has been made to convey the details of designing and making.	T4.9: use a limited range of materials, techniques and media to convey the details of designing and making.	T5.9: communicate design ideas and decisions using different media and techniques.	T6.9: use imagination, experimentation and combine ideas when designing.	T7.9: very good range of appropriate materials and techniques used to convey details of designing and making.	T8.9: wide range of appropriate materials and techniques used to convey details of designing and making.	T9.9: excellent level of presentation & competent use of appropriate technical language without any error.
Literacy / QWC		T1.10: ideas communicated at a simplistic level with a limited use of technical vocabulary.	T2.10: ideas communicated at a simplistic level with a limited use of technical vocabulary.	T3.10: ideas communicated at a simplistic level with a limited use of technical vocabulary.	T4.10: ensure text is legible, easily understood with a good grasp of grammar, punctuation and spelling.	T5.10: all work communicated in a clear and coherent manner with appropriate used of technical language.	T6.10: use key design and technology terminology including those related to materials and technologies.	T.710: use key design and technology terminology including those related to critiquing, values and ethics.	T8.10: complex ideas expressed clearly and fluently in a structured and relevant way, with few errors.	T9.10: demonstrate exceptional skills in retaining, applying and analysing information to underpin knowledge.