

Rendlesham Computing Curriculum

Inventions 23/24

Key Stage 1 Year 1 and 2

[How did you get there?](#)

Moving a robot

[What makes a good photograph?](#)

Digital Photography

[Lesson Organiser and Vocabulary](#)

[Lesson Organiser and Vocabulary](#)

[National curriculum links and Education for a Connected World links](#)

[National curriculum links](#)

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Recognise common uses of information technology beyond school

Computing

- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

[Further national curriculum links](#)

Art and design

- To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space

[Education for a Connected World links](#)

- To identify that some images are not real (fake)

Resources, Websites and support

<https://beebot.terrapinlogo.com/>

Tablets Camera

Progression

As this is a Year 1 unit, no prior knowledge is assumed.

This unit progresses learners' knowledge and understanding of giving and following instructions. It moves from giving instructions to each other to giving instructions to a robot by programming it.

This unit begins the learners' understanding of how photos are captured and can be manipulated for different purposes. Following this unit, learners will develop their photo editing skills in Year 4.

Please see the learning graph for this unit for more information about progression.

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Lower Key Stage 2 – Year 3 and 4

[This Question needs to change – The LINK still works ok](#)

Creating media - Stop-frame animation

[When should you use desktop publishing?](#)

Desktop Publishing

[Lesson Organiser and Vocabulary](#)

[Lesson Organiser and Vocabulary](#)

[National curriculum links and Education for a Connected World links](#)

Computing

- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

[Further national curriculum links](#)

Literacy links

- Pupils should be taught to: draft and write by: in narratives, creating settings, characters and plot
- Pupils should be taught to: proof-read for spelling and punctuation errors

[Education for a Connected World links](#)

Managing online information

- I can use key phrases in search engines.
- I can use search technologies effectively.

Copyright and ownership

- I can explain why copying someone else's work from the internet without permission can cause problems.
- I can give examples of what those problems might be.
- When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.
- I can give some simple examples.
- I can give examples of content that is permitted to be reused.
- I can demonstrate the use of search tools to find and access online content which can be reused by others.

Computing

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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

[English programmes of study links](#)

- Pupils should be taught to draft and write by: in non-narrative material, using simple organisational devices [for example, headings and subheadings]
- Evaluate and edit by assessing the effectiveness of their own and others' writing and suggesting improvements
- Proofread for spelling and punctuation errors

[Education for a Connected World links](#)

Managing online information

- I can use key phrases in search engines
- I can use search technologies effectively

Copyright and ownership

- When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it
- I can demonstrate the use of search tools to find and access online content which can be reused by others

Resources, Websites and support

<https://cloudstopmotion.com/en-GB>

<https://clideo.com/stop-motion>

<https://flicier.com/create/stop-motion-maker>

<https://www.i2e.com/jit5>

The suggested application for this unit is Canva <https://www.canva.com/> . Canva is web based and can be used on tablets, desktops and laptops. Mac, Windows and Android apps are available: <https://www.canva.com/download/windows/> .

Students below the age of 13 require parental consent to use Canva for Education. For further details and to download a sample consent template visit:

<https://www.canva.com/help/invite-teachers-and-students/>

To use Canva as a teacher, you will require a Canva for Education account. To learn more and sign up for a FREE Canva teacher account visit: <https://www.canva.com/help/about-canva-for-education/>.

NB: Due to Canva's teacher verification process we would recommend signing up prior to teaching the unit to allow time for verification of your teaching status to take place.

Once you have been granted access to Canva you can follow their guide on inviting students and teachers to your class by visiting: <https://www.canva.com/help/invite-teachers-and-students/>

Progression

This unit progresses students' knowledge and understanding of using digital devices to create media, exploring how they can create stop-frame animations. Following this unit, learners will further develop their video editing skills in Year 5.

This unit progresses learners' knowledge and understanding of using digital devices to combine text and images building on work from the following units; [Digital Writing Year 1](#), [Digital painting Year 1](#), and [Digital Photography Year 2](#)

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Upper Key Stage 2 – Year 5 and 6

[What impact does change have?](#)

Variables in games

[Paper or Screen?](#)

Digital literacy - Making eBook for Younger children.
QR code creator for these.

[Lesson Organiser and Vocabulary](#)

[National curriculum links
and Education for a Connected World links](#)

[National curriculum links](#)

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- 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

Computing – KS2

- 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
- Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

[Writing – composition and Writing - vocabulary, grammar and punctuation](#)

[Education for a Connected World links](#)

Strand

- I can describe strategies for keeping my personal information private, depending on context

Resources, Websites and support

We recommend the use of teacher accounts in Scratch to help with assessment throughout this unit. For guidance on setting up teacher accounts, please [visit the Scratch website](https://scratch.mit.edu/educators/faq) (scratch.mit.edu/educators/faq).

Keychain – Extra Resources/Lessons

https://docs.google.com/presentation/d/e/2PACX-1vSHn-RnmDie0-hUkqK_EX_r3jldyNJZSwsFaeLuhg6UwpzFFyp5gZK0eFvys1vzYBZ6T6rd1_Wvjay/pub?start=false&loop=false&delayms=3000&slide=id.g6b12b5bfb0_0_191

<https://www.qr-code-generator.com/>

Progression

This unit assumes that learners have some prior experience of programming in Scratch. Specifically, they should be familiar with the programming constructs of sequence, repetition, and selection. These constructs are covered in the Year 3, 4, and 5 National Centre for Computing Education programming units respectively. Each year group includes at least one unit that focuses on Scratch.

