

Crack the code!



D102 SPB 0906

SUPPORT NOTES FOR TEACHERS

14 November 2006

Introduction

These notes should be read in conjunction with the Moderators' Report for D101 which offers feedback on the most recent moderation series.

Updates since the previous issue are indicated by a vertical line in the margin.

Before tackling the SPB, students should have acquired the appropriate ICT skills, knowledge and understanding as specified in the 'What You Need To Learn' and 'ICT skills' sections of the Unit 2 specification.

Students must have access to a range of appropriate multimedia software (see pages 92/93 of the spec). Some suggestions can be found at the end of this document.

The D102 SPB 0906 is valid for moderation in May and December 2007 and in May and December 2008.



Section 1 Using the SPB

Access and Navigation

The SPB is a complete, integrated digital publication and is intended to be accessed on-screen. Although it may be useful to print off sections for reference purposes, students may be disadvantaged if they do not work from the interactive onscreen brief.


Although the links in the navigation bar are roughly in sequence, students should be reminded that one task often depends on one or more other tasks and they should make use of the interactive nature of the brief.

Where more than one page relates to a main task (such as the eportfolio), they appear as a submenu. Students should be encouraged to read all the pages in a submenu in sequence to see how they relate to one another.

The symbol  at the top of each page allows students to print the page. A new feature is indicated by the symbol  which allows students to listen to the contents of the page. This feature will be activated once the feedback period is over.

Mark Alerts





Indicated by the symbol , each Mark Alert is a series of questions with tick boxes. Clicking the symbol opens another web page and students may tick the questions onscreen or print the list and complete on paper. Students should check that they can tick each box to help them ensure that they have met the requirements and that their work is fit for purpose.


Section 2 What, where, who?

What evidence is required?

Students do not need to submit evidence of everything they do during their work on the project.

The symbol  indicates a task to be done.

The symbol  indicates a stage where evidence must be saved for the eportfolio. There is also a summary document attached to the eportfolio page.

Students should not be tempted to omit tasks which are not preceded by the  symbol as they are crucial to success. A good example is an instruction to test a product. It is not, however, necessary for students to write long commentaries explaining how they achieved each task.

Students must ensure that they present the products as clearly as possible, remembering that moderators will view all evidence on screen.

What additional resources are provided?

There are a number of files provided with the SPB, accessed via links within the brief. Where a task requires use of a file, for example the planning template, students should save a copy to their user area before continuing.

The Moderator's Toolkit

There is no longer a list of acceptable file formats. This has been replaced by a Moderator's Toolkit which specifies the readers and players that all moderators will have available. It is each student's responsibility to ensure that their eportfolio only includes files which can be read using the toolkit. It will be updated when necessary.

Legal requirements

Students must not include any assets for which they do not have permission and should also bear in mind that whilst the eportfolio is produced for education purposes, the individual products each have an audience and purpose. Even if permission can be gained for study/educational purposes, would it be acceptable bearing in mind the intended purpose e.g. display in a public place, distribution to individuals? Students should be aware that if they do not fully comply with legal requirements they restrict their marks as they are not demonstrating good awareness of audience and purpose.

Where does the work have to be carried out?

Work on the products themselves must be carried out within the controlled environment and the teacher must be able to authenticate each student's complete eportfolio with confidence.

However, there is much that can be done away from the controlled environment.

Acceptable activities include:

- reviewing and updating the plan - this will change the focus of the plan for the candidates and they are more likely to view it as an ongoing process rather than a one off task
- commenting on progress - what is going well, what is not going so well - this could be a separate column on the plan or a separate document and will assist with the final evaluation
- researching appropriate sources of information related to the scenario and products, keeping records of where information was found and how it could be used
- initial design documents for the products and feedback from others on these designs
- prototyping of own, or others' products - gathering feedback from test users so that products can be improved where appropriate
- reviewing final products and the eportfolio

Who can help?

It is expected that candidates will generally be given support and guidance by teachers at this level. This support might take the form of prompts to get feedback at an appropriate time in the development of their project; it might even be pointing out who are appropriate test users or reviewers of the products being produced. The amount of guidance must be taken into account when applying the mark scheme.

The scaffolding documents are provided to assist candidates but it is anticipated that teachers will help candidates in their use of these documents, to enable them to get the best from them.

Test users should be asked to try out and comment on products under development and this should be viewed as an ongoing process. Students should not wait until products are complete at when it will be too late to take advantage of any suggestions for improvements.

Test users can be peers, teachers or other adults who can offer constructive feedback.

Reviewers comment on final outcomes and the eportfolio, and these comments will be used in the final review. Reviewers should also be asked to comment on the student's work on the project as a whole.

Time should be allocated on the plan for gathering and responding to test user feedback and for gathering reviewer feedback. Students should check when suitable test users and reviewers are available for comment before including them in the plan.

Section 3 Tackling the SPB

The Scenario

Crack the Code! is meant to be fun! The aim is to produce one final product, the game, which consists of a number of components. Each of these components should be viewed as a product in itself.

Students need to be clear about the audience for the game and the purpose of each component. They should explore the examples given at various places in the SPB and other relevant sources before starting work on the design of individual components.

Planning

It cannot be emphasised too strongly that students must start out with a workable plan which gives them a clear overview of timings and objectives and allows them to monitor their progress during the project. Teachers should give as much guidance as necessary to achieve this. Although this may affect the marks for strand (a), benefits can be expected throughout the rest of the project. The following paragraphs, extracted from the Principal Moderator's Report, underline the importance of this:

To help them manage the project and meet the deadline, candidates need a workable, upfront plan that lists the main tasks in a logical order and allocates time to each of them, indicating which work is to be completed in class and which will be done elsewhere. Candidates should allocate specific amounts of time (hours/minutes) to tasks so as to help them manage their time effectively. Once the project gets underway candidates are expected to use their plan to track their progress. Teachers should encourage them to do this on a regular basis.

Many candidates failed to show evidence that their plans has been used to track and monitor progress. A small number of candidates had used the notes column effectively within the plan to record progress throughout the project; a small number of others had used a diary. However, many candidates had not really recorded or monitored progress throughout the project, it tended to be a narrative of events such as "I made this using Movie Maker". Most candidates also failed to include checkpoints and 'slack' time within their plans. Some candidates had included a draft and a final version of their plans within the eportfolio as evidence of planning. But many of these failed to include any other detail other than a minor change in some dates for some subtasks.

On the planning page there is a link to a table and template for the project plan. The table lists most of the tasks and sub-tasks required for the project. It is intended to help students work out what is required and to ensure that they develop a complete plan. The plan template may be used to prepare the detailed project plan or students may design their own. Either way, they must include all the tasks and sub-tasks listed in the table together with additional sub-tasks agreed with the teacher. The tasks are not stand alone with some tasks relying on the prior completion of others. Students may wish to re-order the tasks in the table. They should decide on the order and give an indication of time for all tasks and sub-tasks as well as other information indicated in the template. It is important that students recognise that prototyping and testing of products are important sub-tasks and should be included in their plans.

Students should agree their initial plans with their teacher and check that they have selected appropriate tasks for completion as homework. These tasks should be clearly shown on the plan. Teachers should offer feedback at this stage that will enable the student to formulate a workable plan, bearing in mind that it is perfectly acceptable to make adjustments later.

We recommend that students identify interim checkpoints on their plan when they will discuss progress-to-date with their teacher and make any adjustments that are necessary.

The eportfolio checklist indicates that an initial plan should be included as well as the final plan. Interim plans should only be submitted if they are really needed for clarification. A comments column can be a good way of indicating decisions and changes made.

The project log

Students are required to keep a project log which they can use to record progress, problems and other issues that arise. There is no need to duplicate this information on the project plan. It should complement the information in both the plan and the end-of-project review.

There is no recommended format for this and students should use a method which enables them to quickly and easily keep a record as they go along.

Design

Candidates who produce detailed up-front designs and use feedback from others to refine them are most likely to produce outcomes that are fit for purpose.

We are looking for a visualisation, not a perfect reproduction, of the finished product.

Candidates need to be clear that a storyboard will enable them to develop their ideas about the 'look and feel' of the product, e.g. colour schemes, fonts, placement of assets, number and types of asset to be used, navigation etc. Would the candidate be able to implement the product from the designs they have created?

Retrospective 'designs' are totally unacceptable.

Gathering Assets

Students must use their assets table to provide evidence to show which sources they have used, what assets they have used from their chosen sources, how they have edited them, where they have used them and why they are appropriate.

It is important that students indicate how they have prepared assets for use in their products. For each asset this might be achieved in the assets table, by annotation of the original or final version or by a commentary. However, we do not require a narrative description of the process itself.

Teachers should offer guidance or encouragement where necessary to ensure that students have all the assets they need to create products that are fit for purpose.

The websites listed in the SPB allow students to use images provided the terms and conditions are followed. The students must check the conditions of use for each asset and obtain permission for use where necessary or acknowledge copyright.

They should be reminded that a search engine such as Google is unlikely to be the source of a digital asset.

To optimise file sizes, students should ensure that their images are not saved at a resolution that is too high (big file sizes) nor too low (pixelated images).

The project review

Students should be prompted at every stage to gather evidence of feedback and problems and to update their project plan and log.

Level 1 students often find project review difficult and teachers may need to assist them by asking leading questions about aspects of their work.

It is important that the review is comprehensive and covers all aspects listed in the review document (linked from the review page). They may find it helpful to complete sections as they go along and should enter as much detail as they can in each of the boxes.

Section 4 The Game

General

The game consists of a number of components. The three levels require a short slideshow, a short video and a guessing game. They are accessed via an opening screen which also provides links to the instructions and the game ending.

Students should take careful note of the requirements, paying particular attention to the audience and purpose.

Storyboards should be sufficiently detailed to clarify ideas, allow constructive feedback and facilitate implementation. They may be produced on paper and scanned or produced electronically. Students should also show how testing, acting on feedback and refining their designs influenced the finished product.

Any suitable software may be used to construct the game. Students are free to make use of software features such as wizards. However, they should be clear that wizards are only intended to help them, not do the job for them. They should customise the output from wizards to ensure that the products are fit for purpose. It must, of course, be possible to play the game using only the Moderator's Toolkit and students should not assume that further readers will be added to the toolkit before their work is moderated. Additions to the toolkit will be notified to centres registered for email alerts.

Students may use the templates and examples provided or they may design their own.

The target audience and the theme

The target audience is the student's friendship group but they should specify the age range and gender they have in mind - this should be done in the game instructions and in the commentary.

Students should choose a theme which interests them and which will appeal to the target audience.

This theme must run throughout the game so it is important that students select a topic that allows them to create the products and ask suitable questions about them.

The game

At each level of the game players must answer two questions to find two letters of a six part code.

As all the components are inter-related, students should try to take advantage of this by re-purposing assets where possible.

Students should create a game folder (with sub-folders as required) to store all components of the game as they go along.

Level 1 slideshow

The slideshow must have four slides as shown on the outline storyboard. The final slide must display two questions about the content of slides 2 and 3.

Students must complete a detailed storyboard using the outline to help them explore ideas about design/layout, etc.

The slideshow must move from slide to slide automatically so students must give some thought to timings.

Students may use any software capable of producing a slideshow that is fit for audience and purpose.

Level 2 Video

This product must be a video. Students will need to book out equipment and this should be built into their project plans.

Students should film one person talking about something related to their chosen theme.

Students are required to produce and submit a script for the video. This can be a simple text document.

Students are required to shoot raw digital video footage and then edit it - including an audible commentary. They must ensure that the video and the sound track are of an acceptable quality. Small groups may produce a common script and take raw video footage together so long as they edit the material individually. It is not acceptable for teachers to make raw video footage available to students.

The video must run for between 60 and 90 seconds, including the questions. Any length within these parameters is acceptable.

The questions must be asked at the end. They can be asked by the speaker or appear on screen as text. They can be signed or subtitled for accessibility.

Students may use any suitable software to edit the video. It must work with a common plug-in.

Level 3 Guessing game

There must be two puzzles where players must guess objects and/or sounds.

Students must create a detailed storyboard for each puzzle.

Any suitable multimedia authoring software may be used to create the puzzles.

The main screen

The main screen is central to the game as all other components can be accessed from here.

Students are free to design a suitable screen but must create a storyboard. It must be clear what links there are and the design must reflect the chosen theme.

The instructions and coding sheet

This must contain the information listed in the SPB.

The instruction and coding sheet must be a printable document. Players will use it to record the letters of the code. Students may create their own or edit the given outline.

Players must be able to open and print the instruction sheet from the main screen.

The game ending

Students may need assistance with this section - ensuring that the two files are stored within the same folder in the eportfolio and altering the txt file to match their correct code. This is perfectly acceptable.

The code is case-sensitive so students may wish to decide whether to use capitals or lower case and include this information in the instructions.

| Students should not attempt to edit the Flash movie.

Section 5: The eportfolio

The maximum size for the eportfolio has been increased to 30 MB for this SPB. However, students should be reminded that they will easily exceed this figure if they include unnecessary files such as prototype movies and other files that are not used in the final products. The eportfolio must be viewable in any common browser.

The eportfolio must be viewable in any common browser. Any suitable software may be used to construct the eportfolio - specialised web authoring software is not essential. However, students should be discouraged from using Powerpoint or other presentation software for this purpose. Those who do so must convert the eportfolio to html. The Powerpoint viewer in the Moderator's Toolkit is there to allow moderators to view evidence files within the eportfolio. Students should be encouraged to test their eportfolios in more than one browser.

Students should try to create a showcase for their products, incorporating assets such as movies or audio feedback where appropriate. They should, however, avoid inappropriate assets which are not relevant to the audience and purpose.

Students who do not use the given structure should ensure that their own is logical and complete. They should ensure that they provide working links to all the specified items of evidence even when the eportfolio is transferred from the network.

There must be an easily recognisable home/index page giving key information including: candidate name and number, centre name and number, unit name and number and date.

Students should allocate sufficient time to the design of the eportfolio, aiming for consistency of presentation and good layout using colour schemes that are conducive to on-screen viewing. They should introduce evidence with helpful comments.

Students should ensure that they provide working links to all the specified items of evidence even when the eportfolio is transferred from the network. One possibility would be to allow students access to a standalone computer for testing purposes. If this only has the Moderator's Toolkit installed then students will also be able to check that their eportfolio conforms to the technical specification.

There is no need to include evidence of testing the eportfolio. It should be possible to infer that testing has occurred and to judge its effectiveness by the quality of the product.

There is a link to an eportfolio checklist which includes most, if not all, of the items that students should include. Additional items should only be added if these are necessary for assessment to be effective.

Some possible software choices

Movie Maker, Producer, Flash, PowerPoint, Matchware Mediator, Adobe Premier Elements, Ulead Video Studio, Mediator, SWiSHmax, Sothink SWF Quicker, Dreamweaver, Fireworks, Freehand, FrontPage

Dance EJ, Audacity, Magix Music Maker, Garage Band