Unit 31: 2D Animation Production

NQF Level 3: BTEC National

Guided learning hours: 60

Unit abstract

Animation has become an increasingly important media form and examples can be seen in platforms as different as advertising, feature films, mobile phone content, the internet and television. Good animation skills are also important in the computer games industry.

The animation industry includes both large production companies and individuals working on small digital projects. Animation on all scales requires people with fresh, exciting ideas for new work, whilst larger companies will need individuals with specialist skills, such as storyboarding and 'tweening,' or the evidence to prove that they can develop them. This unit provides learners with the opportunity to develop their competence in both areas of work.

To have a successful career in animation requires, first of all, good drawing skills, as these are a key requisite to get into the industry. Second, it requires the ability to develop fresh ideas for content which will engage the chosen audience. Also, a good animator will take into account at all stages the role of animation as communication, whether this be for entertainment or information. It always aims to move beyond simply creating moving shapes on a screen.

The unit focuses on developing learners' skills in the production of 2D animations using traditional or digital techniques, or a combination of the two. Learners will work on design, character, setting and narrative whilst also developing production techniques. Learners will be encouraged to experiment with both content and technique.

As essential background, learners need to research the content and production techniques used in historical and contemporary examples of work. Learners need to understand such things as persistence of vision, frame rates, stop-frame techniques and the production of cells. This background will inform production work whether using traditional methods or some of the digital tools for 2D animation now available.

In order to develop their understanding and skills, learners will need to keep their intended audience constantly in mind, and to that end their animation work will be exhibited to audiences after completion and responses evaluated.

Learning outcomes

On completion of this unit a learner should:

1 Understand the techniques and styles used in animation

2 Be able to plan a 2D animation with soundtrack

3 Be able to produce a 2D animation using traditional or digital methods

4 Understand how to evaluate audience responses to a piece of animation.

Unit content

1 **Understand the techniques and styles used in animation**

Origins of the moving image: pioneers and techniques eg Joseph Plateau (phenakitoscope), William Horner (zoetrope), Emile Reynaud (praxinoscope), Edward Muybridge, Edison (kinetoscope), Lumière brothers

Contemporary sources: music videos; advertising; feature films; TV programmes; computer games; digital exhibition of animation eg mobile phones, internet

2 **Be able to plan a 2D animation with soundtrack**

Choice of possible formats: suitability for resources available; appropriateness for chosen style eg, stop-frame techniques, flip book, animatic, filmstrip, time lapse photography, sequential photographs, collage, index cards, cut-out animation, cell animation, mark making on film

Generation of ideas: visualisation; characters; backgrounds; storylines; audio; working within technical limitations

Consideration of audience appeal: definition of audience, eg by age, by gender, by interests; taste; viewing context

Planning: designs; drawings; storyboarding; consideration of movement; continuity; frames per second; perspective; soundtrack design; point of view, eg changes or extents of an action or movement

3 **Be able to produce a 2D animation using traditional or digital methods**

Components of production: format; camera ready content; narrative; music; special effects; cuts; transitions; timing; frame numbers; dope sheets

Camera: framing; angle; movement; lighting; appropriate point of view

Post-production audio: soundtrack; dialogue; synchronisation; levels scanning; use of software; key frames

For digital production: use of software application, eg Flash, Photoshop, After Effects

4 **Understand how to evaluate audience responses to a piece of animation**

Showing work to audiences: screenings; festivals; websites

Collecting audience responses: discussions; questionnaires; reviews; focus groups; feedback from online exhibition

Audience responses: to genre; to content; to style; to narrative; to character; to techniques; to technical qualities; to aesthetic qualities; to creative qualities

Reporting findings: oral presentation; written report; action plan; review

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 describe the development of techniques used to create movement and effect in animations expressing ideas with sufficient clarity to communicate them and with some appropriate use of subject terminology	M1 explain the development of techniques used to create movement and effect in animations with reference to well-chosen examples expressing ideas with clarity and with generally appropriate use of subject terminology	D1 fully explain the development of techniques used to create movement and effect in animations with supporting arguments and elucidated examples expressing ideas fluently and using subject terminology correctly
P2 design a short 2D animation piece working within appropriate conventions	M2 design a short 2D animation piece effectively with some imagination	D2 design a short 2D animation piece with creativity and flair
P3 produce a 2D animation working within appropriate conventions with some assistance	M3 produce to a good technical standard and with some imagination a 2D animation piece with only occasional assistance	D3 produce a short 2D animation of technical quality that reflects near-professional standards and shows creativity and flair, working independently to professional expectations

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:
P4 describe audience responses to own animation work expressing ideas with sufficient clarity to communicate them and with some appropriate use of subject terminology.	M4 explain audience responses to own animation work with reference to well-chosen examples expressing ideas with clarity and with generally appropriate use of subject terminology.	D4 critically evaluate audience responses to own animation work with supporting arguments and elucidated examples expressing ideas fluently and using subject terminology correctly.

Essential guidance for tutors

Delivery

Successful delivery of this unit should begin by establishing for learners that the importance of animation has grown in recent years. Even brief discussion is likely to demonstrate that much animation work is now shown on mobile phones, 2D games, the internet, music video and advertising as well as more traditionally in television and film. Learners may well be aware of the success of recent animated feature films, the companies which produced them (such as Aardman and Pixar) and the fact that the audience for animation is not limited to children. Learners are likely to have some background awareness of the role of digital techniques in animation production and should be encouraged to reflect on this. They should also understand, however, that although digital packages are frequently used, core skills such as drawing are still needed in the industry.

Consideration of the development of 2D animation and the techniques used to produce it can be encouraged through tutorials, lectures and screenings. Research by individual learners, especially in relation to material screened online, is another strategy likely to be productive. The outcomes of this research could be shared by learners in the form of a screening and presentation within a seminar session.

Visits to studios, screenings and exhibitions are also likely to provide material to support the understanding of techniques and styles of animation, its development and current position. These activities should, in turn, inform the planning and production processes used in practical work. Contact with aspects of the animation industry is highly desirable. Centres should aim to develop contacts with studios or freelance animators or individuals with specific relevant skills such as designers, illustrators of software experts. These professionals can provide learners with awareness of industry practice, offer insights through discussion of both professional and learner work and inform the design of assignments to ensure that their relevance to industry practice. In addition, learners can obtain valuable insights through accessing material where animators discuss the techniques used to make their work. Much of this exists on DVD, in books and on websites.

Learners will need to be made aware of the wide variations existing in the animation industry. Whether through lectures, research or contact with professionals, it is important that learners are aware that the needs of large production companies and individual professionals working on small digital projects can be quite different, though animation on all scales requires people with fresh, exciting ideas for new work. Centres should ensure that learners have insight into more than one type of company and the employment opportunities it might provide: smaller companies are likely to require multi-skilled individuals whilst larger companies will need individuals with specialist skills such as storyboarding, or the evidence to prove that they can develop them.

Workshops and demonstrations will be required to illustrate the production potential of the facilities available. Centres should aim to bring learners into contact with work produced through as wide a range of techniques as possible. Learners should have the chance to become familiar with any software applications prior to undertaking the production stage. Short, non-assessed projects are an effective way of developing familiarity with the functions and potential of a piece of software prior to an assignment. Learners should be encouraged to experiment within this unit and to be aware of the industry need for fresh, dynamic ideas and designs.

Centres should be sure that learners are aware of methods used to gather and interpret audience responses whilst still at the design stage, both to inform the content of the piece and to devise appropriate exhibition and feedback activities. Learners should be encouraged to explore ideas for character and narrative structure, perhaps through a series of tutorials where ideas can be pitched at a tutor or visiting professional.

Production management techniques will be key to learners using time and resources effectively in their animation work. This unit offers learners an opportunity to implement skills acquired elsewhere in their programme as well as an opportunity to develop techniques in planning, logging and scheduling.

Learners will need the opportunity to screen their work to members of a relevant audience. As a minimum this could simply involve using other members of their class as audience and recording their responses in one of the ways identified. More challenging for learners would be organising a public screening or contributing work to an existing event involving a wider public, including members of the target audience. Entering work festivals or publishing work on line and recording responses would be valuable, although with internet exhibition learners will need to be aware of the issues around the authenticity of respondents to online questionnaires.

Formal lectures and tutorials are likely to be most appropriate for providing information about the various techniques of methods of recording audience response and the strengths and weaknesses of each.

Assessment

Evidence for assessment

Evidence for the achievement of learning outcome 1 could be an oral presentation, a written report or a portfolio of work on techniques which have been significant in the development of animation and on current techniques. The presentation could be illustrated with a screening of clips and the report or portfolio illustrated by screen grabs. Presentations must be recorded for the purposes of internal and external verification.

As evidence of achievement of learning outcome 2 learners could present a treatment identifying the content of a proposed animation along with drawings and designs for characters and backgrounds, storyboards and other appropriate pre-production documentation. They might also give a presentation or pitch on their proposal — ideally to a visiting practitioner.

Evidence for achievement of learning outcome 3 will be a piece of animation. This could be an advertisement, a channel ident or a short piece of narrative lasting from 15 seconds to one minute. It should be clear, in the case of group work, which learner is responsible for which elements of the concept, design and production. It should also be clear which learner has produced drawings, collage, photographs or other 2D work, including the use of animation software. Evidence of camera operation and direction will also be required, along with soundtrack production and video post-production techniques. Learners are required to generate evidence for all grading criteria and centres may need to set assignments which require two or more pieces of animation in order for this to be possible within the context of group work. The technical skills demonstrated should show use of one of the recognised animation techniques.

It must be clear, in the case of group work, which learner is responsible for which elements of the concept, design and production. It should also be clear which learner has produced drawings, collage, photographs or other 2D work, including the use of animation software.

Resource issues may determine the size of production groups. Individual animation pieces made by learners working on their own should provide a minimum opportunity to demonstrate evidence to satisfy all grading criteria. Two pieces would provide an opportunity for those learners to consolidate learning and further develop their skills.

For learners working in small groups, centres must provide sufficient product opportunities for all members of a group to demonstrate evidence to satisfy all grading criteria. This is likely to require the completion of a minimum of two animation productions. In group productions, the identification of learners with responsibility for specific tasks will be required in order for evidence to be assessed.

In terms of organisation, one animation assignment may provide opportunities for learners to generate evidence to satisfy grading criteria in two or more units. Additionally, centres are advised to consider a brief with a relatively short running time, 15 seconds to one minute is a reasonable range.

Achievement of learning outcome 4 could be evidenced through a written report, an oral presentation or some form of structured audio-visual statement. Presentations should be recorded for the purposes of verification. Learners will need to screen their work in front of an audience or arrange for their work to be uploaded to a website in order for audience members to view the production and respond to it.

For some elements of this unit, and for some learners, a formal *viva voce* assessment might be appropriate. When more than one learner in a cohort is assessed in this way care must be taken to ensure that all learners are asked equivalent questions, and that all are given equal opportunities to expand or clarify their answers. Interviewers must also ensure that questions are not phrased in such a way as to provide or suggest an answer. Formal v*ivas* should be recorded for the purposes of internal and external verification and at least 50 per cent of such assessments must be internally verified.

Application of grading criteria

When applying the grading criteria, tutors should follow the advice given below. Please note that any examples of evidence given here are indicative only. This advice is not exhaustive and the examples need not specifically be included in a learner's work in order for that learner to achieve the exemplified grade.

Pass

To achieve a pass grade, learners must achieve all the criteria at pass level.

P1: at this level the work presented will correctly identify the techniques used in the examples chosen and refer to the animation genre to which they belong, with accurate and substantially complete discussion of the development of animation. For example, 'Some animations didn't use enough frames per second and it makes movement look jerky.'

P2: learners will provide an indication of how the proposed animation will be produced and how the style is appropriate to the content. The intended audience will be briefly described, together with possible screening plans. Drawings and designs for characters and backgrounds will be provided although they may not be totally clear. Storyboards will indicate storyline, camera movement and soundtrack but may fall short of a completely detailed approach. A production schedule will also be provided but will lack detail and may be unrealistic in places.

P3: at this level the content and style of a production is likely to be predictable and conventional and learners may have required support and encouragement during both the planning and the production processes. If they are in frequent need of such help but fail to make positive use of it they should not be considered for a pass grade for this criterion.

P4: at this level learners are unlikely to have gone beyond a screening to other learners and are likely to require assistance and support in organising even that. They will arrange a recorded discussion or devise, distribute and collect questionnaires in order to record audience response. Responses will be recorded without further comment or discussion. The pass level learner might write: 'Most of the audience enjoyed the animation. They liked the figures I used but did not like the red background.'

P1 and P4: when expressing themselves orally, learners' language skills will be sound and they will be able to express themselves with sufficient clarity to be understood, though vocabulary — and in particular technical vocabulary — will be limited, and register will not always be appropriate to the situation or audience. When expressing themselves formally in writing, learners' skills will be basic, typically with frequent errors of spelling and punctuation and occasional lapses in grammar and syntax. Generally, language skills will be adequate for learners to communicate simple ideas or deal with straightforward material.

Merit

To achieve a merit grade, in addition to achieving all the criteria at pass level, learners must achieve all the criteria at merit level.

M1: learners will explain the development of animation by reference to well-chosen examples of the work of key figures in the development of animation from its beginnings to the present, paying attention both to the content of the work and the techniques used to produce it. In discussing more recent or current work they will typically note the company which produced this work, the techniques they use and the audience they are addressing. Learners at this level will show some understanding of movement expressed in a range of ways identifying traditional and non-traditional techniques.

M2: learners will be able to offer competently presented drawings and designs for characters and backgrounds, a script and a storyboard. This might demonstrate a consideration of movement and continuity, perspective, point of view, transitions and special effects. Evidence of timing and synchronisation to a soundtrack will be produced but it will not always be precise. At this level learners will be aware of the conventions used in storyboard production and will use them with clarity. They will be able to use appropriate terminology. The production schedule will be clear and realistic.

M3: learners will have used the chosen format effectively and the finished animation will be clearly recognisable as the piece described in the treatment. If the piece is, for example, a short advertisement for a chocolate bar, the conventions of that form will be followed, but they will be developed with some imagination: the name of the product, its appeal and target audience will be clearly communicated. Technical errors should be rare and not interfere with audience reception. Motion will be fluent. The soundtrack is likely to use at least two tracks, as well as video post-production techniques including synchronisation. Merit level learners may require occasional support with technical issues at both the planning and the production stages, particularly when dealing with more complex technology or trying to apply more sophisticated techniques, but they will make good use of any advice or help offered. Like the pass grade learner, they will benefit from it.

M4: detailed approaches will be used to collect the responses of audience members, and consideration of these responses will identify the key findings and patterns which emerge, as well as evaluating the types of approach used. For example, 'The results of the survey show that people in older age groups were unable to understand some of the humorous references to other, more recent animations.'

M1 and M4: when expressing themselves orally, learners' language skills will be good and they will be able to express intentions and ideas clearly using, for the most part, the right word in the right context, including technical vocabulary and the kind of language used in the industry. Register will be generally appropriate, with perhaps occasional lapses. When expressing themselves formally in writing, learners' skills will be sound with typically few lapses in grammar and syntax, though there might be some errors of spelling and punctuation. Generally, language skills will be good enough for learners to be able to express fairly complex ideas and to handle material of moderate difficulty.

Distinction

To achieve a distinction grade, in addition to achieving all the criteria at pass and merit level, learners must achieve all the criteria at distinction level.

D1: learners will show understanding of movement expressed in a wide range of ways using combinations of traditional and non-traditional materials, processes, techniques and technologies and these techniques will be given a full and clear explanatory discussion. The impact of each technique will be critically considered and linked to examples of both past and contemporary animators, their work and influence on others. These examples will be elucidated to show clearly how they illustrate the points and ideas they are being used to support. Awareness of the role of animation will be detailed and learners at this level will make connections across the range of work they have considered — for example, between elements in commercial entertainment and advertising, fantasy and propaganda, and the experimental and artistic contexts.

D2: plans at this level will show a full consideration of movement and continuity, perspective, point of view, transitions and special effects. They will clearly have been developed from and informed by the work done for learning outcome 1. Precise and workable planning of timing and synchronisation to a soundtrack will be produced at this level. It will be clear at this stage, from the documentation, what the finished piece will look and sound like. Learners will follow the industry conventions and terminology used in storyboard production correctly. Drawings, script and storyboard will all show a creative interpretation of the brief. For example a channel ident for a new TV station would demonstrate not only a sense of audience address in keeping with the channel content and appeal but would also be based on original and clever ideas.

D3: learners will use one or more of the recognised techniques with confidence, creativity and to near-professional standards of technical skill. Technical errors will not be evident to the target audience and the form of the animation will enhance the meaning of the piece, for example through the use of a specific style to produce recognition and response from the audience. The content will be fit for purpose being sufficiently different to attract attention. Learners will apply their technical skills not just with imagination but with ingenuity and even elegance, and codes and conventions will be used with occasionally surprising results. The designs or artwork which form the basis of the animation will show an element of individual flair, and narrative or structure used will be more than simply derived from existing work. Camera operation will use a range of points of view, movement and angles. The soundtrack is likely to contain material recorded specifically for the production and to be more complex — for example, it might use two or more audio tracks, or a series of FX and dialogue synchronised in post-production. The documentation linked to the production will be full and detailed and there will be evidence that the production management and scheduling of the project has been effective and carried out in a professional manner. The techniques used in the production of the work are likely to be related to an understanding of current trends in the industry. In all practical activity distinction level learners will be capable of working autonomously and effectively. The term ‘working independently’ means that they are able to work on their own initiative, do not need constant support or supervision, give the work their full commitment, work positively and cooperatively with others, and meet deadlines. In other words, they have the kind of self-management skills that would be expected of them in a professional context. Note also that this criterion should not be taken to mean that learners do not seek advice or that they work without discussing things with their tutor, but rather that they are not dependent upon the support of others and that when they take advice they weigh it carefully for themselves.

D4: distinction level learners will typically show more initiative in the ways they choose to exhibit their work to audiences, such as by submitting their work to festivals or on line competitions, as well as the methods mentioned above. They will produce a presentation or report which considers the data collected critically and relates it strongly to the strengths and weaknesses of their own work. The presentation is likely to place their animation in context and explore their choice of narrative, characters, technique used and visual style in relation to audience appeal. For example, ‘The individual interviews I carried out revealed that the younger viewers had not understood the intercutting techniques I used and had become confused about the sequence of events in the narrative.’

D1 and D4: when expressing themselves orally, learners will speak with fluency, using a wide vocabulary and deploying both general and technical language with accuracy and confidence. Register will always be appropriate. When expressing themselves formally in writing, learners' skills will be good with typically quite complex sentence structures, very few grammatical errors and infrequent errors in spelling and punctuation. Generally, language skills will enable learners to express complex ideas and to handle difficult material.

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

There are opportunities for key skills in this unit.

This unit is broad in nature and as such could be run in conjunction interactive media production units. It links well with *Unit 18*: *Film and Video Editing Techniques*, *Unit 121*: *3D Animation* and *Unit 119*: *Drawing Concept Art for Computer Games*.

There are opportunities to relate work done for this unit to Skillset National Occupational Standards in Editing, Photo Imaging and Photo Processing, and Design for the Moving Image as follows:

Editing

E1 Identify and agree editing outcomes and process

E5 Digitise pictures and sound for nonlinear editing

E10 Edit materials using nonlinear equipment

E21 Realise complex effects

Photo Imaging and Photo Processing

D1 Create original artwork for digital images

D2 Carry out specified image scanning

D3 Plan and produce scanned images

D4 Carry out specified image editing

D5 Plan and produce edited images

Design for the Moving Image

DMI40 Transfer images to the animation medium

DMI43 Design, storyboard and layout animation

DMI44 Digitise materials for animation production

DMI45 Produce animated images

DMI46 Produce cut out animation.

Work done for this unit might also be linked to E-skills National Occupational Standards in IT Users as follows:

- Specialist or bespoke software.

Essential resources

Hardware and software should reflect industrial standards where appropriate. It should include animation production and editing facilities, a rostrum camera and studio facilities for filming.

Learners will need access to rostrum camera, animation table and lighting, as well as camera equipment capable of frame capture and remote shutter control. Many DV cameras come with animation modes and whilst some of these are less than frame accurate, their use can be combined with existing video editing applications. A wide range of animation software is available from domestic to industrial. Of these, Toonboom may be of interest to centres. Some software companies offer frame capture applications whilst the potential of Flash, Photoshop and After Effects for animation is well documented.

This unit involves 2D animation produced by traditional or digital means or a combination of both. Space for learners to draw and cut may be required for the production of collages, cells or backgrounds.

Library resources providing DVD resources, as well as relevant and current information on animation, filming techniques and digital animation and contemporary film makers will be needed.

Centres are recommended to develop their own list of web links and multimedia research material.

Indicative reading for learners

Books

Beck J — *Outlaw Animation: Cutting-edge Cartoons from the Spike and Mike Festivals* (Harry N Abrams, 2003)

Culhane S — *Animation: From Script to Screen* (Columbus Books, 1989)

Grant J — *Masters of Animation* (Watson Guptill Publications Inc, 2001)

Hart C — *How to Draw Animation: Learn the Art of Animation from Character Design to Story Boards and Layouts* (Watson Guptill Publications Inc, 1997)

Hartas L — *How to Draw and Sell Digital Cartoons* (ILEX, 2004)

Noake R — *Animation: A Guide to Animated Film Techniques* (McDonald and Co, 1988)

Taylor R — *Encyclopaedia of Animation Techniques* (Focal Press, 2002)

Wells P — *Understanding Animation* (Routledge, 1998)

White T — *The Animator's Workbook* (Watson Guptill Publications Inc, 1988)

Wiedemann J — *Animation Now!* (Taschen, 2004)

Williams R — *The Animator's Survival Kit* (Faber & Faber, 2002)

Websites

www.cartoon-factory.com/jones.html	animation art gallery
www.toonboom.com/products	animation software

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.

Application of number Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• planning a production in relation to frames, shot length, running time • controlling production timing alongside issues of production management and, if digital, memory, compression and rendering time • presenting production management plan and the decisions and revisions linked to monitoring the plan.	N3.1 Plan an activity and get relevant information from relevant sources. N3.2 Use this information to carry out multi-stage calculations to do with: a amounts or sizes b scales or proportion c handling statistics d using formulae. N3.3 Interpret the results of their calculations, present their findings and justify their methods.

Communication Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• discussing the formats, techniques used and role played by animation	C3.1a Take part in a group discussion.
• presenting a report around audience responses to an animation they have produced	C3.1b Make a formal presentation of at least eight minutes using an image or other support material.
• exploring the context to the work of animators both current and historical	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.
• a reporting on the techniques and styles used in animation or in relation to the methods used b reporting on the findings around audience response.	C3.3 Write **two** different types of documents, each one giving different information about complex subjects. One document must be at least 1000 words long.
Information and communication technology Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• researching animators and information about their work and techniques; research and identification of on line animation exhibition sites	ICT3.1 Search for information, using different sources, and multiple search criteria in at least one case.
• producing a report around animation techniques and styles	ICT3.2 Enter and develop the information and derive new information.
• presenting audience response information and an evaluation of those responses.	ICT3.3 Present combined information such as text with image, text with number, image with number.

Improving own learning and performance Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• managing production of animation piece	LP3.1 Set targets using information from appropriate people and plan how these will be met.
• evaluation of production management plans in relation to actual outcomes	LP3.2 Take responsibility for their learning, using their plan to help meet targets and improve their performance.
• evaluating production, and identifying skills used, acquired and needed.	LP3.3 Review progress and establish evidence of their achievements.
Problem solving Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• identifying the constraints around facilities, skills, time and budget to inform production design	PS3.1 Explore a problem and identify different ways of tackling it.
• adjusting production plan to enable successful completion	PS3.2 Plan and implement at least one way of solving the problem.
• evaluating final production alongside audience responses and reflecting on strategies used.	PS3.3 Check if the problem has been solved and review their approach to problem solving.
Working with others Level 3	
When learners are:	**They should be able to develop the following key skills evidence:**
• agreeing a plan and allocating roles in a group production	WO3.1 Plan work with others.
• meeting at key moments to ensure co-ordination through agreeing next steps	WO3.2 Seek to develop co-operation and check progress towards their agreed objectives.
• evaluating effectiveness of group work and identifying desired modifications for future productions.	WO3.3 Review work with others and agree ways of improving collaborative work in future.