

# Time to Scratch

Desirable Features: Exploring Programming  
Optional: Presentation & Online Collaboration

## Task Description

This is a generic ICT task on Exploring Programming at Levels 3, 4 and 5. In this task, pupils are required to create a Scratch project based on a topic they are doing in class. Pupils must show awareness of audience.

The Pupil Notes are set out in three parts.

Part 1 of the task has been designed for pupils working at Level 3.

Part 2 has been designed for pupils working at Level 4, and Part 3 has been designed for pupils working at Level 5.

## Requirements for UICT

This task focuses on the following aspects of UICT across the curriculum which have been highlighted in **bold**.

Optional: Although Exchange and Exhibit have not been highlighted if pupils are involved in the online collaborative aspect of Scratch they will also be covering Exchange.

### Explore

- access, select, interpret and research information from safe and reliable sources;
- **investigate, make predictions and solve problems through interaction with digital tools.**

### Express

- **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

- communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally.

### Evaluate

- **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

- **manage and present their stored work and showcase their learning across the curriculum, using ICT safely and responsibly.**

Although this task is based on the Desirable Feature ‘Exploring Programming’ it the potential to cover the Desirable Features of Presentation and Online Collaboration.

This task also provides teachers with the opportunity to develop pupils’ skills in Using Maths and Communication.

## Areas of Learning

This task supports Mathematics and Numeracy . In addition, depending on the context chosen by the teacher, this task has the potential to support one or more of these Areas of Learning:

<b>The Arts</b>	✓
<b>Language and Literacy</b>	✓
<b>Mathematics and Numeracy</b>	✓
<b>Personal Development and Mutual Understanding</b>	✓
Physical Education	
<b>The World Around Us</b>	✓

Please Note: For assessment purposes, only the ‘E’s that are covered at the level(s) stated on the task have been bolded.

Depending on how the task is approached, it may touch on elements of the unbolded ‘E’s, although not necessarily at the level(s) stated.

# Time to Scratch

## Thinking Skills and Personal Capabilities

This assessment task also provides pupils with the opportunity to demonstrate one or more of the following aspects of Thinking Skills and Personal Capabilities:

Managing Information

Thinking, Problem-Solving and Decision-Making

Being Creative

Working with Others

Self-Management

## Prior Knowledge/Experience

Depending on the level at which they are working, pupils should have some experience in some of the following:

- planning and creating a Scratch project; (Levels 3, 4 & 5)
- using a range of commands within Scratch functions; (Level 3, 4 & 5)
- editing and controlling Scratch sprites and backgrounds; (Levels 3)
- importing sounds and images; (Level 3)
- displaying and tagging a Scratch project; (Levels 4 & 5) and
- using a wider range of Scratch functions; (Level 5).

## Resources

CCEA 'How to' .. Guide on Scratch

CCEA Case Studies available on the CCEA ICT Accreditation website

Access to the internet.

Scratch software downloaded

The Scratch Resource Cards A, B, C and D are very useful for teaching pupils about Scratch. These are available for downloading on the <http://clounagh.org/>

## Managing the Task

Pupils should be given opportunities to:

### Plan

After group discussion pupils should plan their Scratch project.

Under teacher supervision they can view and interact with existing Scratch projects on the Scratch website.

### Do

Pupils should work individually or in pairs to create their Scratch Project.

### Review

Pupils present and talk about their own and others' Scratch Project, reflecting on how it was created and the results achieved. They discuss any problems they faced. Pupils identify any improvements that might be made and amend their work if necessary. Pupils talk about how they planned and approached their work, discussing what they have learned through the process and how they might change the process next time. Pupils may decide to publish and tag their Scratch projects on the Scratch website.

## Assessing Pupils' Responses to the Task

The first column of the Assessment Criteria Grid sets, in bold, the Requirements for UICT that are covered in this task. Alongside this are the Levels of Progression (those related to the task are in bold) and the UICT Desirable Features for Exploring Programming and Progression in Scratch. It also has the potential to cover the Desirable Features of Presentation and Online Collaboration. These Desirable Features have been produced as guidance for teachers to consider

when observing a pupil and assigning a level to a piece of work. When coming to a holistic judgement of the pupil's level of UICT competence, teachers should ensure that these Desirable Features are used in conjunction with the UICT Levels of Progression.

**This task may provide opportunities for pupils to work collaboratively online (Exchange). Teachers should include this, where possible, as set out in the Desirable Features.**

Assessment Criteria Grid			
UICT Requirements	Level 3	Level 4	Level 5
<b>Explore</b> <ul style="list-style-type: none"> <li>access, select, interpret and research information from safe and reliable sources;</li> <li><b>investigate, make predictions and solve problems through interaction with digital tools.</b></li> </ul>	Pupils can: <ul style="list-style-type: none"> <li>research, select, edit and use information from given digital sources (explore);</li> <li><b>carry out and edit a series of instructions, make predictions and solve problems using a digital device or environment (explore);</b></li> </ul>	Pupils can: <ul style="list-style-type: none"> <li>research, select, edit and use assets from a range of digital sources (explore);</li> <li><b>investigate and solve problems in a digital environment (explore);</b></li> </ul>	Pupils can: <ul style="list-style-type: none"> <li>research, select, edit, use and evaluate assets from a range of digital sources (explore);</li> <li><b>investigate and solve problems in a range of digital environments (explore);</b></li> </ul>
<b>Express</b> <ul style="list-style-type: none"> <li><b>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.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>communicate and develop ideas by creating and editing text and/or data onscreen – combining this with an appropriate selection of images and/or sounds (express);</b></li> </ul>	<ul style="list-style-type: none"> <li><b>process found or self-produced assets, including text, data, sound, still or moving images, and combine these to create, present and communicate their work, showing an awareness of audience and purpose (express);</b></li> </ul>	<ul style="list-style-type: none"> <li><b>process found and self-produced assets, integrating text, data, sound, still and moving images to create, present and communicate their work, demonstrating a clear understanding of audience and purpose (express);</b></li> </ul>
<b>Exchange</b> <ul style="list-style-type: none"> <li>communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally.</li> </ul>	<ul style="list-style-type: none"> <li>understand that digital methods can be used to communicate and make a contribution to a supervised online activity (exchange);</li> </ul>	<ul style="list-style-type: none"> <li>use contemporary digital methods to communicate, exchange and participate in a range of supervised online activities (exchange);</li> </ul>	<ul style="list-style-type: none"> <li>use a range of contemporary digital methods to communicate, exchange and share their work collaborating online with peers (exchange);</li> </ul>
<b>Evaluate</b> <ul style="list-style-type: none"> <li><b>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.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>make modifications to improve their work (evaluate);</b> and</li> </ul>	<ul style="list-style-type: none"> <li><b>use appropriate ICT tools and features to improve work (evaluate);</b> and</li> </ul>	<ul style="list-style-type: none"> <li><b>use appropriate ICT tools and features to carry out ongoing improvements and reflect on process and outcome (evaluate);</b> and</li> </ul>
<b>Exhibit</b> <ul style="list-style-type: none"> <li><b>manage and present their stored work and showcase their learning across the curriculum, using ICT safely and responsibly.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>save using file names and select work to showcase learning digitally (exhibit).</b></li> </ul>	<ul style="list-style-type: none"> <li><b>select, organise, store and retrieve their work to showcase learning digitally in a personalised area (exhibit).</b></li> </ul>	<ul style="list-style-type: none"> <li><b>organise, store and maintain their work within a personalised area to showcase learning across the curriculum (exhibit).</b></li> </ul>

Assessment Criteria Grid

UICT Requirements	Desirable Features - Level 3 (Exploring Programming)	Desirable Features - Level 4 (Exploring Programming)	Desirable Features - Level 5 (Exploring Programming)
<p><b>Explore</b></p> <ul style="list-style-type: none"> <li>access, select, interpret and research information from safe and reliable sources;</li> <li><b>investigate, make predictions and solve problems through interaction with digital tools.</b></li> </ul>	<p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>input simple sequences of commands (explore);</li> <li>use more efficient commands such as repeat (explore);</li> <li>work collaboratively online if appropriate (exchange);</li> <li>talk about how and why they chose commands and suggest modifications (evaluate); and</li> </ul>	<p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>input more complex sequences of commands (explore);</li> <li>build and edit simple procedures (explore); and</li> <li>discuss how they could improve their commands and procedures and make any necessary modifications (evaluate).</li> </ul>	<p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>build and edit more complex procedures (explore);</li> <li>nestle procedures within procedures (explore);</li> <li>consider their procedures and use trial and error to refine these as needed (evaluate); and</li> <li>reflect on what might they still might do to make procedures most efficient (evaluate).</li> </ul>
<p><b>Express</b></p> <ul style="list-style-type: none"> <li><b>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.</b></li> </ul>	<p><b>Progression in Scratch</b></p> <p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>plan and create a simple Scratch project;</li> </ul>	<p><b>Progression in Scratch</b></p> <p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>use a storyboard to plan a Scratch project;</li> </ul>	<p><b>Progression in Scratch</b></p> <p>Typically the pupil can:</p> <ul style="list-style-type: none"> <li>plan and create a Scratch project demonstrating a clear understanding of audience and purpose;</li> </ul>
<p><b>Exchange</b></p> <ul style="list-style-type: none"> <li>communicate safely and responsibly using a range of contemporary digital methods and tools, exchanging, sharing, collaborating and developing ideas digitally.</li> </ul>	<ul style="list-style-type: none"> <li>change the appearance of their own or existing sprite using different costumes;</li> <li>use more complex commands to make your sprite perform;</li> <li>use more than one background and sprite;</li> <li>Create a script for their backgrounds by using a range of Scratch functions for example, control and looks ;</li> <li>import and use sounds if appropriate;</li> <li>import, if appropriate, assets such as backgrounds and sprites and edit to use in a project;</li> </ul>	<ul style="list-style-type: none"> <li>create and edit a Scratch project showing an awareness of audience and purpose;</li> <li>make two or more sprites interact;</li> <li>use a simple 'broadcast/ when I receive' command within a script;</li> <li>select and use a range of commands within the Control, Looks, Motion and Sound functions;</li> <li>display and tag a Scratch project on the Scratch website and comment on other published projects;</li> <li>discuss how they could improve their your work and make any necessary improvements; and</li> </ul>	<ul style="list-style-type: none"> <li>change the appearance of sprites/backgrounds using more than one 'broadcast and receive' or use an embedded broadcast/receive command;</li> <li>include two of the following functions in a project: Sensing, Operators and Variables;</li> <li>evaluate and reflect on what they did; and</li> <li>save and maintain their work.</li> </ul>
<p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li><b>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.</b></li> </ul>	<ul style="list-style-type: none"> <li>make modifications to improve their work; and</li> <li>save their work with a file name.</li> </ul>	<ul style="list-style-type: none"> <li>save and retrieve their work.</li> </ul>	
<p><b>Exhibit</b></p> <ul style="list-style-type: none"> <li><b>manage and present their stored work and showcase their learning across the curriculum, using ICT safely and responsibly.</b></li> </ul>			

# Time to Scratch

## Part 1

You are going to create a simple Scratch project based on a topic you have been doing in class. Take a look at other Scratch projects on the Scratch website with your teacher and discuss them.

Plan and create your project. You will need to:

- choose your backgrounds and sprites, you may wish to import, sprites and backgrounds to use in your project;
- change the appearance of your sprites by using different costumes;
- use Scratch functions such as control and looks to create a script to make your sprite perform;
- import and use sounds if you wish;
- save your project;
- display and tag your Scratch project on the Scratch website.



# Time to Scratch

## Part 2

You are going to create a Scratch project based on a topic you have been doing in class. Take a look at other Scratch projects on the Scratch website with your teacher, discuss them and add an online comment to at least one of the projects.

Use a storyboard to plan and create your project. Think about the audience it is for.

You will need to:

- make two or more sprites interact;
- use a range of commands within the Control, Looks, Motion and Sound functions;
- use a simple 'broadcast/ when I receive' command within a script;
- save your Scratch project and display and tag it on the Scratch website;
- comment on other published projects;
- discuss your work with someone else and decide if you need to make any improvements.



# Time to Scratch

## Part 3

You are going to create a Scratch project based on a topic you have been doing in class. Take a look at other Scratch projects on the Scratch website with your teacher and make online comments on them.

Use a storyboard to plan and create your project making sure that it suits the audience it is for.

You will need to:

- use a range of commands within the Control, Looks, Motion and Sound functions.
- change the appearance of sprites/backgrounds by using more than one 'broadcast and receive' or by using an embedded broadcast/receive command.
- include two of the following functions in your project: Sensing, Operators, Variables.
- display and tag your saved Scratch project on the Scratch website and comment on other published projects.
- consider any comments made on your project and decide if you need to make any improvements.
- reflect on what you did and write an account explaining how you carried out the task and identify any problems you faced.

