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Introduction

'The Cross-Curricular Skills of Communication, Using Mathematics and Using Information and Communications Technology (UICT) are the bedrock skills through which young people access knowledge. The revised terminology signifies a number of shifts in emphasis, for example, away from perceiving these as 'subjects' taught discretely (within English, Mathematics and ICT) towards skills that are developed across the curriculum and are therefore the responsibility of all teachers.' *The Statutory Curriculum at Key Stage 3: Rationale and Detail (CCEA 2007, page 11)*

All teachers are accountable, through the Learning Outcomes in their own subject, for contributing to the acquisition and development of skills in Using ICT (UICT). Pupils' work from a range of subjects forms part of the assessment process.

We wrote this document to identify the rich opportunities that occur naturally in a range of Learning for Life and Work resources. You can adapt these opportunities further to provide suggestions for pupils to acquire and develop their skills in UICT. We also aim to provide guidance on the tools and information pupils need to optimise skills development.

The stimuli for the suggestions in this resource come from the following Key Stage 3 curriculum resources:

- *Insync* (Personal Development);
- *Local and Global Citizenship* Folder;
- *The Wow Factor* (Education for Employability);
- *Teen Building* (Home Economics);
- *Zest* (Home Economics); and
- *STEM Futures – Cheese Sensation* (Home Economics).

To promote the cycle of effective learning and teaching, each suggestion in this resource follows the stages of plan, do and review. We also provide suggestions for audience and purpose (real or imaginary) to offer relevant and motivating contexts for learning.

If you follow any of these activities, pupils and teachers should have the software skills and an understanding of the process sufficient to undertake a suitable assessment task. You could easily adapt all of the suggestions in this resource, if your school considers this appropriate, for the purpose of assessment tasks. These could form part of your school's submission for moderation for UICT.

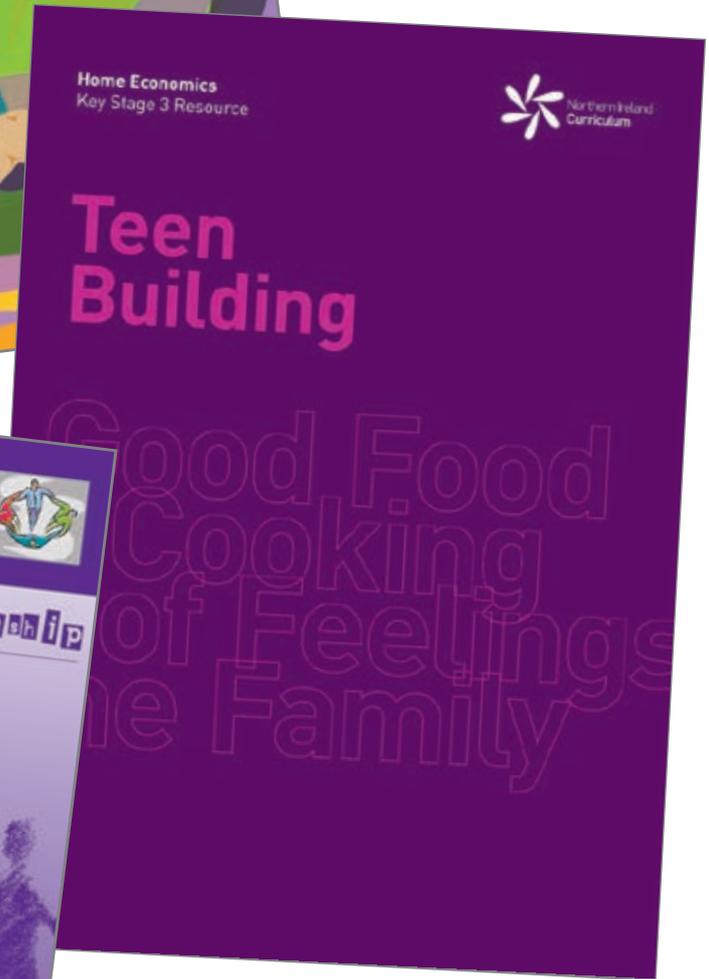
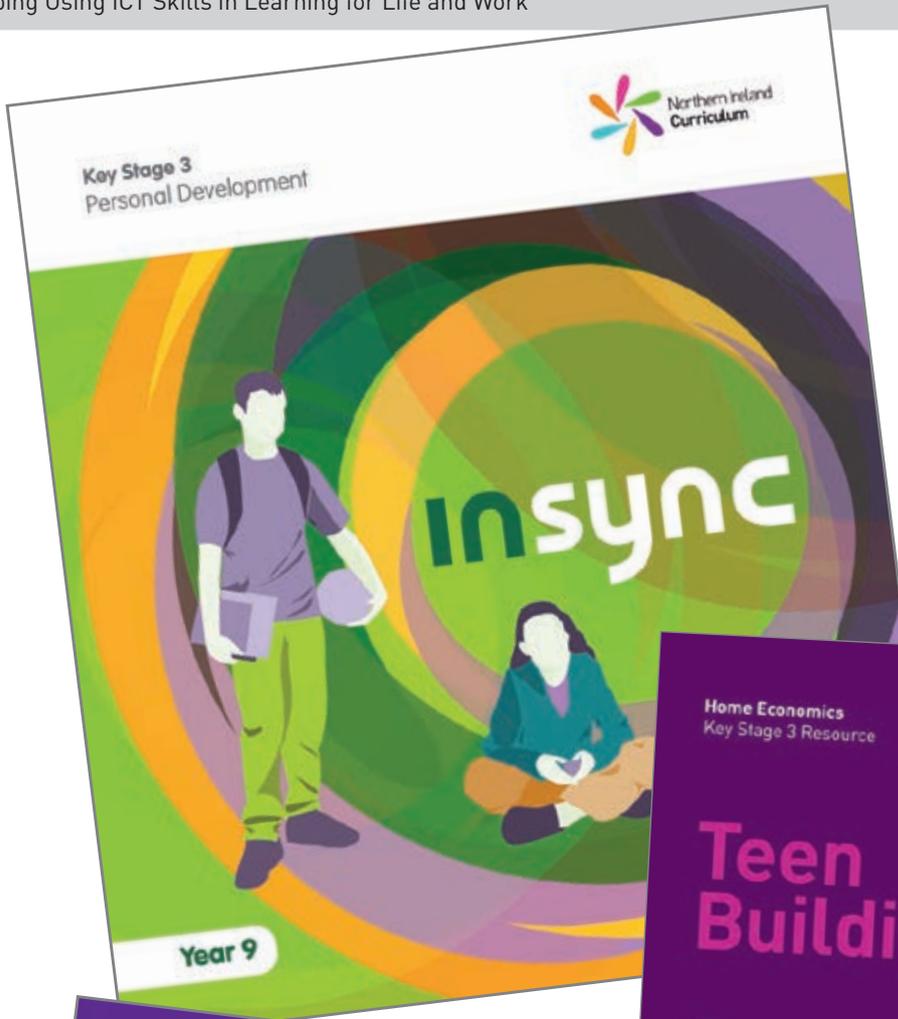
The Importance of e-Safety

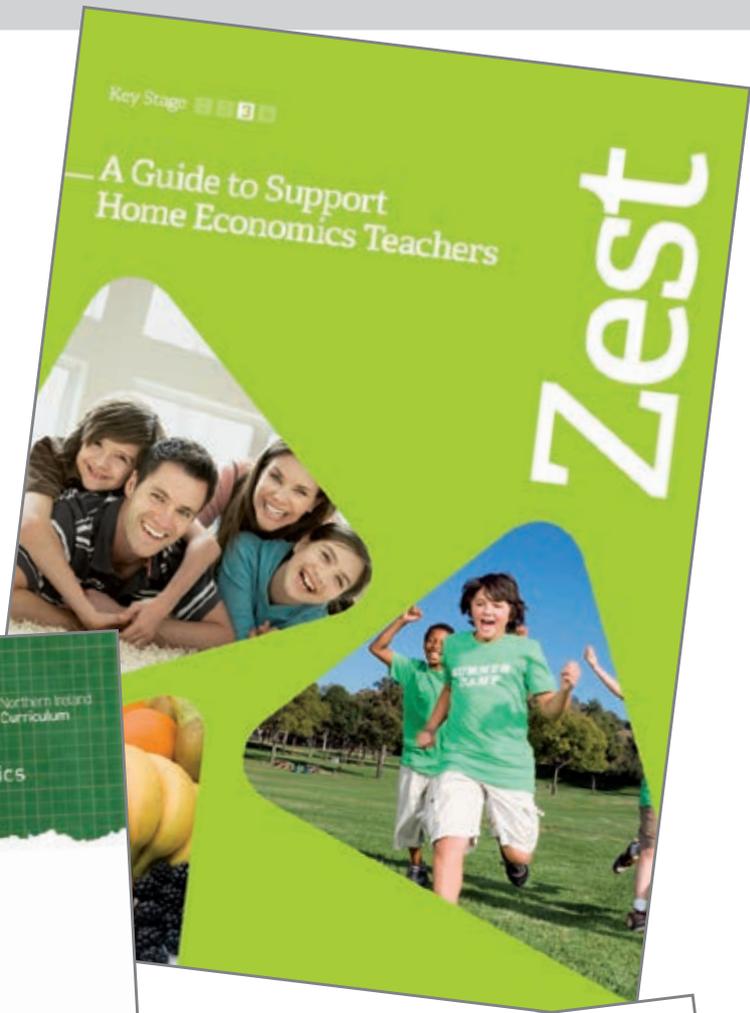
We have suggested a number of activities relating to working in an online environment. All pupils should know, understand and demonstrate e-Safety, including acceptable online behaviour.

Useful Website Suggestions

The links suggested throughout this resource were active at the time of publishing.

CCEA accepts no responsibility or liability for any material supplied by or contained in any of the suggested websites and does not necessarily endorse the views expressed within them. We cannot guarantee that these links will work all the time and we have no control over availability of the linked pages.





STEM FUTURES   Northern Ireland Curriculum

Learning for Life and Work through Home Economics
Key Stage 3

Cheese Sensation

Overview
Pupils explore diet and health issues as they take part in a scenario-based challenge. They also develop knowledge, understanding and skills in the areas of nutrition, health guidelines, labelling regulations, advertising and marketing.

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 **Health and Safety Warning**

CCEA has assessed the health and safety risks associated with these activities. However, we strongly recommend that all staff leading these activities carry out their own health and safety assessment, taking into account the ability of the students, the school's resources and its quality of equipment, etc.

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 Northern Ireland Curriculum

 10 years of employability

the WOW factor

Unit One Reap the Awards



Year 8

Developing **Using ICT** in Learning for Life and Work



Contributory Strand:

Local and Global Citizenship

Universal Declaration of Human Rights

Resource Overview

Local and Global Citizenship: Unit 3 Human Rights and Social Responsibility

Activity 3.3 What Promises Has My Country Made?

Pupils consider the United Nations Conventions on the Rights of the Child (UNCRC). This is the way countries show their children and young people the promises they have made to them.

Pupils select one of the human rights listed in the Universal Declaration of Human Rights (UDHR) that they think is the most important promise for their country to keep. They produce a leaflet based on the statement.

Context for Developing ICT Skills

Pupils develop their skills in **Desktop Publishing**.

Purpose: to produce a leaflet to illustrate the importance of a selected human right.

Audience: the leaflet will be available in the local library as part of a display on children's rights.

Suggested Hardware and/or Software

- Microsoft Publisher (C2k)
- Microsoft Word

Useful Websites

- United Nations Convention on the Rights of the Child
www.unicef.org/crc/
- Amnesty
www.amnesty.org.uk
- Northern Ireland Commissioner for Children and Young People
www.niccy.org

Plan

- Gather a selection of appropriate leaflets that campaign for changes in a law or remind citizens about laws.
- Divide the class into pairs and distribute a selection of leaflets to each pair.
- Encourage the class to consider elements of the leaflets, such as text, colours and images, and how they convey the message that the public needs to know.
- Discuss the layout of the leaflets with the class, considering aspects such as columns, titles, photos and slogans. Allow the class to consider how the size of some photos makes them seem more important. Discuss the shapes used for the photos, for example an image 'extracted' (cut out, with no background), or circles or rounded rectangles used to crop a picture. What will have a visual impact?
- Encourage the class to consider which information, if any, to present in a simple table, graph or graphical dashboard (information presented so that it is easy to read, like a car's dashboard). How can the main information be summarised to be clear for the target audience?
- As a class, agree success criteria for the leaflets.
- Allow each pupil to select a children's right they wish to campaign for.
- Encourage pupils to consider the leaflet's target audience.
- Encourage pupils to set up a Word document to keep a record of the decisions they make during the process of creating their leaflet. This could form some of the pupils' evaluation evidence.

Do

- Allow pupils to research the children's right they have chosen from the UNCRC, using the internet and other electronic sources. Invite them to try to find out if the right they have chosen is abused or neglected anywhere. For example Article 6 of the UNCRC:
Children have the right to live. Governments should ensure that children survive and develop healthily.
Pupils could consider where this human right may not be upheld.
- Encourage pupils to keep a brief account of the sites they visit in a project log/diary. They should record their reasons for using information from some sites and not from others. Ask them to consider the reliability and objectivity of the information they find.
- Ask pupils to create a topic folder to save their files in during the production of their leaflet.
- Remind pupils to write about why the children's right they chose is significant. Ask them to write about why they think campaigning for it is important. They can do this in their project log. Each pupil should think about the message they want to convey to the target audience, remembering to pay close attention to spelling, punctuation and grammar. Remind pupils to give this file an appropriate filename.
- Ask pupils to consider creating a suitable campaign slogan for their leaflet.
- If appropriate, encourage pupils to source copyright-free images and import them into their leaflet.
- Remind pupils to:
 - use a suitable desktop publishing program;
 - copy and paste text into text boxes and format them;
 - link text boxes to allow for text flow;
 - position the text boxes, graphs and images appropriately; and
 - use text wrapping, columns and page numbers.
- Ask pupils to save their own leaflet in a suitable location, using an appropriate filename.

Review

- Encourage pupils to take note of improvements they make throughout the process of creating their leaflet.
- Allow pupils to use the success criteria to carry out peer assessment on each other's leaflets, highlighting strengths and making suggestions on how they could be improved to meet the needs of the target audience.
- Give pupils time to make further improvements, based on the comments they received in the peer assessment. They should save the new draft with a different, but suitable, filename.
- Remind pupils to reflect on the process, giving reasons for their choices and decisions. Encourage them to include any difficulties they encountered and how they overcame them.
- Ask pupils what they would do differently, if they had to complete a similar activity in future. Ask them to note their responses in their log.



Alternative Activity: Working with Images

You could amend this activity by getting your pupils to create artwork to highlight the importance of a particular human right. They could incorporate this into their leaflets or have it as a standalone poster. This encourages connected learning across Art and Design and Citizenship.

Pupils develop their skills in **Working with Images**.

Purpose: to produce a poster to illustrate the importance of a selected human right.

Audience: the poster will be included as part of a display on children's rights in the local library.

Suggested Hardware and/or Software

- Photoshop

Plan

- Discuss the selection of leaflets with pupils. Focus on the images used. Ask them to consider the message each picture conveys and what will appeal to the target audience.
- Ask pupils to sketch their ideas for images that will grab their audience's attention.
- Remind pupils of the need to keep a record of their decisions throughout the process of creating their image.
- Encourage pupils to consider the resolution of the images they use for a printed document. (Printed documents require a high resolution so that the image does not appear pixelated or 'blocky'.)

Do

- Encourage pupils to use found images (photos, scans, clip art, stock images) or to create their own, using appropriate image manipulation software. They should save their images in a topic file with the other files for this activity.
- When creating the image, pupils should keep in mind the target audience as they consider:
 - the size and style of fonts;
 - the size and cropping of images;
 - appropriate colours for the text and images;
 - how to grab the attention of the target audience; and
 - the range of tools available in the software package.
- Ask pupils to make a note in their log of the images they use and where they obtained them. They should include some images they rejected and the reasons for their choices.
- Remind pupils to save their files with appropriate filenames.

Review

- Bring the class together to share their images. Allow pupils to comment on each other's images. Give them time to make improvements and save a copy with amendments.
- Remind pupils to reflect on their journey, updating their log with their choices and decisions. Get them to evaluate their amendments and how they will appeal to their target audience. Ask pupils to comment on any difficulties they encountered and how they used the software features to overcome them.



Contributes to the following Statutory Requirements

Pupils should be enabled to:				
Explore <ul style="list-style-type: none"> • access, select, interpret and research information from safe and reliable sources; • investigate, make predictions and solve problems through interaction with digital tools. 	Express <ul style="list-style-type: none"> • create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products. 	Exchange	Evaluate <ul style="list-style-type: none"> • talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability. 	Exhibit



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 3, 4 and 5. If pupils use instructions provided by the teacher, then this will usually limit the activity to Level 3.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Education for Employability

Explore Employment Opportunities in Media and Entertainment

Resource Overview

The WOW Factor – Unit 5: Theme 1, News Line

Pupils explore employment opportunities in the media and entertainment sector. They take part in the following employability challenge, by scripting and presenting a news bulletin.

Mainville Media have commissioned a special news feature about the issues that affect employment in the local area. The news feature will be broadcast on News Tonight.

Context for Developing UIC Skills

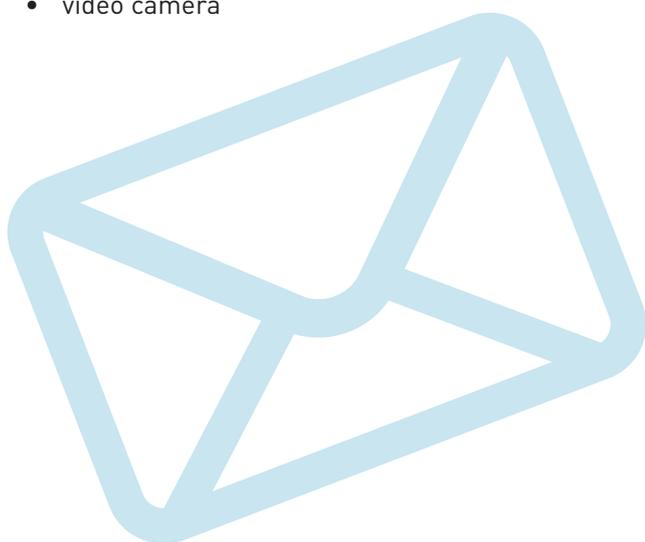
Pupils work in groups, developing their skills in **Working with Moving Images**.

Purpose: to produce a *News Tonight* bulletin about the potential employment opportunities in the local area.

Audience: the bulletin will be shown on a local television station and will target school leavers and young adults.

Suggested Hardware and/or Software

- Windows Movie Maker (C2k)
- iMovie (Mac or iPad)
- video camera



Plan

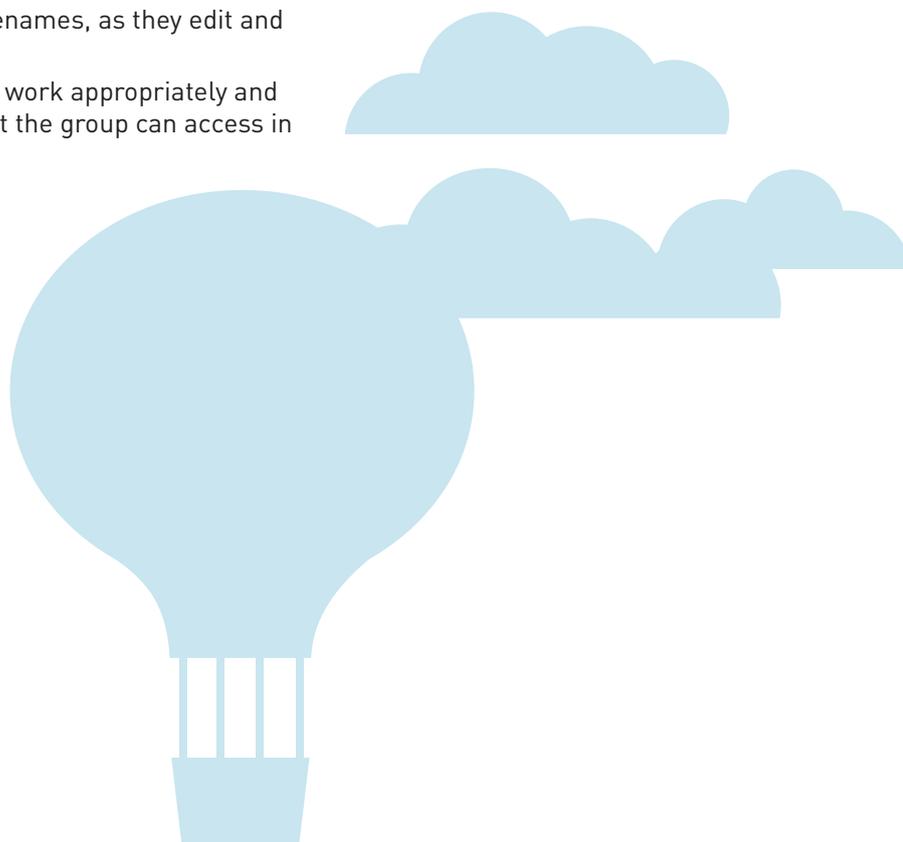
- Share a news report with the class and facilitate a discussion about the features used to tell the story, for example:
 - the different opinions offered;
 - the shots used to tell the story (a wide shot at the beginning of the report to set the scene, perhaps a tighter shot with reporter or interviewee in shot later on in the sequence);
 - the captions used (for example stating where the report is from, or who is being interviewed or reporting, the font used); and
 - the quality of sound – sometimes footage and ambient sound have a ‘voice-over’ added later in the studio.
- Invite groups of three or four pupils to research news reports online, select one and evaluate the features it uses.
- Allow time for them to discuss their findings with their peers.
- Ask each group to plan and storyboard (drawing pictures to show each shot they must film) their news bulletin. Encourage the groups to match parts of the report with each planned shot.
- Remind the groups to consider the target audience they are making the film for.
- Highlight to the class the importance of the time available for the whole shoot and the need to have the news report ready on time.
- Right from the planning stage, encourage the groups to consider the required duration of each shot to ensure they have enough footage for their bulletin.
- Encourage pupils to keep a record of their changes and the difficulties they encountered while producing their film.

Do

- Give each group a digital video camera to capture the film clips they have planned on their storyboard. Allow them to edit their storyboard if they decide to adapt their production.
- Pupils should have access to the internet to allow them to find moving images to complement their finished product. Remind them to consider issues such as copyright.
- Remind each group to upload their shot or found footage into the video editing software.
- Keeping audience and purpose in mind, encourage pupils to assemble and edit their sequences of clips in a working edit. Ask them to consider:
 - timing shots to a voice-over;
 - suitability of transitions (mixes between shots);
 - use and choice of font for the captions; and
 - credits.
- Remind pupils to save each version of their work, using suitable filenames, as they edit and refine it.
- Ask pupils to save their work appropriately and store it in a location that the group can access in future.

Review

- Allow the groups to carry out peer assessment on each other's productions, assessing the suitability of the finished product for the target audience and purpose.
- Remind each group to evaluate the process, reflecting on and linking their choices and decisions to the target audience. They should comment on any difficulties they encountered and how they used the software to overcome them. Suggest they use video excerpts to do this.
- Give pupils time to make improvements based on the peer feedback. Ask your pupils what they might do differently if they were to carry out a similar activity in the future.



Contributes to the following Statutory Requirements

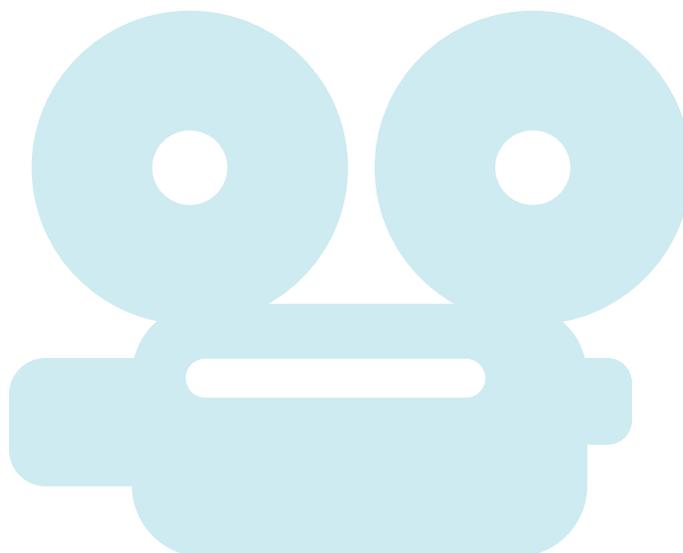
Pupils should be enabled to:				
Explore <ul style="list-style-type: none">• access, select, interpret and research information from safe and reliable sources;• investigate, make predictions and solve problems through interaction with digital tools.	Express <ul style="list-style-type: none">• create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products.	Exchange	Evaluate <ul style="list-style-type: none">• talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability.	Exhibit



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 3, 4 and 5. If pupils use instructions provided by the teacher, then this will usually limit the activity to Level 3.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Home Economics

Feed the Family

Resource Overview

Teen Building – Theme 4: Feed the Family

Pupils choose a suitable recipe for a given situation. They consider a variety of recipes and assess the pros and cons of each one, selecting the one most suitable for the situation, for example a sixth birthday party or an end of term get together.

Each pupil researches one recipe that they feel addresses all of the identified issues for their task. They then share the recipe they have chosen and briefly explain their choice.

Context for Developing UICT Skills

Pupils develop their skills in **Presentation**. They produce a presentation using suitable software, describing their choice of recipe for the situation, and show it to their peers.

Purpose: to produce a presentation to explain their reasons for their choice of recipe.

Audience: one of the family scenarios in *Teen Building – identify the audience:*

- 18th birthday barbecue; or
- outdoor picnic for teenagers at a concert.

Suggested Hardware and/or Software

- Prezi (<http://prezi.com>)
- Powerpoint
- Keynote (iPad or Mac)

Plan

- Show your pupils examples of presentations using different presentation software.
- Ask pupils to make a list, comparing and contrasting the features of the different types of presentation software.

Features that are similar between different presentation packages may include:

- using different types of assets (text, pictures, sound, video etc.).

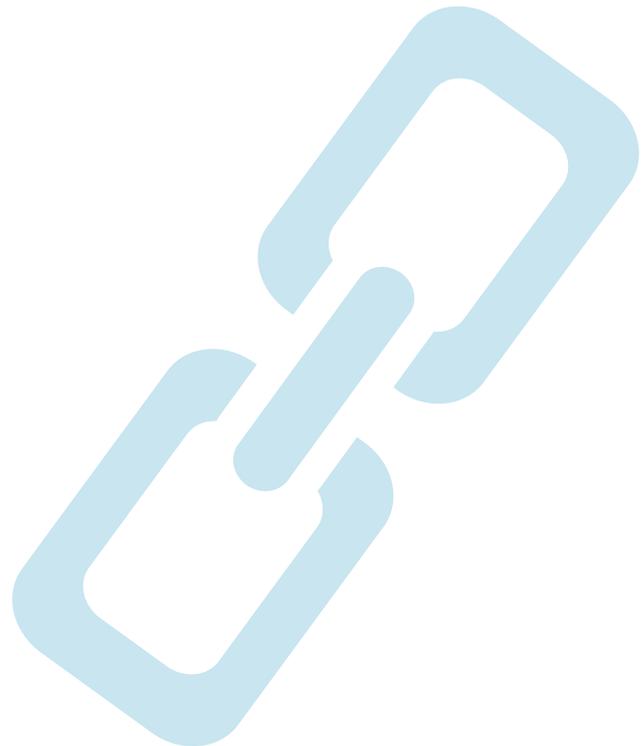
- Explain to pupils that they are going to create their own presentation. Discuss what will be required by the target audience to make it an effective presentation. These might include:
 - using animation or zoom facilities;
 - using paths;
 - drawing shapes;
 - importing pictures, video or sound; or
 - layering text and objects.
- Ask pupils to choose a situation or an occasion to research.
- Ask the class to suggest recipe ideas that may be suitable for the occasion or situation that they have selected.
- Ask pupils to conduct research, using the internet and other electronic sources, to find suitable recipes for the occasion or situation they have chosen.
- Encourage pupils to create a Word document to record decisions they make throughout the process of creating their presentation. For example, they should note the addresses of the websites they visit and include their reasons for visiting them.
- Give pupils time to work out the practicalities of their recipes, and to discover any interesting facts about them. They should select one recipe that they think will be most appropriate for their target audience.
- Remind pupils to make a topic folder and sub-folders for all the files and versions of work they create during this activity.
- Remind pupils to always consider the target audience for their presentation.

Do

- Allow pupils to consider the text, images and any sound or video files they might use in their presentation. They should also consider the sequence in which they want to show these files. Encourage them to develop a storyboard to help to organise their ideas.
- Encourage pupils to consider using photographs in their presentation. If they have made the food, they could photograph it. Alternatively, they could search for websites with suitable photographs of their chosen food, making a note of the URLs. They should edit the images with their target audience in mind. Encourage pupils to use copyright-free assets.
- Remind pupils to save images using appropriate filenames.
- Ask pupils to consider the font colour and size and the images they want to use in their presentation. They should consider including hyperlinks (links to website addresses or other pages) in their presentation, if appropriate for the target audience.
- Remind the class of the following features of presentation software:
 - the ability to position text in any direction, as you can rotate text easily;
 - the use of animation, so the presentation flows from one item to the next; and
 - the use of different sizes of text, as you can use text size to indicate its importance.
- Allow enough time for pupils to create the presentation and run it to ensure that it works as planned.

Review

- Divide the class into groups and use the Carousel method to ask them to view each other's presentations and to consider the suitability of the following for the target audience and purpose:
 - the suitability of the images;
 - the suitability of the text, both content and formatting; and
 - the use of animations, timing and/or transitions.
- Ask pupils to record any difficulties they encountered in creating the presentation and how they overcame them. Encourage them to explain what they might do differently if asked to carry out a similar activity in the future.
- The other group members may suggest improvements, based on the agreed success criteria, for the presentation. Allow time for pupils to implement some of the suggested improvements.



Contributes to the following Statutory Requirements

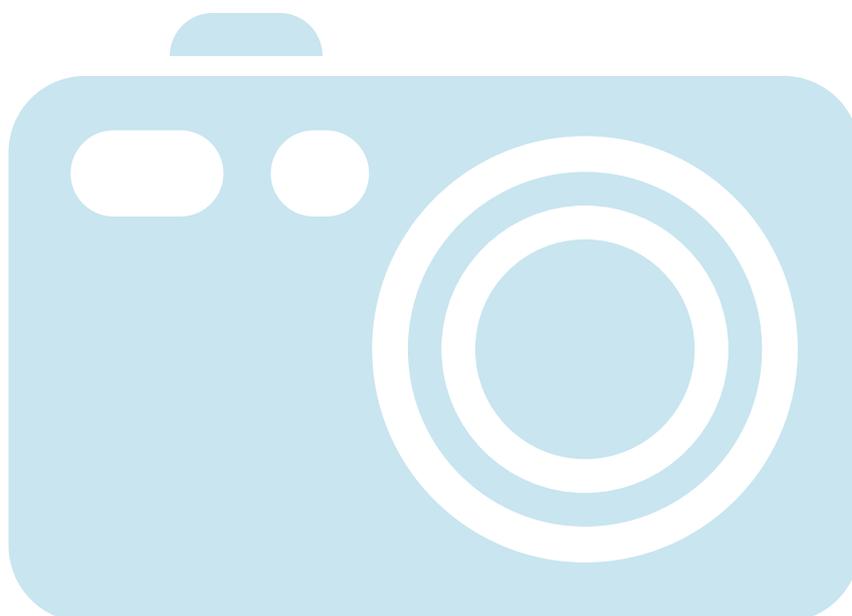
Pupils should be enabled to:				
Explore <ul style="list-style-type: none"> access, select, interpret and research information from safe and reliable sources; investigate, make predictions and solve problems through interaction with digital tools. 	Express <ul style="list-style-type: none"> create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products. 	Exchange	Evaluate <ul style="list-style-type: none"> talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability. 	Exhibit



Assessment Opportunity

You could develop this UICT activity into an assessment task and adapt it to target a range of levels, for example Levels 3, 4 and 5.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Personal Development

Drugs Awareness

Resource Overview

**Insync – Unit 10 Drugs Awareness:
Teaching Activity 3, Who Influences Me?**

Pupils learn to identify how role models including family, friends and media influence them.

Context for Developing UICT Skills

Pupils work in small groups to develop their skills in **Online Collaboration**.

Purpose: to discuss role models and their influence on the lives of young people. Each group will research and discuss:

- what a role model is;
- the qualities of a good role model;
- the benefits of having good role models; and
- the problems of identifying with poor role models.

Audience: each group will come to a consensus following their discussion and will present a report for an audience of young teenagers on the importance of good role models.

Note:

Pupils could use this activity to help to develop their communication skills.

Suggested Hardware and/or Software

- Fronter discussion forum
- Edmodo (www.edmodo.com)
- Moodle

Plan

- Discuss with the class how an online forum could be used to discuss an issue. Show the class an example of a forum where users have posted issues and others have responded, asking their own questions to continue the discussion.
- Ask each pupil to work independently.
- With the pupils, discuss the advantages and disadvantages of using online, as opposed to face-to-face, discussion.
Advantages may include:
 - talking to people in your own time and at anytime;
 - ability to see what everyone in the discussion is saying; or
 - time to consider your response before posting.Disadvantages may include:
 - difficulty in gauging people's emotions (are they angry or sarcastic?);
 - not knowing who you are talking to; or
 - users straying from the topic.
- Encourage the class to consider what users need to do to have a successful online discussion. Ask them to write down their ideas. You can use these as success criteria for the online discussion. Examples may include:
 - being polite and observing netiquette;
 - making timely responses;
 - keeping focused on the issue being discussed;
 - initiating new threads in the forum;
 - using hyperlinks to suitable websites and adding attachments that contain materials to help consider the issue;
 - posting open questions; and
 - demonstrating the skills of writing for discussion such as summarising your arguments and giving examples, including connectives and rhetorical questions, and writing in the present tense.

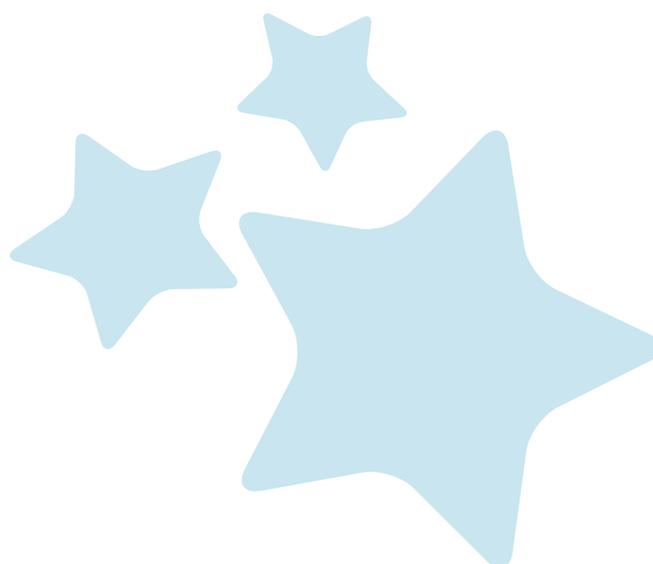
- Allow the class to consider how they participate in a discussion when writing/talking/listening. Examples may include:
 - making sure the topic is clear for all participants;
 - giving reasons and examples why you agree with the issue;
 - giving reasons and examples why you disagree with the issue;
 - considering others' responses and giving reasons why you agree or disagree with the points others raise;
 - asking open questions to keep the discussion moving;
 - avoiding short answers; and
 - making a considered decision about whether you agree or disagree with the issue.
- Explain to the class that they are going to take part in an online discussion. Ask your pupils to discuss whether having good role models helps pupils make positive life choices.
- Recap with pupils the qualities they agreed were necessary for participants in an online discussion forum. Tell them that these will be the success criteria for participating in the discussion.
- Set a date for the online discussion to close.

Do

- Encourage pupils to conduct research, using the internet, to find out about role models and their influence on young people.
- Ask each pupil to keep a brief record of the sites they visit and to give reasons why they use information from some websites and not others.
- Encourage pupils to log on to the discussion forum regularly to ensure their responses are timely including, where possible, logging on from home and/or outside class time.
- Remind pupils to articulate points and comments clearly, and to follow the rules of netiquette to promote quality online discussion.
- Encourage pupils to add attachments to support their views and opinions, as and when appropriate.

Review

- Discuss using a Virtual Learning Environment (VLE) as a way to exchange views and information.
- Allow pupils to carry out peer assessment on each other's postings, based on the agreed success criteria, and discuss their assessments as a class.



Contributes to the following Statutory Requirements

Pupils should be enabled to:				
Explore <ul style="list-style-type: none">access, select, interpret and research information from safe and reliable sources.	Express	Exchange <ul style="list-style-type: none">communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally.	Evaluate	Exhibit



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 3, 4 and 5.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Year 9

Developing **Using ICT** in Learning for Life and Work



Contributory Strand:

Local and Global Citizenship

Equality and Justice

Resource Overview

Local and Global Citizenship – Unit 5 Towards Equality: Teaching Activities 5.4–5.6

Pupils learn about people who experience inequality and discrimination.

They explore:

- the organisations in society that help people who are discriminated against; and
- how most governments have made promises to protect certain groups who experience inequality.

They consider examples of the promises that could be better kept.

Context for Developing UICT Skills

Pupils work in groups, developing their skills in **Online Collaboration**. They could also develop their **Presentation** skills using this activity.

Purpose: to collaborate online in the creation of a presentation, discussing ‘promises that could be better kept’.

Audience: the presentation is intended to influence local government representatives, for example MPs and MLAs.

Suggested Hardware and/or Software

- Google Apps
- Microsoft Office 365
- Fronter discussion forum

Plan

- Divide the class into groups.
- Discuss with pupils how users may participate in creating a document or presentation at the same time.
- Explain to pupils that they are going to contribute to a presentation. Instead of working on it individually they will collaborate online.

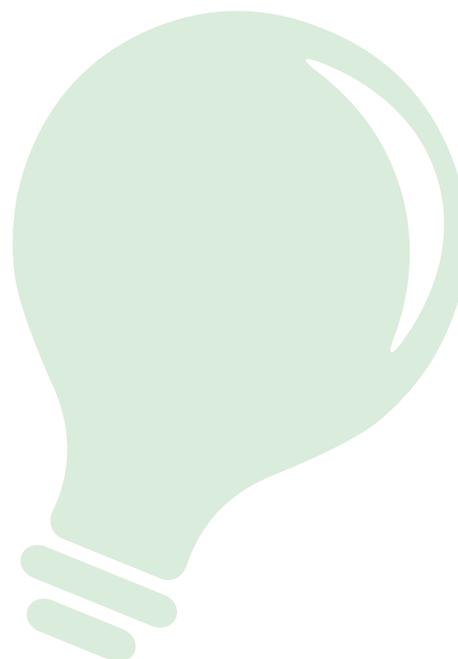
- Show pupils how they can use Google Apps, or equivalent software, to collaborate on a document. Ask the pupils to note some of the features shown in the demonstration, for example:
 - group members simultaneously editing the document; or
 - adding comments to evaluate/justify changes made.
- Emphasise the need for netiquette with pupils, for example:
 - respecting each other, even if we disagree with decisions made by others;
 - keeping messages to the point and on the topic; and
 - ensuring that you contribute regularly to the presentation and provide feedback on the contributions of others.
- Get pupils to document their changes through the use of comments. Emphasise that these comments must evaluate the changes made with reference to the audience and purpose.
- Ask pupils to research information on the promise they have chosen and to select relevant information for their presentation.
- Ask each member of the group to keep a note of their contribution, including ideas that other group members rejected or improved.

Do

- Encourage pupils to select an issue of inequality to research. Ask them to find out how much action governments take to ensure that they keep their promises.
- Ask pupils to select the information that they want to put into their presentation, as well as the colours, fonts and the number of slides they want to use.
- Ask the members of the group to work simultaneously online using a discussion forum, to discuss the issue and suggest how to complete the activity.
- Ensure that each pupil keeps an account of the sites they visit and briefly gives reasons in their record why they used information from some sites and not others.
- Ask the group to consider how to structure their presentation and what information or assets they should include that would be relevant for the target audience.
- Within each group, pupils should collaborate on creating and editing their presentation. Encourage pupils to log on to Google Apps regularly to ensure their contributions and comments are timely including, where possible, logging on and working from home and/or outside class time.

Review

- Ask pupils to share their presentation with members from other groups and, if possible, to test it before use with local government representatives.
- Allow pupils to carry out peer assessment of each other's presentations, providing feedback on how well it meets the needs of the audience and purpose.
- Allow pupils time to amend their presentations in the light of feedback from the members of other groups. Get pupils to record these amendments in their log.
- Encourage each group to note in their record any difficulties that they encountered in creating, uploading and managing their presentation and how they overcame them. Ask them to explain what they might do differently if they were asked to carry out a similar activity in the future.



Contributes to the following Statutory Requirements

Pupils should be enabled to:				
<p>Explore</p> <ul style="list-style-type: none"> • access, select, interpret and research information from safe and reliable sources; • investigate, make predictions and solve problems through interaction with digital tools. 	<p>Express</p> <ul style="list-style-type: none"> • create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products. 	<p>Exchange</p> <ul style="list-style-type: none"> • communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally. 	<p>Evaluate</p> <ul style="list-style-type: none"> • talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability. 	<p>Exhibit</p>



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4 and 5.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Education for Employability

Corporate and Social Responsibility

Resource Overview

The WOW Factor – Unit 4 Theme 6, The Big Appeal: Activity 1

Pupils imagine that the school is organising an appeal for a local village that has been badly damaged by severe flooding.

Context for Developing ICT Skills

Pupils work in groups, developing their skills in **Working with Sound**.

Purpose: to produce a radio appeal for broadcast on a local radio station.

Audience: the appeal will be designed to encourage business owners to sponsor a local charity or project to help the village recover from the flooding incident.

Suggested Hardware and/or Software

- Audacity (C2k)
- GarageBand (Mac)
- microphone

Plan

- Explain to the class that they will create a radio advertisement to appeal to local business people to help a local village that was badly affected by severe flooding.
- Encourage pupils to listen to examples of radio advertisements/appeals together. Note how they sometimes use a backing track, often with no lyrics, and place vocals (called a 'voice-over') on top.

- Divide the class into groups and use the Carousel method to ask them to listen to some adverts and to consider:
 - the type of music used in the background and why the makers might have chosen it;
 - the message the speaker was trying to get across; and
 - the tone and speed of the speaker.
- Arrange the pupils into groups of four or five.
- Allow each group to decide which type of business they want to target, using The Big Appeal Resource 3 in *The WOW Factor*. Encourage them to think of how that type of business may be able to help. Ask them to think about the damage the local village sustained.
- Assign roles within each group, for example:
 - a scriptwriter for the voice-over;
 - someone to research/create suitable audio for the broadcast;
 - a voice-over artist; and
 - an editor for the broadcast.
- Pupils in each group will decide whether the group will use pre-recorded sounds, considering copyright implications. Pupils may also consider how they might create their own sound files.
- Encourage pupils to set up a Word document/log to keep a record of and evaluate the decisions they make throughout the process of creating their radio appeal.

Note:

You can find useful examples of speech-based appeals at:

- DEC audio radio appeal; and
- BBC Radio 4 Appeal (iPlayer).

Do

- Allow pupils time to write a suitable script for their voice-over. Consider the information needed by the target audience.
- Remind pupils to:
 - use Audacity and a microphone to record the voice-over (they may need to try a few times before they record the best version); and
 - ensure the voice is clear and is not distorted by poor recording settings or background noise.

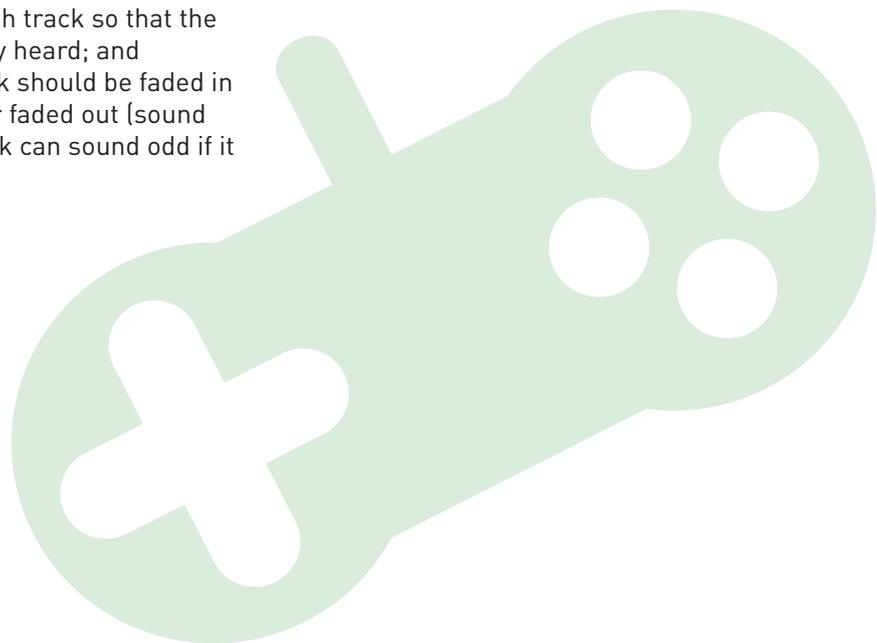
Note:

The sound waves recorded on the track should not be large enough to touch the top and bottom of the track as this usually indicates distortion.

- save draft and final versions of the voice-over choosing a suitable file format with appropriate filenames, to demonstrate how the file has been improved;
- import or record the background music/sounds on another track or tracks;
- split or move the tracks so that they begin at the same time as each other;
- adjust the volume in each track so that the voice-over can be clearly heard; and
- consider whether a track should be faded in (sound volume rising) or faded out (sound volume falling) as a track can sound odd if it finishes too abruptly.

Review

- Give pupils time to listen to their broadcast and to think about the decisions they should take to make sure the broadcast sounds professional.
- Allow pupils to carry out peer assessment of each other's radio appeal, highlighting strengths and ways in which the appeal could be made more effective for the intended audience and purpose.
- Encourage pupils to include in their log the difficulties that they encountered in creating the radio appeal and how they overcame them. They should also explain what they might do differently if asked to complete a similar activity in the future.
- Allow pupils time to make improvements to their work and note in their log why they made these changes and how they made the podcast more effective for the target audience.



Contributes to the following Statutory Requirements

Pupils should be enabled to:				
<p>Explore</p> <ul style="list-style-type: none"> access, select, interpret and research information from safe and reliable sources; investigate, make predictions and solve problems through interaction with digital tools. 	<p>Express</p> <ul style="list-style-type: none"> create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products. 	<p>Exchange</p>	<p>Evaluate</p> <ul style="list-style-type: none"> talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability. 	<p>Exhibit</p>



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4 and 5.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Home Economics

Dairy Delights

Resource Overview

STEMworks! website – Futures: Resources Home Economics – Cheese Sensation! Activity 5 Dairy Delights and Activity 6 Caught on Camera

Pupils explore the agri-food sector. They use the internet to source their own healthy cheese snack recipe ideas and share their recipe with the class.

Context for Developing UICT Skills

Pupils work individually, developing their skills in **Desktop Publishing**.

Purpose: to create a recipe card to share and promote cheese snack recipes as healthier alternatives to high fat diets.

Audience: the recipe cards will be aimed at busy parents and will be made available at local supermarkets.

Suggested Hardware and/or Software

- InDesign (C2k)
- Publisher (C2k)
- Photoshop (C2k)

Useful Website

- www.bbc.co.uk/blogs

Plan

- With your class, discuss and agree on ideas for healthy cheese snacks. Save the success criteria as an electronic document so that your pupils can refer to it.
- Ask the class to try to find composite dish recipes that contain cheese. Then ask them to adapt the recipes to make them healthier, using the Eatwell Plate (Cheese Sensation Resource 8) as a guide.
- Explain to the class that they will create a recipe card to inform busy parents on how they can create healthy cheese snack for their family. The recipe cards should be designed for presentation at a local supermarket.
- With pupils, look at examples of recipe cards from local supermarkets or online. Allow pupils time to discuss the layout and design of the cards.
- Allow pupils to search for suitable recipes. Encourage them to consider how to make the recipe healthier.
- Ask pupils to consider the target audience for their recipe card. How will they make the card attractive/eye-catching? What pictures and information do they need to include to make the products appeal to busy parents?
- Get pupils to set up a Word document to keep a record of decisions they make, for example websites visited, choice of pictures and information to include. Encourage pupils to evaluate decisions made in relation to the intended audience and purpose.

Do

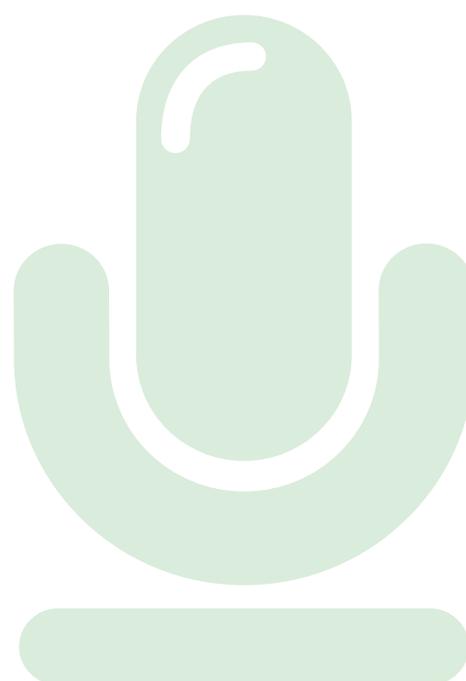
- Ask pupils to select one recipe that clearly meets the criteria for a healthy cheese snack. Ideally, if time and planning permit, pupils should be given the opportunity to create their chosen cheese snack.
- Ask each group to photograph their completed cheese snack. Alternatively, pupils can source high-quality images online. Ask pupils to evaluate how their chosen images suit the intended audience and purpose. This can be recorded in their project log.
- Ask pupils to create their recipe card. They could consider including some of the following:
 - appealing photographs of the completed snack;
 - a suitable background colour/design for the target audience;
 - detailed instructions on how to create the snack;
 - photographs of the main stages in creating the snack;
 - suggested accompaniments to the dish – they could try some of the accompaniments at home and take photographs and upload them;
 - web links to sources of other healthy recipes;
 - suggested modifications to the recipe such as alternative ingredients; and
 - adding a rating of how easy/difficult the recipe will be to make and how long it will take to make.

Review

- Divide the class into groups and use the Carousel method to ask them to view each other's recipe cards and consider the suitability of the following for the target audience and purpose:
 - the images;
 - the text, both content and formatting; and
 - the overall design and visual appeal.
- Allow pupils time to make improvements to their recipe cards and save a copy with the amendments.
- Ask pupils to reflect on the process, including the choices they made and how they used the software to overcome any difficulties.

Alternative Activity

This activity could be extended by asking pupils to create a short TV advert to promote their new range of recipe cards. Alternatively pupils could create an e-book for distribution through the supermarket website.



Contributes to the following Statutory Requirements

Pupils should be enabled to:				
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Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4 and 5.

The UICT Desirable Features provide guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Personal Development

Feelings and Emotions

Resource Overview

***Insync* – Unit 2 Feelings and Emotions:
Teaching Activity 3 How Do You Cope?**

Pupils revisit scenarios in Resource 3 Expressing Emotions. In groups, pupils prepare a role-play based on a scenario that displays a range of feelings, such as acceptance, dealing with anger or rejection.

Context for Developing UIC Skills

Pupils work in groups, developing their skills in **Animation**.

Purpose: to produce an animation to illustrate how people cope with their feelings.

Audience: the animation is aimed at teenagers.

Suggested Hardware and/or Software

- Windows Movie Maker (c2k)
- iMovie
- iStopMotion (Mac/iPad)
- digital camera
- tripod

Useful Websites

- www.nervecentre.org
- www.ammacentre.org (check out tutorial for animation in iMovie)

Plan

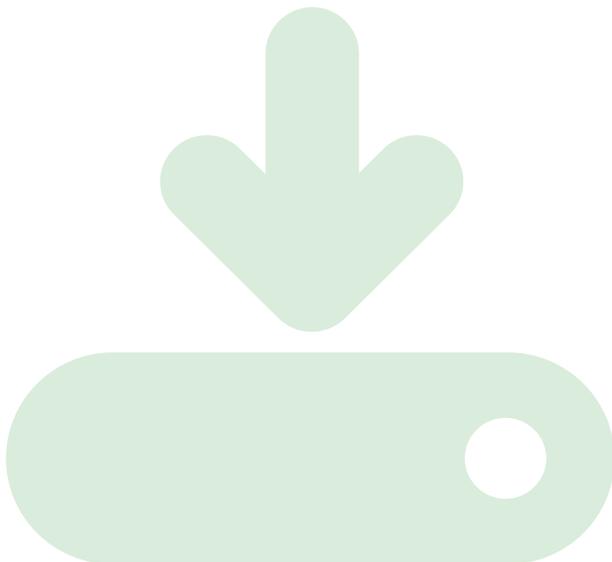
- Divide the class into groups of four or five pupils.
- Ask pupils to suggest ways that people show emotions, for example:
 - facial expression;
 - body language;
 - actions; or
 - tone of voice.
- Ask pupils to create an animation, demonstrating a range of feelings, to show how someone may express feelings of being in a situation that is difficult to cope with.
- Remind the groups to consider the audience for the animation.
- Allow each group time to choose one of the scenarios provided in the *Insync* resource (Resource 3, Activity 1).
- Ask each group to think about the feelings that they want to illustrate in their animation and to note them down.
- Provide time for each group to decide on the type of animation they will use, for example:
 - pixilation: pupils animate themselves in the film;
 - collage: pupils animate paper or fabric cut-out characters in the foreground with a flat drawing as the background;
 - object: pupils animate objects such as toy characters; or
 - claymation: pupils animate clay models, moving them frame by frame.

Note:

Claymation can be time consuming.



- Remind pupils to research their chosen scenario using the internet. Ask them to record and evaluate URLs and animations they find in their project log.
- Distribute a copy of the storyboard sheet and ask each group to note down the feelings, dialogue and images they are thinking of using. The group should consider the hardware and time available to complete their film.
- Give each group time to allocate roles in the group, for example:
 - animator;
 - camera operator;
 - sound recorder; and
 - editor (person importing images into the computer and editing).
- Encourage pupils to keep a record of any changes they make and difficulties they encountered when producing their film, including how they overcame them.
- Explain to the class that animations consist of individual pictures, or frames. To trick the human eye into thinking there is smooth motion, 24 frames are needed in each second of film. However, 8–12 frames in each second will give a reasonable motion without being too jerky.



Do

- Give each group a camera and tripod, and encourage them to make their footage as they planned on their storyboard. Ask pupils to edit their storyboard, if they decide to adapt their production.
- Ask each group to upload their footage into the animation editing software.
- Keeping the audience and purpose in mind, allow pupils time to assemble and edit their sequences of clips in a working edit. Encourage them to consider:
 - timing music or voice-over to the shots;
 - appropriate transitions (mixes between shots) and;
 - using tools in the software to adjust the frame rate of shots and to improve the rhythm.
- Remind pupils to save versions of their product, using suitable filenames, as they edit and refine.
- Encourage pupils to save their work appropriately and store it in a location that the group can access, for example Google Drive or MS OneDrive.

Review

- Allow the groups to carry out peer assessment on each other's productions, evaluating the suitability of the finished product for the target audience and purpose.
- Remind each group to evaluate the process, reflecting on and linking their choices and decisions to the target audience. They should comment on any difficulties they encountered and how they used the software to overcome them. Suggest they use video excerpts to do this.
- Give pupils time to make improvements based on the peer feedback. Ask your pupils what they might do differently if they were to carry out a similar activity in the future.

Contributes to the following Statutory Requirements

Pupils should be enabled to:				
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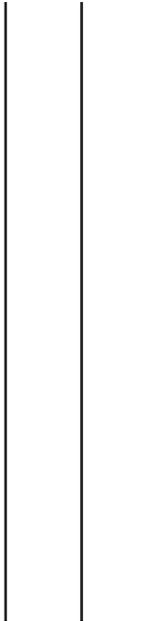
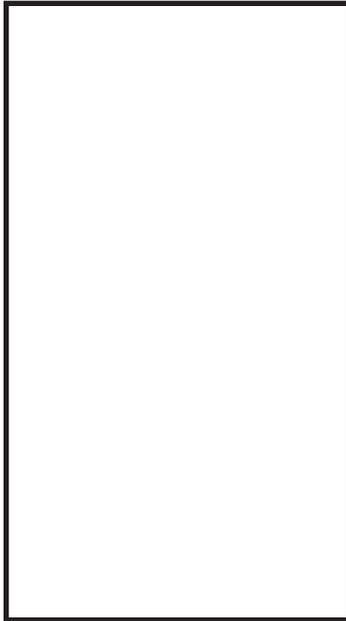
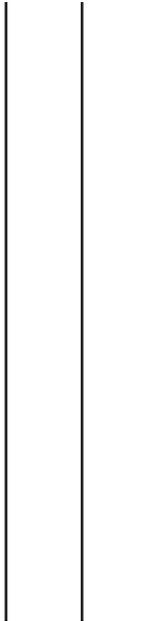
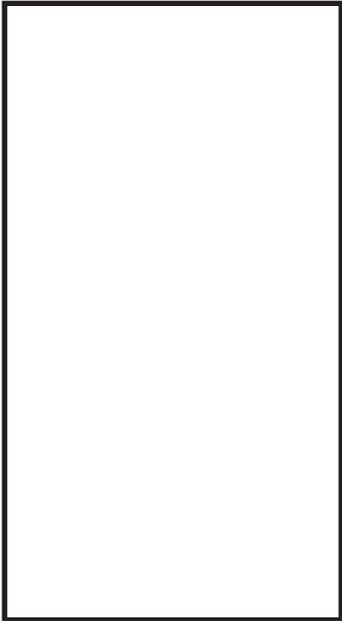
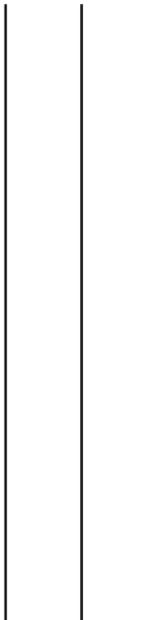
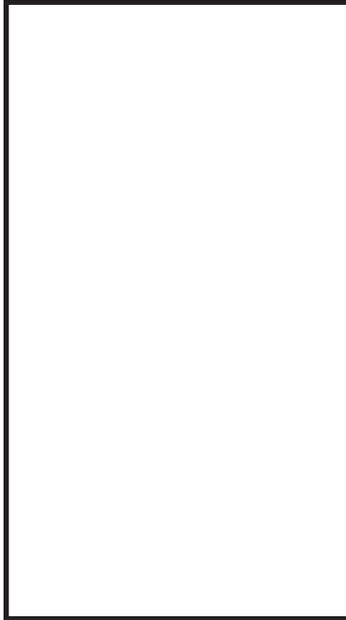
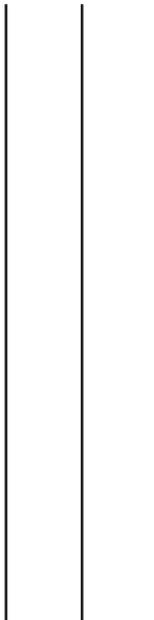
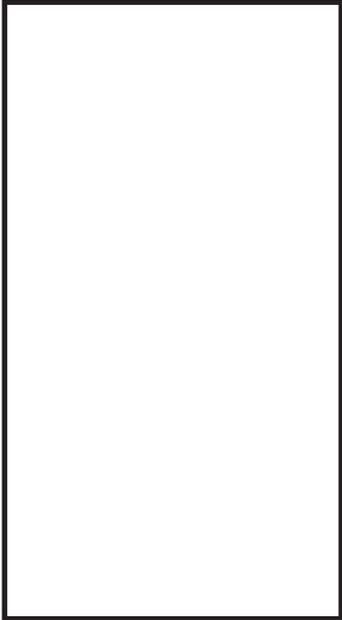
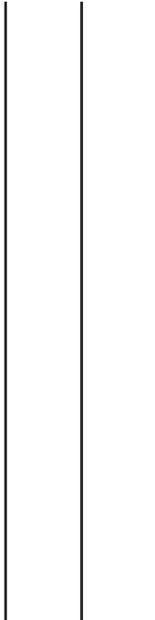
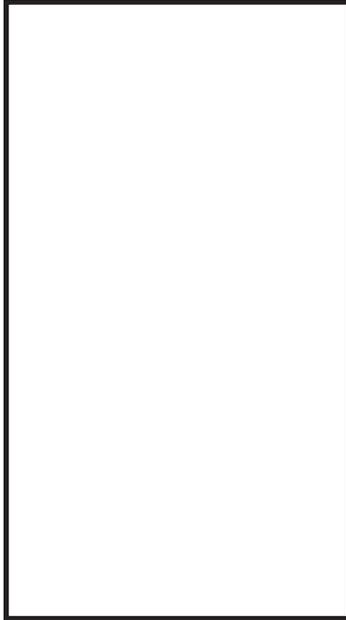
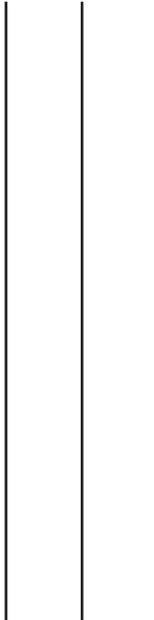
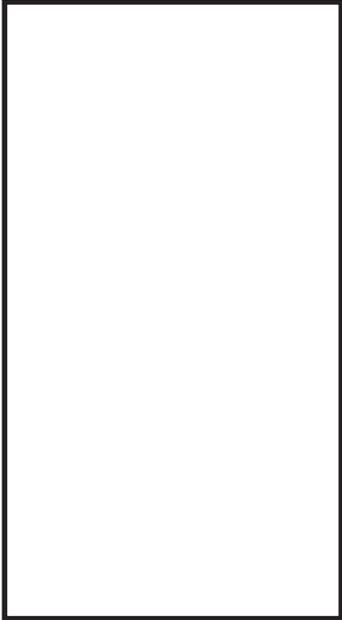
Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4 and 5.

The UICT Desirable Features provide guidance for creating success criteria to help develop this activity as an assessment task.



Storyboard Template



Year 10

Developing **Using ICT** in Learning for Life and Work



Contributory Strand:

Local and Global Citizenship

Equality

Resource Overview

Local and Global Citizenship – Unit 9 Why Do We Need Rules and Laws?

Activity 9.7 What's Wrong with these Laws?

Pupils consider laws that may be unfair or unjust. They explore the example of South Africa and the apartheid laws.

Context for Developing UICT Skills

Pupils work in groups, developing their skills in **Online Collaboration**.

Purpose: to produce a wiki about an individual (present day or in history) who has made significant contributions to the promotion of human rights.

Audience: the wikis will be produced for a human rights charity to publish on its website for a worldwide audience.

Suggested Hardware and/or Software

- Wikispaces (www.wikispaces.com/content/classroom)
- Pbworks (www.pbworks.com)
- Googledocs (www.docs.google.com)

Plan

- Explain to the class that a wiki is an online piece of work produced collaboratively by a community of users. Demonstrate a number of wikis online, for example:
 - Wikipedia;
 - WikiTravel; and
 - WikiHow.
- Ask the class to describe the features and benefits of a wiki, for example:
 - enables different people to write documents collaboratively;
 - collaboration is instant;
 - supports online research projects; and
 - work is automatically archived.
- Divide the class into groups of three or four pupils and ask each group to work collaboratively to produce a biography of a figure who has promoted human rights. Ask each group to produce the work in a wiki.
- Allow each group time to choose a figure who has promoted human rights, for example:
 - Nelson Mandela (anti-apartheid activist);
 - Mahatma Gandhi (role in Indian Freedom Struggle and advocate for non-violence);
 - Aung San Suu Kyi (leader of National League for Democracy, Burma, Nobel Peace Prize Winner 1991);
 - Betty Williams (President of the World Centers of Compassion for Children and founder of the Community for Peace People);
 - Martin Luther King Junior (Civil Rights for black people); or
 - a volunteer in the local area, for example volunteers for charities such as the NSPCC.



- Discuss with the class the different types of information that they might upload onto their wiki:
 - text;
 - sound;
 - images;
 - video; or
 - data.
- Remind the groups that each member should log on separately, so that changes can be tracked and comments monitored. Encourage each member to log on regularly.
- Remind pupils to conduct their research using the internet and to share the URLs of sites they think are useful.
- Encourage pupils to keep a record of changes and difficulties they encountered, and how they overcame them, as they develop their wiki.
- Ensure that pupils have delegated roles and planned the different sections of their wiki before they begin to create it.

Do

- Allow each group to collaborate on their wiki, including different elements that will make their page look attractive to the intended audience.
- Encourage each member of the group to contribute regularly, clarifying their role in the construction of the page and posting any questions concerning their project.
- Ask each member of the group to share material and resources they have found with the others, so that they can rate it for usefulness and reliability.

Review

- Encourage the groups to carry out peer assessment on each other's wikis, suggesting improvements for the design and features of the page.
- Allow pupils time to make improvements to their contributions, based on the feedback from peers.
- Ask pupils to document their choices and decisions in a project log, evaluating any contributions or improvements they have made.
- Ask pupils to discuss what they might do differently, if they were to carry out a similar activity in the future. Encourage them to discuss the pros and cons of using the wiki as a collaborative tool, for example:

Pros	Cons
Easy to use and instant	Online so vulnerable to hackers – not suitable for confidential material
Can work on it at home and in school	Anyone can edit a wiki – difficult to ensure the information is reliable
Keeps track of edits (version control)	Relies on teamwork – potential for some people to be left to carry out most of the authoring
Can be used for lots of purposes	If you lose your internet connection you cannot access your wiki

Contributes to the following Statutory Requirements

Pupils should be enabled to:				
Explore <ul style="list-style-type: none">• access, select, interpret and research information from safe and reliable sources;• investigate, make predictions and solve problems through interaction with digital tools.	Express <ul style="list-style-type: none">• create, develop, present and publish ideas and information responsibly using a range of digital media and manipulate a range of assets to produce multimedia products.	Exchange <ul style="list-style-type: none">• communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally.	Evaluate <ul style="list-style-type: none">• talk about, review and make improvements to work, reflecting on the process and outcome and consider the sources and resources used, including safety, reliability and acceptability.	Exhibit



Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4, 5 and 6.

The UICT Desirable Features provide guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Education for Employability

Health and Safety in the Workplace

Resource Overview

**The WOW Factor – Unit 4 Work Smart:
Theme 1 Be Safe Activity 2**

Pupils explore the importance of health and safety in school and in the workplace. They take part in an activity to think about how to improve health and safety in the workplace.

Context for Developing UICT Skills

Pupils work in pairs, developing their skills in **Exploring Programming**.

Purpose: to produce a program to demonstrate the importance of health and safety in a chosen workplace.

Audience: an employer will use the program as part of their induction training for new employees in the chosen industry.

Suggested Hardware and/or Software

- Scratch
- Matchware Mediator
- digital camera
- discussion board set up in Fronter or Moodle

Useful Websites

- www.hse.gov.uk
- www.hsa.ie/eng

Plan

- Divide the class into pairs.
- Assign each pair a type of business, for example:
 - a construction company;
 - a factory;
 - a landscaping business; or
 - a restaurant.
- Ask each pair to list possible health and safety issues in the workplace. Encourage them to search the internet and to make a note of the URLs of sites that they visited. Ask them to collate information they find about potential workplace dangers.
- Explain to the class that employees sometimes watch training videos or programmes that demonstrate why health and safety rules are in place and what those rules are for that workplace.
- Share with the class the HSE (UK) website and in particular the 'STEP elearning tool' package demonstration (www.hse.gov.uk/slips/step). Discuss the features of the package, for example:
 - quiz;
 - interactivity; and
 - demonstration of where health and safety issues arise.
- Discuss why the package is a suitable way to show employees the information they need about health and safety.



- Explain to the class that an employer must provide health and safety regulations in their workplace. Invite pairs of pupils to consider how an employer could present the guidance online in an interactive way by allowing users to, for example:
 - click on risks in a picture; or
 - respond to questions to check understanding.
- Brief the pairs about using appropriate software that allows you to make interactive games. Pupils may choose Scratch or a multimedia authoring package such as Mediator that uses scripting and event-driven programming concepts.
- Ask pupils to design an interactive game that helps employees to understand the risks in their industry and the correct action to take.
- Ask pupils to negotiate and agree on the success criteria for this task, for example:
 - using several sprites (pictures placed on the screen);
 - using backgrounds;
 - editing and animating sprites;
 - changing costumes (each sprite may have more than one frame – changing costume can give the illusion of a sprite moving);
 - changing looks (what each sprite or picture looks like);
 - adding sound;
 - using events to control program flow; or
 - using variables and operators (for example to score a quiz).
- Give each pair a copy of the storyboard sheet and ask them to plan which risks to health and safety in their workplace they will educate employees about. Examples may include:
 - noise;
 - moving goods;
 - falls from heights; or
 - electrical safety.
- Encourage each pair to consider choosing one risk and if possible devising a quiz, asking employees for their responses.

Do

- Allow each pair to think about how to say what they want to happen in the program in English first (known as pseudocode), noting it in their journal or storyboard.
- Encourage each pair to choose sounds, backgrounds and sprites/images suitable for their project, demonstrating a clear understanding of their target audience. Allow them to use the internet and electronic sources, making a note of their sources, and to consider copyright-free sites. Alternatively, the pair could take suitable photographs, draw images, or record their own sounds. They can then import their photographs and sounds into their game.
- Encourage the pairs to consider how they might code the project so that sprites/objects interact and perform in the manner expected. Ask each pair to use a range of appropriate commands or events/actions to implement this. For example:
 - use control commands or events to allow the program to respond appropriately to the user's inputs;
 - use appropriate motion commands to move, turn or point a sprite/image in a direction, and/or set the co-ordinates for it;
 - change the appearance of sprites/images; or
 - provide appropriate feedback in the form of sounds.

- Ask each pair to consider using more complex procedures in their project, for example by using:
 - a 'broadcast/when I receive' command in Scratch (broadcasting sends a message to another sprite in the program, when the other sprite receives the message it is programmed to react in some way); or
 - more advanced events in Mediator such as 'Drop On' combined with 'IF' actions to allow decisions to be made based on user input; or
 - operators and variables to keep a score in a quiz (operators allow numbers to be added, subtracted, multiplied or divided, to report if conditions are true, to choose a random number, to check if a number is bigger than, equal to, or smaller than, another number. Users can name variables and use them with operators to keep score).
- Ask each pair to try to build their project, importing any pictures or sound that they think are appropriate for the intended audience and purpose.
- Remind the pairs to save their work, using suitable filenames, to show the different versions created. They should note in their journal any difficulties encountered and how they overcame them. The pair should run their project and fix any problems, saving their work.
- Encourage each pair to reflect on their work and consider whether their code for the program could be more efficient. Allow pupils appropriate time to make improvements to their program.

Review

- Allow pupils to carry out peer assessment on each other's work, suggesting improvements based on the agreed success criteria.
- Allow each pair time to implement some of these improvements, noting the changes they made in their journal and how they improved their project.
- Invite local businesses, similar to those that the pairs are targeting, to view the projects and ask them for feedback.

For further advice on using Scratch, please see the document '*Internet Safety When Using Scratch*' on the Primary ICT Accreditation, e-Safety section of the CCEA website.



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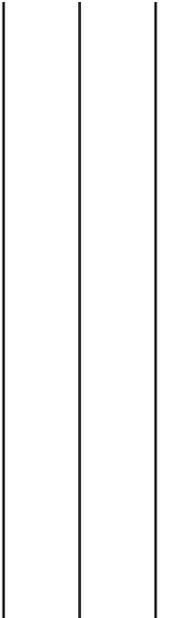
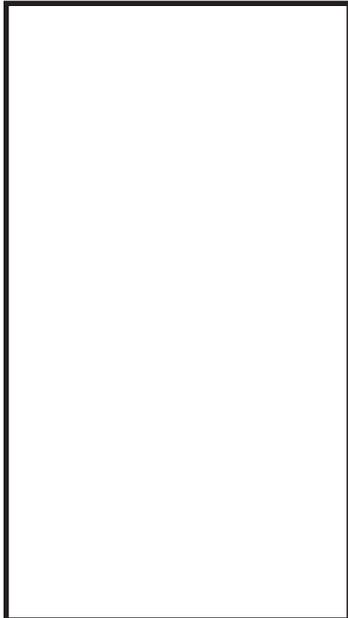
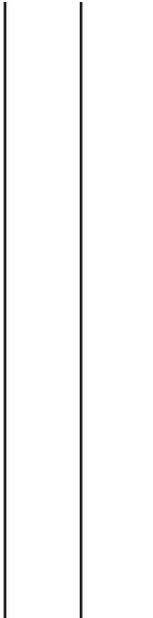
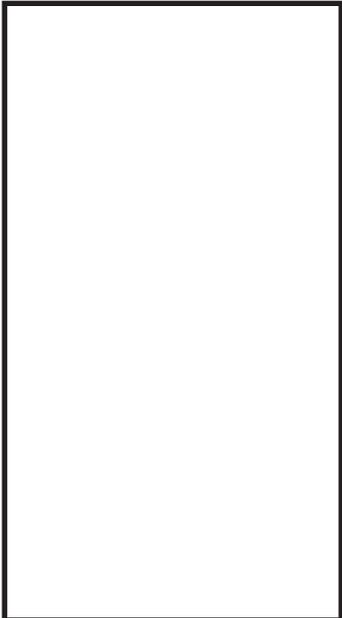
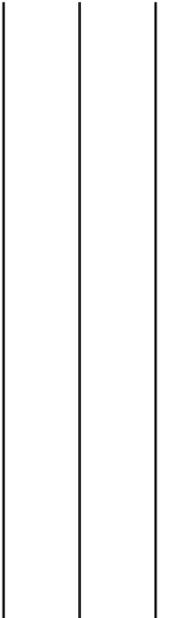
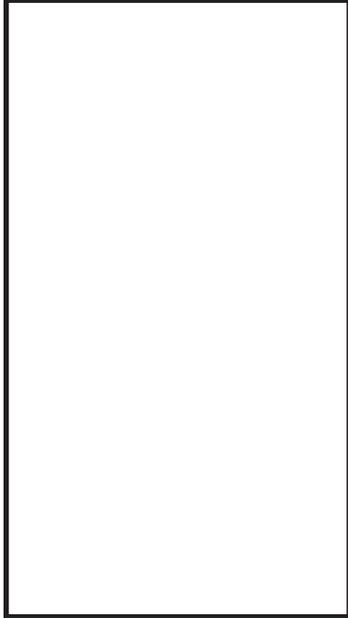
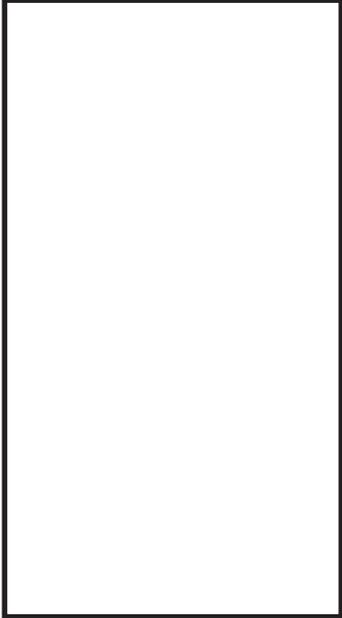
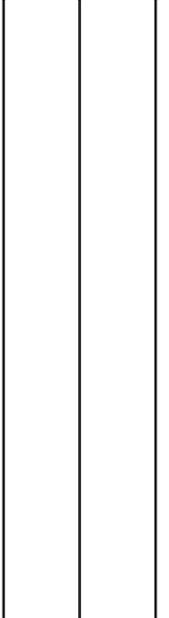
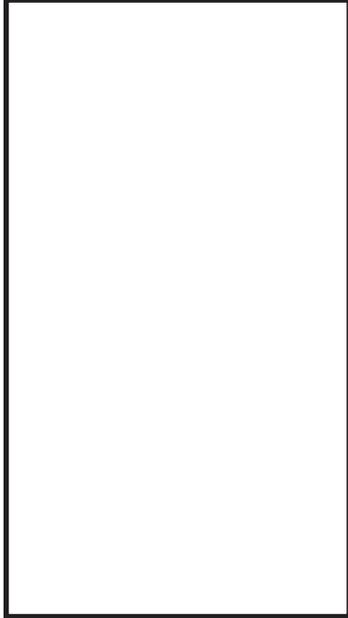
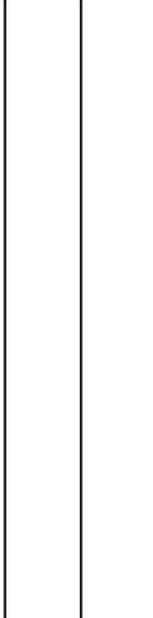
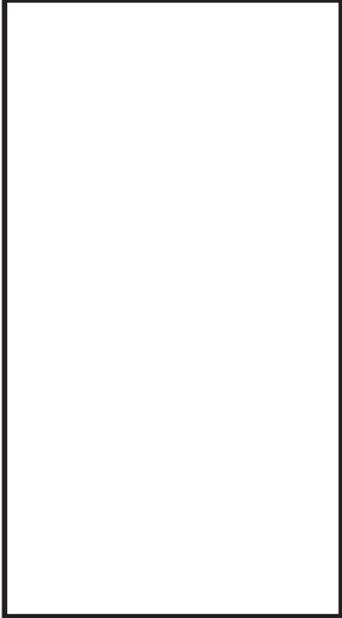
Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4, 5 and 6.

The UICT Desirable Features provide guidance for creating success criteria to help develop this activity as an assessment task.



Storyboard Template



Contributory Strand:

Home Economics

Food Poverty

Resource Overview

Zest: A Guide to Support Home Economics Teachers
– Section 2.2

Pupils research the issue of food poverty in the UK.

Context for Developing UICT Skills

Pupils work in pairs, developing their skills in **Web Design**.

Purpose: to produce a website about the consequences of food poverty.

Pupils may incorporate a range of assets, such as a podcast or video demonstration, into their website.

Audience: pupils may choose to develop their website for either older people or young families on low incomes.

Suggested Hardware and/or Software

- Microsoft Expression Web 9 (C2K)
- Mediator 9 (C2k)
- Microsoft FrontPage (C2k)
- Adobe Dreamweaver
- digital camera

Useful Websites

- www.nhs.uk/LiveWell (contains information on the Eatwell plate)
- www.bbc.co.uk/food/diets/healthy
- www.sustainweb.org (search 'what is food poverty?')

Plan

- Introduce the term food poverty and ask pupils what they know about the issue. Ask them to also consider what they would like to find out about the issue. Suggestions may include:
 - What is food poverty and who does it affect?
 - What are the consequences of food poverty?
 - What are the solutions to this issue?
- Explain that pupils will publish a website dealing with the issue of food poverty.
- Allow pupils time to research and explore some of their questions. As a class, discuss what they have learned as a result. Encourage them to consider what information surprised or shocked them.
- Ask pupils to consider which audience their website will target.
- Use the Eatwell Plate to recap the importance of eating a healthy balanced diet. Encourage pupils to consider this in relation to their chosen audience.
- Demonstrate a website, for example www.bbc.co.uk/food that shows recipes and discusses issues relating to food. Ask pupils to note the different forms of media used on the website. Examples may include:
 - video;
 - audio;
 - photos;
 - links to other websites; and
 - PDF versions of documents to print.
- Invite pupils to share the media that the website used and to consider using these in their own website.

- Discuss the website design and explore the elements that require prior planning. Examples include:
 - a banner;
 - a footer;
 - buttons (and rollover buttons – when the mouse is over the button it changes appearance to show that it can be selected);
 - font; and
 - colours (of text, backgrounds, hyperlinks etc).
- Encourage pupils to consider the audience chosen and to take this further by thinking about the needs of users with learning difficulties and/or disabilities in the design of their website and associated assets. For example, they could upload a podcast of a recipe with text for those who have difficulty reading or who have sensory impairment.

Do

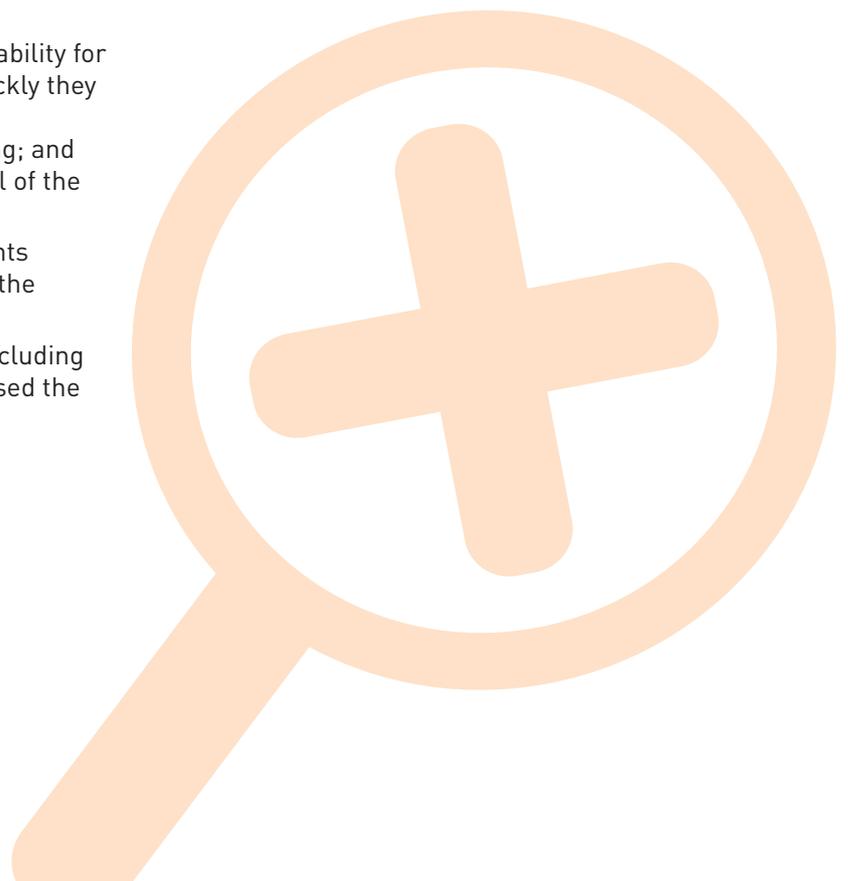
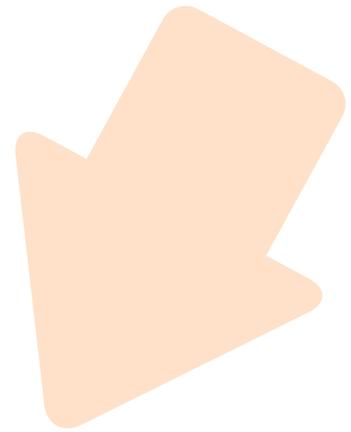
- Ask pupils to set up a Word document to keep a record of the decisions they make and the websites they visit, including evaluations, throughout the process of creating their website.
- Invite pupils to plan their websites, with audience and purpose in mind, and to decide on the structure and page layout.
- Discuss with pupils the importance of ensuring that the assets they use on their website do not break copyright regulations. Encourage them to consider using self-produced assets, such as video, audio and/or photos, to avoid copyright issues.

- Ask pupils to consider the resolution and file sizes of assets (for example, video, audio, photographs or PDF files) they use in their website. They should make sure that, when the site is live, the files download quickly and are not pixelated.
- Remind pupils to think about how they will organise the files they want to publish on their website, as they may create a number of assets and web pages.
- Give pupils time to consider which software they will use to manipulate their assets to make them ready for the web, for example which editing software they will use for a self-produced video.
- Discuss with pupils the success criteria for this task, relating them to the audience and purpose. Examples may include:
 - using video;
 - using audio;
 - using hyperlinks;
 - using photographs; and
 - creating a logical structure of folders for the assets used in the website.
- Ask pupils to use appropriate filenames so another programmer could easily identify the assets that are used.
- Ask pupils to create a logical structure of folders for the assets used in the website.
- Ask pupils to check that their website works as they expected and to make any necessary improvements, saving their work.



Review

- Ask each pupil to present their website to a local community group.
- Encourage the audience to give feedback on the website, for example considering:
 - ease of use;
 - appropriateness of content;
 - suitability of colours and fonts; and
 - quality of the videos, audio and/or photos.
- Suggest each group gives feedback on other groups' work, using the agreed success criteria. If pupils included a forum or feedback form on their website, they could use it for this purpose.
- Encourage each group to make improvements to their website, based on the feedback. Remind them to note any changes they make and record, in the Word document/blog, why they kept some items the same.
- Ask the groups to save their website and if possible upload a new version to their intranet or Fronter.
- Divide the class into groups and use the Carousel method to ask them to view each other's websites and consider the suitability of the following for the target audience and purpose:
 - the quality of the images, their suitability for audience and purpose and how quickly they download;
 - the text, both content and formatting; and
 - the overall design and visual appeal of the website for the target audience.
- Allow pupils time to make improvements to their websites and save a copy with the amendments.
- Ask pupils to reflect on the process, including the choices they made and how they used the software to overcome any difficulties.



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Assessment Opportunity

You could develop the suggested use of ICT into an assessment task and adapt it to target a range of levels, for example Levels 4, 5 and 6.

The UICT Desirable Features provide useful guidance for creating success criteria to help develop this activity as an assessment task.



Contributory Strand:

Personal Development

Drugs Awareness

Resource Overview

Insync – Unit 10 Drugs Awareness:
Teaching Activity 1 The Craving for Drugs

Pupils categorise drugs according to their characteristics.

Context for Developing UICT Skills

Pupils work in pairs, developing their skills in **Game Making**.

Purpose: to create a game to raise awareness of drugs categories.

Audience: young people aged 14 –15 years.

Suggested Hardware and/or Software

- GameMaker (C2k)

Plan

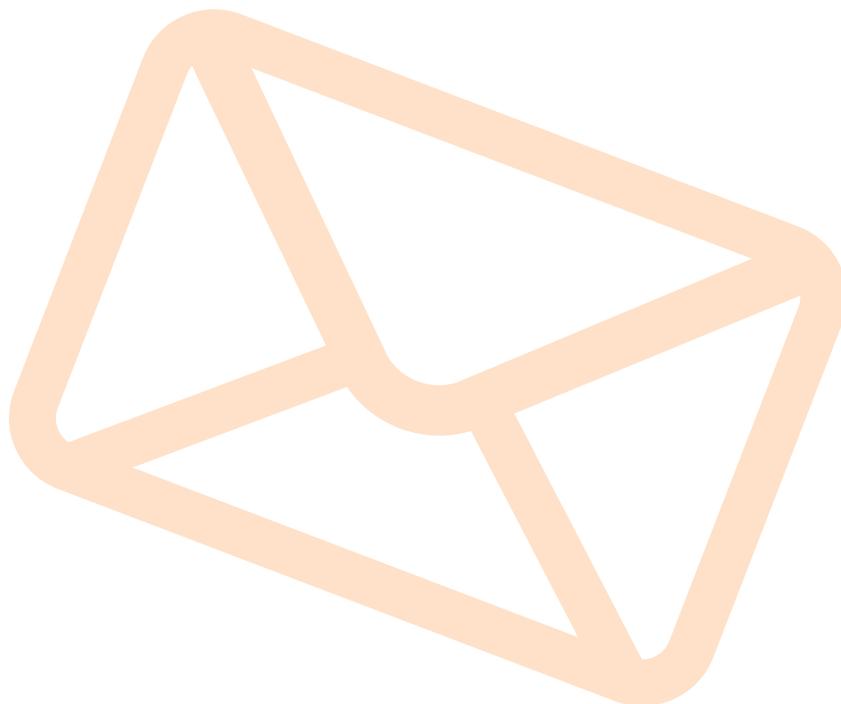
- Divide the class into pairs.
- Recap the categories of drugs.
- Ask each pair to create a computer game for Year 11 pupils. The object of the game is to learn more about drugs and be able to categorise them correctly.
- Show the class, or talk about, a variety of different computer games. Ask each pair to describe some of the features in a particular game. Examples may include:
 - ball and paddle games such as Breakout;
 - maze games such as Pac-Man;
 - platform games such as Donkey Kong;
 - shooters such as Space Invaders; or
 - puzzle games such as Tetris.
- Give each pair an A3 page. Ask them to create a spider diagram of the features of games. Discuss how these can be adapted to suit a particular audience, or to create an atmosphere. Examples may include:
 - frequency of events;
 - increasing difficulty of events;
 - ensuring ALL characters have at least one event;
 - triggers for events;
 - instructions at the start of the game explaining the purpose of the game and the keys/mouse clicks needed to operate it;
 - graphics of characters or objects in the game, called 'sprites', including the ability to choose your own sprite;
 - colours used for the game;
 - fonts used;
 - music and sounds used;
 - the layout of the screen(s), including use of white space;



- the background(s) that can add to the atmosphere of a game;
- the 'gameplay', or rules that define the game, such as:
 - ★ showing the names and categories of drugs, allowing the user to click the correct answers and answering against the clock; or
 - ★ scrolling each drug name down the screen, like Tetris pieces, with a 'catcher' at the bottom that the user can move left and right to collect the names that match the categories.
- scoring that may encourage a user to play a game again in order to beat their previous score;
- number of players allowed;
- number of lives available in games, that may add to the challenge;
- the speed of the game: some games get faster, and therefore harder, as a user progresses through them;
- different levels in the game, with increasing difficulty;
- a 'game over' message; or
- a table of high scores when the game finishes.
- Encourage pupils to negotiate an agreement for success criteria for this task, for example:
 - suitability for the target audience;
 - ability to categorise drugs;
 - clear and meaningful storyboard;
 - using pseudocode or similar to plan events;
 - use of variables;
 - suitability of sprites, sounds, music and backgrounds – both in style and clarity of finished asset;
 - usability of scoring system;
 - enjoyability of the game play;
 - combinations of events/procedures;
 - 'how to' and rules of the game clearly explained;
 - the use of increasing difficulty (by speed, number of lives, extra activities, etc);
 - testing the game (extra marks for those who use both programmer and user testing);
- editing the game following feedback from testing;
- using appropriate filenames so another programmer would understand the assets that are used;
- creating assets and a final game file of a suitable size for download;
- publishing the game in a suitable format; and
- uploading the game to the school intranet/ C2k area/or similar.
- With pupils, discuss how programmers usually plan and storyboard games before any programming takes place. With careful planning a programmer will, before using a computer, know:
 - the sprites to create;
 - the music to create;
 - how users will play the game;
 - the scoring;
 - the speed the game operates at; and
 - the number of levels.

A programmer may also write the instructions to make sprites work in English, or pseudocode, before trying to program it on the computer.
- Allow each pair time to consider what type of game to make. They should consider, for example:
 - the target age group of users;
 - if a type of game is more or less appropriate for the topic of categorising drugs; and
 - which 'look and feel' is appropriate for the topic.
- Encourage pupils to set up a Word document or to keep a record of the decisions they make (for example the type of game), including justifications, throughout the process of creating their game.
- Invite each pair to plan their game and decide on its structure and layout.
- Remind each pair that they can plan the gameplay using a computer program.
- Encourage each pair to consider:
 - software;
 - number of levels (if time is limited they should make only one level);
 - events in each level and how to finish the game;

- atmosphere;
- sprites;
- backgrounds (different for each level);
- music;
- sounds;
- scoring system; and
- how to win/rate end result.
- Each pair should also remember to explain the rules of their game succinctly to the end user.
- Provide time for pupils to consider if they will need to use any other software to create their assets, for example:
 - image manipulation software; and
 - music composition software.
- Remind pupils to create a folder to store their files. Ask them to carefully consider using file formats so they make best use of storage space and ensure the files are still suitable for their purpose. Encourage them to give all their files meaningful names.
- Each pair will need several lessons to create the assets and game.
- Encourage pupils to save their work regularly and to save 'back-up' versions at critical points.
- Agree a deadline for when all assets should be ready. Remind pupils that their sprites should be able to do the actions that the games require. This may mean that they need different versions of each character, for example jumping or standing.
- Encourage pupils to list the required assets for their purpose, any versions needed, their filename(s), file type and size.
- Remind pupils to consider the properties they will need to program for each object, the events that may occur for an object and the consequent actions that will be needed. The following table shows an example.



Level 1: Depressant Drugs

Objects	Events	Actions
Bin	User press left arrow key	object (bin) moves to the left to catch/avoid the drug asset
Bin	User press right arrow key	object (bin) moves to the right to catch/avoid the falling drug asset
Bin	If object (bin) touches the side of the screen (wall)	the object (bin) stops moving until user decides to move it again
Bin	If object (bin) touches the correct word, for example alcohol	award user ×1 point
Bin	If object (bin) touches incorrect word, for example nicotine	deduct ×1 point from user

Do

- Demonstrate each step of using the game creation software. GameMaker has a tutorial that guides you through basic game creation.
- Remind pupils to update their record as their work progresses. Each pair should think about the gameplay in their game, for example:
 - showing the names and categories of drugs;
 - allowing the user to click the correct answers and answering against the clock; and
 - scrolling each drug name down the screen, like Tetris pieces, with a 'catcher' at the bottom that the user can move left and right to collect the names that match the category.
- Provide time for pupils to think about the design of their game screen(s) and to develop the assets they need.
- Suggest pupils create self-produced assets or manipulate existing images/sounds/music necessary for their game. Ensure each pair checks that their game works as expected and makes any necessary improvements, saving their work.

Review

- Ask pupils to create a test plan for their game. This should involve both the game creators and potential game players testing the game separately. The test plan should state:
 - what they are testing;
 - the expected results;
 - the information input/action taken;
 - the actual result; and
 - any editing needed.
- Each pair should demonstrate their game to their peers (fellow programmers) and to a Year 11 audience (potential users) to ensure it works as expected and to gather feedback. Where possible, ask pupils to upload their game to a purpose-built website that allows users to test it, comment on it and suggest improvements.
- Remind pupils to consider the agreed success criteria before they provide feedback.
- Encourage pupils to make improvements to the game, using the feedback. Ask them to note the changes they made in their Word document or blog.

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Assessment Opportunity

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