

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**



**Subject:** Purple Mash unit 5.5 Game Creator

**Key Concept/ Theme:** • To plan a game. • To design and create the game environment. • To design and create the game quest. • To finish and share the game. • To self and peer evaluate.

**Prior Learning links:**

	Cycle 1	Cycle 2
Year 1/2	Unit 1.1 Online Safety • General use of Purple Mash • Design: avatar creation • Paint Projects: use of the simple paint tools  Unit 2.6 Creating Pictures • 2Paint a Picture: art effects, collage effects	Unit 1.1 Online Safety • General use of Purple Mash • Design: avatar creation • Paint Projects: use of the simple paint tools  Unit 1.6 Animated Story Books • Animating images using built in effects in 2Create a Story • Concept of background (static) and foreground (can move).  Unit 2.7 Making Music • Digitally creating music and sound effects
Year 3/4		Unit 4.6 Animation • Create a stop motion animation using 2Animate • Use of sounds, backgrounds and effects
Year 5/6		

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

Key Vocabulary

**Animation**

Creating an illusion of movement.

**Computer game**

A game played using a computer, typically a video game.

**Customise**

Modify (something) to suit an individual or task.

**Evaluation**

The making of a judgement about the value of something.

**Image**

In this case, a picture displayed on the computer screen.

**Instructions**

Detailed information about how something should be done or operated.

**Interactive**

Responding to a user's input on a computer or device.

**Screenshot**

An image of the data displayed on the screen of a computer or mobile device.

**Texture**

High frequency detail or colour information on a computer-generated graphic.

**Perspective**

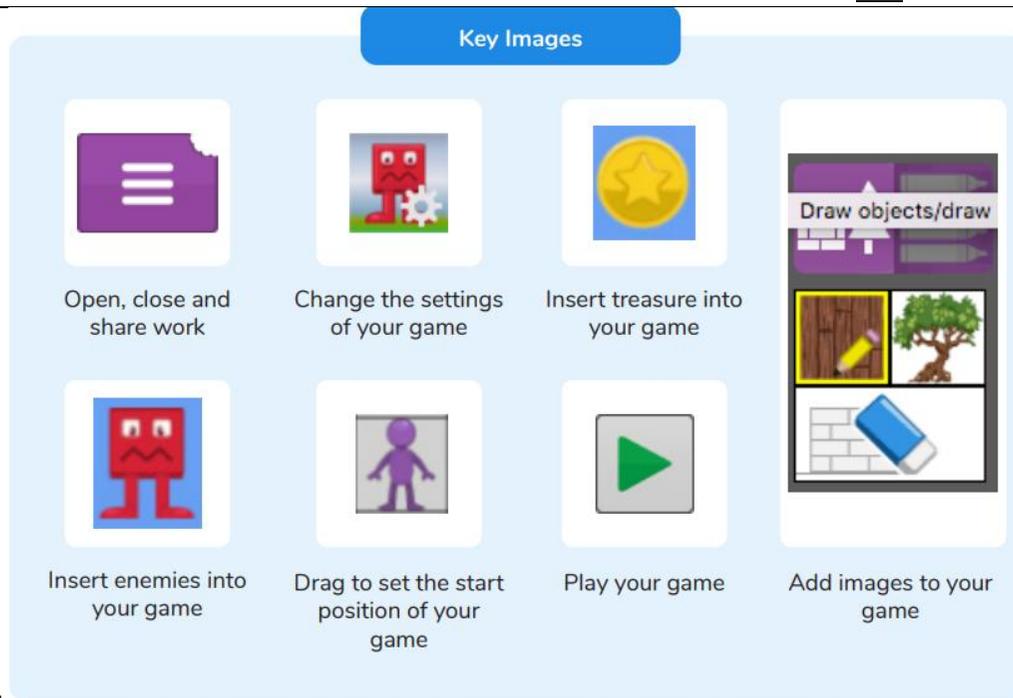
Representing three-dimensional objects on a two-dimensional surface to give the right impression of their height, width, depth, and position in relation to each other.

**Playability**

A measure of either the ease by which a video game may be played, or of the overall quality of its gameplay.

**Vocabulary:**

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**



**Key Images:**

**Resources needed for each lesson – 2dos to set.**

**Lesson 1:**

Unless otherwise stated, all resources can be found on the main unit 5.5 page. From here, click on the icon to set a resource as a 2Do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you do not lose this page.

- Computer Game Planner (to be set a 2Do for children). This will be added to throughout the four lessons. The file contains a 'Think about' box with cues to help the children fill in the relevant information. Each lesson, they will add detail as they develop their game. It should be set as a 2Do for the children with a hand-in date when the whole unit is due to be finished.

You can select the following objectives when setting the 2Dos to make future assessment easier:

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

Year:	Y5	▼
Subject:	Computing	▼
Strand:	IT	▼
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.		<input type="checkbox"/>
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		<input checked="" type="checkbox"/>

This can be printed with the 'Think about' box information, should you prefer to use it away from the computers. However, it does not include the functionality of the online activity, e.g., word banks, clipart and writing prompts.

- Tips for Taking Screenshots at the end of this unit. You might wish to print copies of this for the children to guide them in taking screenshots of their work to upload to the planning document.
- 2DIY 3D tool: This is found in the Tools area of Purple Mash. Note: there are two levels of complexity for 2DIY 3D, children should use the more complex 'My Game' mode unless children with individual needs would benefit from the simpler version.

Lesson 2

Unless otherwise stated, all resources can be found on the main unit 5.5 page. From here, click on the icon to set a resource as a 2Do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you do not lose this page.

- Planning leaflet from last week to continue.
- Tips for Taking Screenshots document at the end of this unit. You might wish to print copies of this for the children to guide them in taking screenshots of their work to upload to the planning document.
- 2DIY 3D tool: This is found in the Tools area of Purple Mash.

Lesson 3

- Planning leaflet from last week to continue.

Lesson 4

- Planning leaflet from last week to continue.

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

Lesson 5

Unless otherwise stated, all resources can be found on the main unit 5.5 page. From here, click on the icon to set a resource as a 2Do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you do not lose this page.

- Planning leaflet from last week to continue.
- Game Review activity set as a 2Do.
- Blank Slideshow creator from 2Publish Plus

1. **Deeper learning questions: Why do we need an information screen in a game? Should all games have lives?**

Unit **Reconnection:** Remind children of online safety rules. Go over previous words encountered in previous units.  
5.5

Lesson **LO:** • To Introduce the 2DIY 3D tool. • To begin planning a game.  
1

**Activity:** Go over new vocab for lesson

Introduce the program.

Introduce the activity. Bring the class back together and discuss the questions and what they have found out.

As a class, discuss a suitable theme for your class games; something linked to your current topic or a book that you are reading as a class is likely to spark lots of ideas. You might decide that children could choose different themes depending upon books that they are reading themselves or other ideas.

Remind children that games can have up to three levels and these levels do not have to have the same environment or the same baddies and treasure. Some children might want to expand beyond one level to add complexity to the story of their game and make each level progressively harder. For others, it might be better to concentrate on one, well designed, level. The lesson plans take you through the process with one level.

Click the icon on the slide to open the file to demonstrate. Bring the children back together and discuss some of their ideas.

Watch the video called 'Customizing the Game' on the 2DIY 3D page in Purple Mash or click on the link in the slide. Then, the children could decide upon some images or textures for the **ground, walls, and ceiling**, using the ready-made ones in 2DIY 3D or the Internet to find appropriate images. We will be continuing with this in the next lesson, so it does not have to be finalised yet.

Print the Tips for Taking Screenshots at the end of this unit if required.

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

	<p>Insert images of your chosen textures onto the front page of the leaflet. Your teacher will advise you on how to take screenshots. To upload saved images from a device, click on the green arrow in an image box of the design leaflet then locate the image file on your device and click Open. There are controls to rotate and zoom in on parts of an image on this screen. Then, when you are happy with the image, click 'Choose'.</p> <p>Go over vocab and success criteria.</p> <p><b>Extension: Think of a game you have played and write a list of ways you could make it better.</b></p>
2.  Unit 5.5  Lesson 2	<p><b>Deeper learning questions:</b> Is it alright to take images from an Internet search?</p> <p><b>Reconnection:</b> Remind children of online safety rules. Go over previous words encountered in previous units.</p> <p><b>LO:</b> • To design the game environment.</p> <p><b>Activity:</b> Go over new vocab for lesson</p> <p>Children will be using the 'My Game' mode to have access to the full functionality of 2DIY 3D.</p> <p>Is it alright to take images from an Internet search? Think back to the Online Safety units that you have completed. Credit sources for any images that you have used. This could be done in the instruction / title screen you will be creating at a later date. Discuss the correct format for doing this as a class.</p> <p>Shortly you will be adding elements to your game in 2DIY 3D. The next slides show you examples of these elements. As well as importing images from the Internet, you can draw images in Purple Mash and then import them into your game. This example uses 2Paint a Picture.</p> <p>Experiment to get the look that you want for the sky. Preview the game to check this</p> <p>Introduce all elements</p> <p>The children add in sky, ceiling, walls, ground etc to their game. Remember to save the game regularly as they go along so their work is not lost.</p> <p>The centre page of the leaflet has space for screenshots.</p>

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

	<p>The best way to do this will be determined by which platform you are using 2DIY 3D on. Ask your teacher for advice on this.</p> <p>Go over vocab and success criteria.</p> <p><b>Extension: Think about elements of a game - write a design for game.</b></p>
3. Unit 5.5 Lesson 3	<p><b>Deeper learning questions: Can you think of examples of quest items? What makes a good enemy?</b></p> <p><b>Reconnection:</b> Remind children of online safety rules. Go over previous words encountered in previous units.</p> <p><b>LO:</b> • To design the game quest to make it a playable game.</p> <p><b>Activity:</b> Go over new vocab for lesson</p> <p>Demonstrate. The children will have learnt what most of the buttons do from the last lesson.</p> <p>If children add images that they have downloaded, they will appear with a white background. Watch '<a href="#">How to get rid of white background</a>' in the video for details of how to do that.</p> <p>The children return to their devices and add in the quest items.</p> <p>Once the items have been added, children should complete the section of their leaflet called 'The Quest items'. The 'Think about' box gives some hints about what to include in this section.</p> <p>Children should return to their devices and add in the enemies.</p> <p>Once the items have been added, children should complete the section of their leaflet called 'The Baddies. The 'Think about' box gives some hints about what to include in this section.</p> <p>Go over vocab and success criteria.</p>

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

	<p><b>Extension: Add a maximum of five levels.</b></p> <p><b>To begin with, concentrate on one, well designed, level. For an extra challenge, use the levels to add complexity to the story of your game by making each level progressively harder.</b></p> <p><b>The levels could have different looks but a linked theme.</b></p>
Unit 5.5  Lesson 4	<p><b>Deeper learning questions: Why is it important for your game to have instructions? Why are QR codes useful?</b></p> <p><b>Reconnection:</b> Remind children of online safety rules. Go over previous words encountered in previous units.</p> <p><b>LO:</b> • To finish and share the game.</p> <p><b>Activity:</b> Go over new vocab for lesson</p> <p>Discuss the importance of including instructions and what these need to cover.</p> <p>Discuss how to plan the instructions.</p> <p>Children should then complete the instructions for their game. There is space on the planning leaflet for a screen print of the instruction screen.</p> <p>The easiest way to carry out peer evaluation is to use 2Blog to create a class blog where each child in the class has write access; they can then write a blog post and attach their game. Other children will be able to comment on the game on the blog post. Children can also share their game with others by creating a share link (to paste into email or a document) or submitting to a school display board. To do this, click on the Share button which is the globe then click on 'Link and QR Code'. Children should use one of these methods to create a link for their game and share it with at least one other child.</p> <p>The children choose a way to share their game with their friends.</p> <p>Insert the QR code onto the leaflet.</p> <p>Go over vocab and success criteria.</p>

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

	<p><b>Extension: The children continue to add in extra levels to their game.</b></p>
<p>Unit 5.5  Lesson 5</p>	<p><b>Deeper learning questions: Why is the reviewing process important? What makes good feedback?</b></p> <p><b>Reconnection:</b> Remind children of online safety rules. Go over previous words encountered in previous units.</p> <p><b>LO:</b> • To self- and peerevaluate.</p> <p><b>Activity:</b> Go over new vocab for lesson</p> <p>Children should evaluate someone else’s game using the categories from the leaflet or using the Game review activity file. They should send this feedback to the person whose game they reviewed. 2email should be used for this. Remind children of the need to be positive and considerate in their feedback.</p> <p>Children can then use the feedback to fill in the Evaluation section of their own Game Design Planner leaflet.</p> <p>Go over vocab and success criteria.</p> <p><b>Extension: Use the <a href="#">blank slideshow</a> template on 2Publish Plus in the tools section to create an advertisement for your game. Remember to include:</b>  <b>Screengrabs from exciting, key moments within the game.</b>  <b>Audio of how to play the game and the story behind the game.</b>  <b>Testimonials from classmates who have played the game and left feedback.</b>  <b>Remember to save your presentation as you go.</b>  <b>Play the presentation to audience to ‘sell’ your game.</b></p>
	<p><b>End of unit quiz &amp; reflect on gaps from the unit:</b></p> <p>Unit 5.5 Quiz – found on unit page on PM</p> <p>Questions:</p> <p>Match the definitions to the words.</p> <p>Which of these games were made with 2DIY 3D?</p>

**Pioneer Federation**  
**Medium term plan**  
**Cycle 1, Term 4**  
**ICT**

Label elements of the picture

What should you do if you are using images or sounds found online in your game?

Match the design requirement to the solution.

How can you include images from the game in the documentation?

Choose the best answer.

Label elements of a game

Which of these could happen when the player gets caught by a baddie?

**End Points:**

What is the 2DIY3D tool on Purple Mash? 2DIY 3D allows users to create a playing area, such as a maze, in 2D and then turn it into a 3D computer game. The aim is to avoid the 'baddies' and collect 'treasure'.

What makes a good computer game? A good game designer gives the player continuous challenges in a visually stimulating environment, each of which leads to another challenge, to keep the game challenging and fun.

Why is it important to continually evaluate your game? Evaluating your game as you make it allows you to think about ways in which it can be improved. Evaluation may also involve the views of other people who play your game.

**Evaluation:** What have the end of unit quizzes, pupil self-reflections and termly work told you about what the children can remember and recall? What are the gaps? Ensure that the areas that need further reinforcement are documented in the next subject unit MTP. **Plan in time to revisit gaps within units, determined by the quizzes.**

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