Unit 7: Design Methods in Art and Design

NQF Level 3: BTEC National

Guided learning hours: 60

Unit abstract

When developing designs to meet the requirements of a brief, the development cycle used is vital in ensuring effective outcomes. The application of a design methodology will ensure that all significant factors are considered structured way. Designers need to be able to develop and communicate their ideas and concepts through 2D and 3D skills. It is important for learners to develop the necessary knowledge, skills and understanding to enable them to communicate their intentions effectively.

In this unit learners will develop an understanding of the importance of using the appropriate methods to achieve their creative intentions. They will develop ideas and focus concepts within the confines of specific briefs. They will learn to communicate their ideas and intentions professionally, through visual and verbal communication and the consultation process.

Briefs should be written and presented in a vocational context in order for learners to work on realistic scenarios and outcomes. Projects can be set in both 2D and 3D areas to meet the specific needs of learners.

Learners will develop the necessary research and analysis, synthesis, time management skills, as well as teamwork and organisational skills. Learners will be introduced to the design development cycle and its application to specific project briefs.

Learners will be made aware of any relevant legal constraints such as copyright, building regulations and health and safety issues associated with specific materials, techniques and practices.

The unit gives learners the opportunity to explore all areas of visual communication, including concept sketches, experimental and scale modelling, proofs, mood boards, colour boards and final presentations.

Learning outcomes

On completion of this unit a learner should:

1 Understand the design development cycle and its phases

2 Be able to use the design development cycle effectively in their own work

3 Be able to communicate ideas and intentions clearly

4 Be able to work safely and constructively with others.

Unit content

1 **Understand the design development cycle and its phases**

Analysis and clarification of the brief: establish specific requirements and restrictions, discuss and determine definitions, establish common understanding of any ambiguous areas

Planning: establish a timetable, organise meeting schedule, allocate time and resources

Research: the work of others eg historical and contemporary examples of similar work in other areas that may be appropriate; traditional and non-traditional materials, related techniques and processes, subject of 'themed' briefs (where applicable)

Development of initial ideas: eg brainstorm, mood boards, rough sketches, exploratory models, alternative solutions

Design concepts: eg 2D visuals, proofs, mock-ups, maquettes, samples, test pieces

Review and modification: discuss, select and reject initial ideas as necessary, propose and implement alterations

Consultation: with clients, end users, interested parties, colleagues

Final outcome: eg artefacts, designs for production, prototypes, presentation of designs in response to brief

Evaluation: assess the effectiveness of project elements, eg time management, outcome(s) against brief, strengths and weaknesses

2 **Be able to use the design development cycle effectively in their own work**

Identify and clarify design opportunities: consult with clients, colleagues and end-users

Develop ideas in response to research and the brief: record ideas, eg written notes, sketches, concept-models; modify initial ideas, eg alternative materials, stylistic alterations, physical alterations; produce experimental or scale models

Produce effective design solutions: show alternative options; use consultation feedback from clients and other users; select solutions in order of preference that match the requirements of the brief

3 **Be able to communicate ideas and intentions clearly**

Consult with clients and others: verbally, using appropriate language, professional terms and conventions (both written and spoken)

Communicate intentions: visually eg, creative visuals, models, technical drawings, clear annotations, proofs

4 **Be able to work safely and constructively with others**

Work within health and safety and other legal constraints: eg building regulations, Disability Discrimination Act (DDA), copyright law, Care of Substances Hazardous to Health (COSHH); safe operation of tools and equipment; maintaining a safe studio environment

Grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The criteria for a pass grade describe the level of achievement required to pass this unit.

Grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 explain the design development cycle and its phases	M1 consistently show a clear understanding and effective application of the design development cycle	D1 show independence and creativity in the application of the design development cycle, producing professional outcomes based on highly-focused research and collaborative development of ideas.
P2 use the design development cycle effectively in their own work	M2 use both verbal and visual communication with others confidently and effectively.	
P3 communicate ideas and intentions clearly		
P4 work safely with others.		

Essential guidance for tutors

Delivery

This unit has been designed to give tutors the opportunity to engage learners in realistic projects through the presentation of professional briefs. Projects should be set to reflect current professional practice. Depending on the choice of specialist area, projects should be set so that learners use a wide range of media, materials and processes. Tutors should use a wide range of realistic scenarios in order to motivate, inspire and stimulate learners.

This unit should be delivered through a practical programme, so that learners gain an understanding of design methods through experience rather than theory. In particular, learners should have enough exposure to professional practice to recognise the significance of a methodical approach to solving design problems, particularly within a team.

It is equally important to show that there is no single method or design process that can be applied to all creative work. There is a difference between the free exploration and origination of ideas, and how they can be developed to meet specified design requirements.

Health and safety issues relating to studio, workshop and relevant specialist areas, should be stressed throughout. Learners will need to be guided through current legislation such as the DDA, building regulations and copyright laws.

Learning outcomes 1 and 2 are closely linked and offer the chance to learn from experience. They cover the concept of design development in response to a given brief, the recording of initial ideas, the discussion of ideas with other parties and the alteration and improvement processes used in response to these. Learners will need to participate in the analysis and questioning of the brief's directives.

Learning outcome 1 covers of work sequences, time management, setting and meeting targets within deadlines, adapting to new demands when they arise, and organising resources when planning and developing work. Learners will also learn how to, through research, select, find and use relevant information and reference materials. Learners will review work in progress and implement modifications to improve their design ideas.

For learning outcome 2 learners will demonstrate their understanding of the design cycle through responding to briefs. The briefs should be structured to enable learners to develop their understanding of the design cycle and their ability to apply it in a variety of different contexts.

Learners should also be encouraged to question their own and others' learning outcomes at all stages. Learners should test their outcomes through prototypes, proofs, maquettes or other appropriate pre-production models and mock-ups.

Learning outcome 3 covers the communication of ideas through appropriate methods. This ability is fundamental to the design profession and learners should be given opportunities to communicate their ideas in a number of formats. They should be taught to use suitable written and verbal language and to communicate through both 2D and 3D representations as appropriate. Learners need to learn how to work constructively with others. They need to develop appropriate communication skills in order to use language clearly, creatively, accurately and effectively

Learning outcome 4 covers professional practices and legal requirements. Learners should be taught where to seek legal documentation relevant to their specialist design area. Learners should also be taught what legislation relates to their chosen field and how it restricts work within specific briefs.

Learners will need to be made aware of up-to-date health and safety legislation. They will need to use their understanding to maintain a safe, healthy and secure environment and act responsibly themselves and with others in their team.

Assessment

To achieve a **pass** grade, learners must achieve the four pass criteria listed on the grading grid.

For P1, they will be expected to demonstrate their awareness and understanding of the factors that affect the design development cycle. They will need to analyse and respond to a brief as well as analysing and evaluating their own design process, demonstrating which factors have influenced development.

For P2, learners need to produce effective design solutions, to a given brief, as a result of the development cycle. Learners will need to demonstrate and support changes made to their initial ideas. Assessment evidence for P1 and P2 should come from practical work and should include written analysis and evaluation as well as design visuals.

For P3, learners need to communicate ideas and intentions at all stages of the design development cycle. As well as the practical work produced, assessment evidence might be generated through correspondence, witness statements or observation records.

P4 is concerned with learners working safely and constructively with others. Again there is the possibility of assessment evidence coming from witness statements and observation records, as well as from practical work.

To achieve a **merit** grade, the learner must achieve all of the pass grade criteria plus the two merit grade criteria.

For M1, learners should be able to consistently and independently demonstrate in-depth understanding. At this level learners will be expected to explore and act upon a range of factors that influence design outcomes. They will be expected to develop their ideas thoroughly, and produce a variety of prototypes and pre-production fabrications. Learners would also be expected to carry out regular analysis and evaluation throughout the development. Learners should demonstrate a greater independence when planning their work and selecting outcomes to be developed.

M2 requires learners to consistently and confidently communicate with others. Tutors would expect learners to demonstrate greater confidence in all areas of communication.

To achieve a **distinction** grade, the learner must achieve all of the pass and merit grade criteria plus the one distinction grade criterion.

Research and development should be wide ranging and show that learners have responded intelligently to the demands of the brief. The work presented should be of a high standard and clearly show that the design development cycle has been applied to produce professional outcomes.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit plays a fundamental role in all design specialist areas and in the development of communication skills and specialist vocabulary. It can be linked to *Unit 9: Professional Practice in Art and Design* where learners produce work to meet design briefs and demonstrate their understanding of legal requirements and constraints.

Essential resources

Learners will need access to a wide range of resources and facilities dependent on their chosen area of specialisation. Suitable studio and workshop space will enable learners to develop 2D and 3D work. Library, internet and telephone access will allow research and communication. Suitable computer access with relevant software would enhance the experience and support the achievement of learning outcomes.

Indicative reading for learners

Books

Benton T and Benton C (eds) — *Form and Function: a source book for the history of architecture and design 1890-1939* (Crosby Lockwood Staples, 1975)

Bower J — *Introduction to Two-dimensional Design: Understanding Form and Function* (John Wiley & Sons Inc, 1999)

De Sausmarez M — *Basic Design: The Dynamics of Visual Form* (Herbert, 2002)

Grillo P J — *Form, Function and Design* (Constable, 1975)

McDermott C — *Essential Design* (Bloomsbury, 1992)

Peto J — *Design Process, Progress, Practice* (London Design Museum, 1999)

Powell D — *Presentation Techniques* (Little Brown, 1990)

Key skills

Achievement of key skills is not a requirement of this qualification but it is encouraged. Suggestions of opportunities for the generation of Level 3 key skill evidence are given here. Tutors should check that learners have produced all the evidence required by part B of the key skills specifications when assessing this evidence. Learners may need to develop additional evidence elsewhere to fully meet the requirements of the key skills specifications.

Communication Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• discussing their own and others' work and views • analysing the brief and other directives	C3.1a Take part in a group discussion.
• presenting their own project and/or final outcomes	C3.1b Give a talk of at least eight minutes using an image or other support material.
• researching the work of others or analysing relevant legal documents.	C3.2 Read and synthesise information from at least **two** documents about the same subject. Each document must be a minimum of 1000 words long.
Information and communication technology Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• researching the work of others, tracking down suppliers or manufacturers, seeking relevant legislation.	ICT3.1 Search for information, using different sources, and multiple search criteria in at least one case.

Improving own learning and performance Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• developing a timetable of events for completion of the brief • implementing their timetable of events and applying the design development cycle • analysing and evaluating their progress against the brief and their own timetable of events.	LP3.1 Set targets using information from appropriate people and plan how these will be met. LP3.2 Take responsibility for your learning, using your plan to help meet targets and improve your performance. LP3.3 Review progress and establish evidence of your achievements.
Problem solving Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• analysing and evaluating the brief and developing a timetable and design development cycle • carrying out the design development cycle • evaluating and altering their ideas in order to reach successful outcomes.	PS3.1 Explore a problem and identify different ways of tackling it. PS3.2 Plan and implement at least one way of solving the problem. PS3.3 Check if the problem has been solved and review your approach to problem solving.
Working with others Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• negotiating the brief or engaging third parties such as suppliers or craftspeople • communicating with clients and others during the design development cycle • communicating with clients and others during the design development cycle.	WO3.1 Plan work with others. WO3.2 Seek to develop co-operation and check progress towards your agreed objectives. WO3.3 Review work with others and agree ways of improving collaborative work in future.