

F1 in Primary Schools Project: Use of PowerPoint to make a multimedia presentation for CO₂ powered race car

About this Unit

In this unit, children learn to create a multimedia PowerPoint presentation using text, images and sounds. They will be taught to create links between pages and show sensitivity to the needs of their audience.

Children will apply what they have learnt in this unit to communicate and present information on the Design and Technology Unit: F1 in Primary Schools Project. This presentation will show the various stages of development of the children's designs, and may incorporate drawings, photographs, screenshots, sounds, text and moving images.

The PowerPoint presentation is an intrinsic part of the F1 in Primary Schools Project and children are expected to deliver an oral presentation of up to 2 minutes, which incorporates their PowerPoint presentation, to a set of F1 in Primary Schools Project judges.

WHERE THE UNIT FITS IN

Children may have created individual multimedia presentations in earlier units.

This unit assumes that children are familiar with digital stills cameras, digital video cameras and flatbed scanners.

TECHNICAL VOCABULARY

- interactive
- hot spot / hyperlink
- attach
- hypertext
- download
- screenshot / screen dump

RESOURCES

- PowerPoint
- digital stills camera
- digital video camera
- flat bed scanner
- Prodesktop
- microphone
- colour printer
- printouts and copies of sample presentations
- Internet browser
- CD-ROM's / DVD's
- Reference books

EXPECTATIONS

at the end of this unit

most children will:

use PowerPoint to organise, refine and present in no more than 2 minutes, a set of linked multimedia pages, which incorporate images, sounds and text to accurately show the development of their F1 in Primary Schools Project designs.

some children will not have made so much progress and will:

use PowerPoint to assemble images, sounds and text on a multimedia page which shows the development of their F1 in Primary Schools Project designs and then include this page in an oral presentation of up to 2 minutes.

some children will have progressed further and will:

use PowerPoint to organise, refine and present in no more than 2 minutes, a set of linked multimedia pages, which incorporate images, sounds and text; create pages which offer users a variety of options; present accurate, detailed and visually stimulating information that shows the development of their F1 in Primary Schools Project designs.

LEARNING OBJECTIVES	TEACHING ACTIVITIES	LEARNING OUTCOMES	POINTS TO NOTE
SETTING THE SCENE			
<p>CHILDREN SHOULD LEARN</p> <ul style="list-style-type: none"> KEY IDEA: That computer software can include a range of media and gives the user a range of options What is the F1 in Primary Schools Project 	<p>§ discuss with class the difference between a CD-ROM / DVD and books and videos, and demonstrate that a CD-ROM / DVD includes a range of media and offers users different options. Discuss how these options address the needs of different audiences.</p> <p>§ Watch videos located on the F1 in Primary Schools Project CD-ROM to give children an idea of what the project is all about.</p>	<p>CHILDREN</p> <ul style="list-style-type: none"> understand the potential of multimedia understand what the F1 in Primary Schools Project is all about. 	<ul style="list-style-type: none"> Children should be encouraged to think about the advantages and disadvantages of multimedia and how it compares with other forms of communication, such as telling a story.
SHORT FOCUSED TASK			
<ul style="list-style-type: none"> TECHNIQUE: to design multimedia PowerPoint pages 	<p>§ Show the children PowerPoint presentations from previous F1 in Primary Schools Projects CD-ROM as well as paper printouts of PowerPoint displays. Discuss how emphasis and location help the user understand the page, <i>e.g. how buttons are placed consistently, how bright colours and sizes are used to indicate importance, how pictures and text complement each other.</i></p> <p>§ Ask children to evaluate a number of PowerPoint presentations and list the features they think make a good page design and those which do not</p>	<ul style="list-style-type: none"> understand what is required from their PowerPoint presentation recognise the features of good page design 	<ul style="list-style-type: none"> Features of a good page design include clarity, buttons placed consistently, easy to understand icons, appropriate use of pictures and text, appropriate use of colour
<ul style="list-style-type: none"> TECHNIQUE: to insert images 	<ul style="list-style-type: none"> Demonstrate how to insert still images into a PowerPoint page. These still images could be obtained from clipart, the Internet, taken with a digital stills camera or from file. Demonstrate how to insert a moving image into a PowerPoint page and how to create a button that plays the image. These images could be obtained from clipart, the Internet, taken with a digital video camera or from file. Divide the class into groups and ask them to create a page of images, some still and some moving. 	<ul style="list-style-type: none"> create a page of images which may be activated by appropriately named and positioned buttons 	<ul style="list-style-type: none"> A well chosen image, cropped and positioned well, will convey an idea well. Too many pictures or flashy images used with no thought to their usefulness, will lower a presentations overall effect.
<ul style="list-style-type: none"> TECHNIQUE: to sample sounds 	<ul style="list-style-type: none"> Demonstrate how to insert sounds from clipart and how to create a button which plays that sounds. Demonstrate how to record sounds using a microphone and how to create a button which plays the sounds. Divide the class into groups and ask them to create a page which includes a menu of sounds. This page could include sounds that provide differing reactions to a background image such as a forest or a mysterious looking house at night time. 	<ul style="list-style-type: none"> create a page of sounds which are activated by appropriately named and positioned buttons 	<ul style="list-style-type: none"> The same rules for the image mentioned above, apply to the use of sounds. Sounds should be appropriate and necessary, and should not detract from the overall presentation.
<ul style="list-style-type: none"> TECHNIQUE: to produce a diagram that shows the links between pages TECHNIQUE: to create buttons to link pages 	<ul style="list-style-type: none"> Demonstrate how buttons can create links between pages. Prepare a set of A4 sheets showing sample multimedia pages without links. The set should include a menu page and pages which lead to a number of the following pages. Ask the children to work in groups to identify the links between the pages, draw on any necessary buttons and write next to the buttons the page to which they link. Ask each group to produce a flow chart showing the links between the pages. The arrows on the flow chart should be labelled with the choice that would appear on screen. 	<ul style="list-style-type: none"> organise sample screens and identify appropriate choices and links 	<ul style="list-style-type: none"> Children who find connecting pages easy to understand could be introduced to the idea of branching structures with multiple layers.

LEARNING OBJECTIVES	TEACHING ACTIVITIES	LEARNING OUTCOMES	POINTS TO NOTE
INTEGRATED TASK			
<p>Children to be placed in teams of six, two of whom will design the CO₂ powered car using Prodesktop, two children to produce PowerPoint presentation of design process; the other two children will design and apply the skin of the car, take photos and digital video. Any spare time will be used to produce promotional material.</p>			
<ul style="list-style-type: none"> To use PowerPoint to organise, refine and present information on the development of F1 in Primary Schools Project car designs for presentation to F1 in Primary Schools Project judges. 	<ul style="list-style-type: none"> Explain to the children that they will use what they have learnt to create a PowerPoint presentation which includes images, sounds and text. The presentation, which will also include an oral element, is to run for no more than 2 minutes. Ask children to recall what they have learnt so far. Ask each group to list elements which will be included in their presentations. Children then gather their material. Children draw a diagram of their presentations on paper, showing page elements and links. Children should then design their pages on screen, test them and then print out a hard copy. Children should then practise giving a talk which includes their PowerPoint presentation, ensuring that it takes no more than two minutes 	<ul style="list-style-type: none"> design pages and links which present the user with clear information present a timed presentation to a suitable audience. 	

(A.Shields 2006-04-25 Updated)