

Unit 4B Developing images using repeating patterns

Adapted from QCA IT Unit 4B

ABOUT THE UNIT

In this unit children learn to develop visual ideas and to realise these ideas using ICT. Children will need to use a computer graphics package to explore and experiment with ideas and will amend and modify their work to meet specific outcomes. They also learn to save their work as they go along.

Children learn to use ICT tools appropriately and will select areas of an image to cut, copy and change. They learn to export their work to other packages and import images from sources such as clip art, scanner or digital camera.

Children will apply what they have learnt in this unit when using ICT to produce pictures, plans and maps in art, design and technology, and geography.

Opportunities are taken to link work with our History topic on the Tudors.

WHERE THE UNIT FITS IN

Builds on Unit 2B 'Creating pictures'

TECHNICAL VOCABULARY

- cut
- copy
- paste
- import
- export
- undo
- save as
- scanner
- clip art
- digital camera

RESOURCES

- a computer graphics package with a range of tools and edit features ([we will use MS Paint primarily](#))
- scanner, digital camera or clip art
- [examples of wrapping paper with a repeated design](#)
- [images of Seurat's work downloaded from the internet, on postcards and in books](#)
- [images of Picasso's work downloaded from the internet, on postcards and in books](#)

EXPECTATIONS

at the end of this unit

most children will:

use a computer graphics package to develop an image using a variety of tools

some children will not have

use a computer graphics package to develop an image

made so much progress and will:

some children will have

use a computer graphics package to develop and refine an image selecting the most

progressed further and will:

appropriate tools, and saving drafts

LEARNING OBJECTIVES CHILDREN SHOULD LEARN	POSSIBLE TEACHING ACTIVITIES	LEARNING OUTCOMES CHILDREN	POINTS TO NOTE
SETTING THE SCENE			
<ul style="list-style-type: none"> • key idea: that ICT can be used to develop images 	<ul style="list-style-type: none"> ◆ Remind the class how ICT features, such as cut and paste, can help them with their writing. Explain that they are going to use ICT to develop pictures, using similar tools and techniques. 	<ul style="list-style-type: none"> • recognise that ICT can be used to develop images 	
SHORT FOCUSED TASKS			
<ul style="list-style-type: none"> • key idea: that pictures can be assembled by repeating elements • technique: to use stamps and/or the copy tool • technique: to select areas, and copy them to the desired location on the “page” • key idea: undo can be used if a step is unsuccessful 	<ul style="list-style-type: none"> ◆ Collect wrapping paper that uses repeating patterns. Discuss how the patterns are created and talk about the background colours used. ◆ Demonstrate how areas of the screen can be selected and copied, pasted and repositioned. ◆ Show the class how to use copy and paste and ask the children to create wrapping paper based on a theme, (using the Tudor Rose and other Tudor-style icons or plants or animals). Encourage children to experiment with different flood fill backgrounds. 	<ul style="list-style-type: none"> • create repeating patterns using the stamps and/or copy tool • can use the ‘undo’ command 	Encourage children to use the ‘undo’ command to go back to a previous step if a colour or pattern is unsuccessful.
<ul style="list-style-type: none"> • technique: to alter the size of the brush tool 	<ul style="list-style-type: none"> ◆ Show children examples of Seurat’s work in images on the internet and on post cards. ◆ Discuss the work of Seurat and his use of dots. Demonstrate how to alter the size and pattern of the brush tool to produce a ‘pointillist’ effect. ◆ Ask children to recreate sketches from their sketchbooks on screen using a pointillist technique and/or create a picture of a hot air balloon in this style 	<ul style="list-style-type: none"> • create pictures using a variety of brush sizes and effects 	

LEARNING OBJECTIVES CHILDREN SHOULD LEARN	POSSIBLE TEACHING ACTIVITIES	LEARNING OUTCOMES CHILDREN	POINTS TO NOTE
<ul style="list-style-type: none"> • technique: to copy areas and re-size them 	<ul style="list-style-type: none"> ◆ Demonstrate how areas of the screen can be copied and re-sized. ◆ Show the class pictures of tropical fish. Ask children to create a fish tank by drawing a single fish then making multiple copies of different sizes. 	<ul style="list-style-type: none"> • select appropriate areas, copy and re-size them 	<p>Some children will be able to copy pictures but not re-size them.</p>
<ul style="list-style-type: none"> • technique: to use a range of visual effects, such as reflection or symmetry 	<ul style="list-style-type: none"> ◆ Discuss designs which use symmetry, <i>eg Islamic carpets and, specifically the layout of formal gardens in Tudor palaces</i>. Demonstrate how a paint program can create symmetrical patterns automatically. ◆ Ask children to produce their own designs for carpets or <i>formal Tudor gardens</i> using the symmetry tool. 	<ul style="list-style-type: none"> • create patterns using the symmetry tool 	
<ul style="list-style-type: none"> • key idea: that ICT can be used to recreate images made by hand • key idea: that a screen image can be a finished product • technique: to use 'save as' to keep drafts 	<ul style="list-style-type: none"> ◆ Ask children to create a number of black and white templates for stained-glass windows using felt pens or ink, possibly inspired by the work of Charles Rennie Mackintosh or from sketches of local church windows. Scan a number of sketches into the computer as a starting point for work on light and colour. Show the children how to use 'save as' to save drafts. ◆ Ask children to experiment with colours by flood filling the templates with various colours and ask them to use 'save as' to keep versions which work well. Discuss the quality of light created. 	<ul style="list-style-type: none"> • recognise that a screen image can be a finished product • save drafts which show the development of their design 	<p>Black outlines may need retouching to prevent the flood fill from leaking.</p> <p>Children's work could be incorporated into an electronic 'art gallery' as part of the school's home page on the Internet. This encourages children to see the version on screen as the final one.</p>

LEARNING OBJECTIVES CHILDREN SHOULD LEARN	POSSIBLE TEACHING ACTIVITIES	LEARNING OUTCOMES CHILDREN	POINTS TO NOTE
INTEGRATED TASK			
<ul style="list-style-type: none"> • to use the skills and techniques learnt to organise, reorganise and communicate ideas • to select suitable information and media and prepare it for processing using ICT 	<ul style="list-style-type: none"> ◆ Show the class a mixed-media collage, such as ‘Guitar’ by Pablo Picasso, and discuss some of the techniques used. Encourage children to find material that can be scanned, <i>eg from newspapers or magazines</i>. ◆ Ask children to use the various techniques learnt to incorporate the scanned images in order to create composite images, based on direct observation of musical instruments (e.g. violins and recorders as direct modern equivalents of Tudor instruments). Encourage them to focus on particular details, such as tuning pegs or keys. Each child could be given a different viewpoint. Remind them of the importance of saving drafts. ◆ Show children the work of Andy Warhol especially the “Marilyn Munro” prints which show the same image coloured in different ways ◆ Ask children to print out multiple copies of their work and use the print outs, together with other collected images, to make a mixed media collage. ◆ Ask the children to copy an image or part of an image they have produced, repeat it on the screen using copy, and colour it in different ways. 	<ul style="list-style-type: none"> • use a variety of materials, created on and away from the computer, and use them to make a final image 	<p>N.B. Copying of images produced in books, magazines and newspapers are normally copyright</p>