Year 1 – Creating media – Digital writing

Unit introduction

Learners will develop their understanding of the various aspects of using a computer to create and manipulate text. They will become more familiar with using a keyboard and mouse to enter and remove text. Learners will also consider how to change the look of their text, and will be able to justify their reasoning in making these changes. Finally, learners will consider the differences between using a computer to create text, and writing text on paper. They will be able to explain which method they prefer and explain their reasoning for choosing this.

Software and Hardware requirements

This unit requires the use word processing software. Pupils will be encouraged to familiarise themselves with keys on the keyboard and will learn to type and edit text.

If you've adapted this unit to better suit your school, please share your adapted resources with fellow teachers in the STEM community. Alternatively, if this unit isn't quite right for your school, why not see if an adapted version which better suits has already been shared?

Overview of lessons

Lesson	Brief overview	Learning objectives
1 Exploring the keyboard	Learners will familiarise themselves with a word processor and think about how they might use this application in the future. The learners will also identify and find keys, before adding text to their page by pressing keys on a keyboard.	To use a computer to write • I can open a word processor • I can recognise keys on a keyboard • I can identify and find keys on a keyboard
2 Adding and removing text	Learners will continue to familiarise themselves with word processors and how they can interact with the computer using a keyboard. The learners will focus on adding text and will explore more of the keys found on a keyboard. Finally, they will begin to use the Backspace key to remove text from the computer.	To add and remove text on a computer • I can enter text into a computer • I can use letter, number, and Space keys • I can use Backspace to remove text
3 Exploring the toolbar	Learners will begin to explore the different tools that can be used in word processors to change the look of the text. Learners will use the Caps Lock key to add capital letters to their writing and will begin thinking about how to use this successfully. Learners will match simple descriptions to the related keys. Finally, learners will begin exploring the different buttons available on the toolbar in more detail, and use these to change their own text.	To identify that the look of text can be changed on a computer • I can type capital letters • I can explain what the keys that I have already learnt about do • I can identify the toolbar and use bold, italic, and underline
4 Making changes to text	Learners will begin to understand when it is best to change the look of their text and which tool will achieve the most appropriate outcome. The learners will begin to use their mouse cursor to select text to enable them to make more efficient	To make careful choices when changing text

	changes. They will explore the different fonts available to them and change the font for their lost toy poster.	• I can select a word by double-clicking • I can select all of the text by clicking and dragging • I can change the font
5 Explaining my choices	Learners will begin to justify their use of certain tools when changing text. The learners will decide whether the changes that they have made have improved their writing and will begin to use 'Undo' to remove changes. They will begin to consolidate their ability to select text using the cursor, through double-clicking and clicking and dragging. The learners will be able to explain what tool from the toolbar they have used to change their writing.	To explain why I used the tools that I chose • I can say what tool I used to change the text • I can decide if my changes have improved my writing • I can use 'Undo' to remove changes
6 Pencil or keyboard?	Learners will make comparisons between using a computer for writing and writing on paper. The learners will discuss how the two methods are the same and different and think of examples to explain this. They will demonstrate making changes to writing using a computer to compare the two methods. Finally, the learners will begin to explain which they like best and think about which method would be the best method to use in different situations.	To compare typing on a computer to writing on paper • I can make changes to text on a computer • I can explain the differences between typing and writing • I can say why I prefer typing or writing

Subject knowledge and CPD opportunities

You will need to be familiar with the word processing software used in your school (Google Docs, Microsoft Word, Pages from Apple, or other) and the layout of the computer keyboard. In this unit, the key skills covered are adding and removing text; using basic formatting tools such as bold, italic, and underline; using click and drag to select text; and changing the font of text.

You may also wish to use unplugged activities to enhance pupils' familiarity with the keyboard. All resources are editable so can be altered to suite the word processing software you wish to use.

Continual Professional Development
Enhance your subject knowledge to teach this unit through the following free CPD:

- **Getting started in Year 1**
- **Introduction to primary computing**

Teach primary computing certificate
To further enhance your subject knowledge, enrol on the teach primary computing certificate. This will support you to develop your knowledge and skills in primary computing and gain the confidence to teach great lessons, all whilst earning a nationally recognised certificate!

Progression

This unit progresses the learners' knowledge and understanding of using computers to create and manipulate digital content, focussing on using a word processor. The learners will develop their ability to find and use the keys on a keyboard in order to create digital content. The learners are then introduced to manipulating the resulting text, making cosmetic changes, and justifying their reason for making these changes. Following this unit, learners will further develop their digital writing skills in the Year 3 – 'Desktop publishing' unit and the Year 6 – 'Web page development' unit.

Common misconceptions

Many pupils will have had no experience of word processing, but those who have are more likely to have seen it on a mobile device/tablet with a high degree of automation. For example, they may have seen parents using predictive text on a mobile device. They may expect this to happen when they are word processing on a computer. Alongside this, there may be some confusion around uppercase/lowercase letters, as the keys on a keyboard are uppercase but the letter which shows on screen is lower case. If this is becoming a problem, you can purchase lower case keyboards, or stickers which convert keyboards from upper case to lower case.

Curriculum links

Computing

- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- 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.

English – writing (Y1)

Write sentences by:

- saying out loud what they are going to write about
- composing a sentence orally before writing it
- sequencing sentences to form short narratives
- e-reading what they have written to check that it makes sense

Assessment

Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

Summative assessment

Please see the assessment rubric document for this unit. The rubric can be used to assess learning and highlights whether the pupil is approaching (emerging), achieving (expected), or exceeding the expectations in this unit.

Attribution statement

This resource was created by Raspberry Pi Foundation and updated by STEM Learning for the National Centre for Computing Education.

Year 2 – Making music

Unit introduction

In this unit, learners will listen to a variety of pieces of music and consider how music can make them think and feel. Learners will compare creating music digitally and non-digitally. Learners will look at patterns and purposefully create music.

Software and Hardware requirements

In this unit, learners will be using a computer to create music using Chrome Music Lab. To save work in Chrome Music Labs, learners need to save the link to their creation, for example by copying and pasting it into a word document. Learners may need some support with this.

If you've adapted this unit to better suit your school, please share your adapted resources with fellow teachers in the STEM community. Alternatively, if this unit isn't quite right for your school, why not see if an adapted version which better suits has already been shared?

Overview of lessons

Lesson	Brief overview	Learning objectives
1 How music makes us feel	In this lesson learners will listen to and compare two pieces of music from *The Planets* by Gustav Holst. They will then use a musical description word bank to describe how this music generates emotions, i.e. how it makes them feel.	To say how music can make us feel • I can identify simple differences in pieces of music • I can describe music using adjectives

		• I can say what I do and don't like about a piece of music
2 Rhythms and patterns	In this lesson, learners will explore **rhythm**. They will create patterns and use those patterns as rhythms. They will use untuned percussion instruments and computers to hear the different rhythm patterns that they create.	To identify that there are patterns in music • I can create a rhythm pattern • I can play an instrument following a rhythm pattern • I can explain that music is created and played by humans
3 How music can be used	During this lesson, learners will explore how music can be used in different ways to express emotions and to trigger their imaginations. They will experiment with the pitch of notes to create their own piece of music, which they will then associate with a physical object — in this case, an animal.	To experiment with sound using a computer • I can connect images with sounds • I can use a computer to experiment with pitch • I can relate an idea to a piece of music
4 Notes and tempo	In this lesson, learners will develop their understanding of music. They will use a computer to create and refine musical patterns.	To use a computer to create a musical pattern • I can identify that music is a sequence of notes • I can explain how my music can be played in different ways • I can refine my musical pattern on a computer
5 Creating digital music	In this lesson, learners will choose an animal and create a piece of music using the animal as inspiration. They will think about their animal moving and create a	To create music for a purpose

	rhythm pattern from that. Once they have defined a rhythm, they will create a musical pattern (melody) to go with it.	• I can create a rhythm which represents an animal I've chosen • I can create my animal's rhythm on a computer • I can add a sequence of notes to my rhythm
6 Reviewing and editing music	In this lesson, learners will retrieve and review their work. They will spend time making improvements and then share their work with the class.	To review and refine our computer work • I can review my work • I can explain how I changed my work • I can listen to music and describe how it makes me feel

Subject knowledge and CPD opportunities

- You should be familiar with *The Planets* by Gustav Holst:
  - BBC Ten Pieces (includes video recordings of the suite and music/digital art lesson plan ideas): www.bbc.co.uk/programmes/articles/14ZjT5yjnKQRdKVsqrLzk1x/mars-from-the-planets-by-gustav-holst
  - Gustav Holst's *The Planets* : a guide – Classic FM: www.classicfm.com/composers/holst/pictures/holsts-planets-guide
  - Learning to Listen: Gustav Holst's *The Planets* – YourClassical: www.yourclassical.org/story/2014/02/10/gustav-holst-the-planets-on-learning-to-listen
- You should also be familiar with musical terminology:
  - BBC: www.bbc.co.uk/bitesize/subjects/zwxhfg8
  - BBC Bitesize video (pulse and rhythm): www.bbc.co.uk/bitesize/clips/zmqn34j
- You should be familiar with Chrome Music Lab (musiclab.chromeexperiments.com/About), including:
  - The Song Maker tool (musiclab.chromeexperiments.com/Song-Maker)
  - Saving and opening work in Chrome Music Lab

Continuing professional development opportunities

Enhance your subject knowledge to teach this unit through the following free CPD:

- **Getting started in Year 2**
- **Introduction to primary computing**

Teach primary computing certificate

To further enhance your subject knowledge, enrol on the teach primary computing certificate. This will support you to develop your knowledge and skills in primary computing and gain the confidence to teach great lessons, all whilst earning a nationally recognised certificate!

Progression

Learners should have experience of making choices on a tablet/computer, and they should be able to navigate within an application. Learners should also have some experience of patterns.

This unit progresses students' knowledge through listening to music and considering how music can affect how we think and feel. Learners will then purposefully create rhythm patterns and music.

Common misconceptions

Pupils may express the misconception that the computer is 'making' the music during this unit. The computer is making the sounds, but the pupils composed the music. There was still human involvement. This is important as it reminds pupils that even when creating media using a digital device, there is still an element of creativity.

Curriculum links

Computing national curriculum links

- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- 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

Music national curriculum links

- Play tuned and untuned instruments musically
- Listen with concentration and understanding to a range of high-quality live and recorded music
- Experiment with, create, select, and combine sounds using the interrelated dimensions of music

Assessment

Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

Summative assessment

Please see the assessment rubric document for this unit. The rubric can be used to assess learning and highlights whether the pupil is approaching (emerging), achieving (expected), or exceeding the expectations in this unit.

Resources are updated regularly — the latest version is available at: ncce.io/tcc.

Attribution statement