



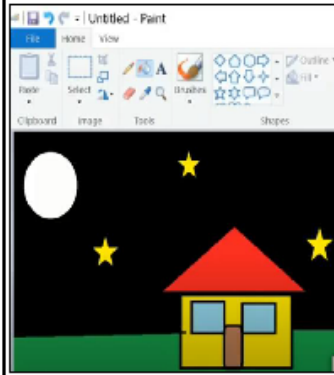
# COMPUTING: CREATING MEDIA

## KNOWLEDGE ORGANISER

Y1




### Overview



#### Digital Painting

- We can use digital devices to help us to draw and paint pictures.
- Some of the programs that we can use to do this are Microsoft Paint, Paintz and Sketches (for iOS).
- When we use paint programs, we can use tools to create different effects.
- We can draw in different ways, using freehand, lines and shapes in our drawings.
- We can also change sizes and colours for effect.

### Simple Tools

- The buttons at the top/side of the page are called tools, and they all have different jobs.
- By clicking on a tool (with the left button on our mouse) we can select to use it. 



This is the pencil tool. It draws freehand. As we click and hold the left mouse button, it draws on the page. As we hold and move the mouse, the pencil follows on the page!



This is the paintbrush tool. It works freehand, in much the same way as the pencil does. However, we can choose a number of different colours (by clicking on them) to paint with!



The eraser tool lets us rub out parts of our drawing when we have made a mistake. It works by clicking and holding the left mouse button over the areas to erase.



The undo tool reverses the last thing that you did. If you make a mistake, the undo tool can help you to get your drawing back to how it was beforehand!

### More Complex Tools



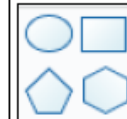
This is the fill tool. It let us fill a shape with a colour of our choice. Be careful though, if the shape has any gaps in it, the fill tool will colour everything else!



This is the spray-paint tool. When you hold down the left button on the mouse, it is like you are spraying a can of spray-paint. With this tool, it is more difficult to colour neatly.



The line tools are useful when we need to draw a line more neatly than we can do with freehand. You can select the start and end points of your line, and choose if you want it to be straight or curvy.



The shape tools draw perfectly formed shapes! There are many different shapes to choose from. As we click and drag using the left mouse button, we make the shape bigger and smaller.



When we want to save our painting, we should click on this icon. The first time that we save, we need to choose a file name and a location (folder) to save it in.

### Making Careful Choices



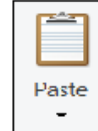
Be clicking on this icon, we are able to choose the size of the lines that we draw with.

We can choose thick, bold lines, or thin, feinter lines for effect.

These tools mean that we don't have to draw the same things over and over again if we need to repeat them.

The copy tool makes a copy of the line, shape, drawing features that are selected. By pressing paste, the copy will then appear on the page.

The cut tool also makes a copy of the line, shape, or drawing, but removes the original. The paste option places the copy in the new location.



### Important Vocabulary

Paint Program

Tool

Paintbrush

Erase

Fill

Undo

Click

Drag

Save

icon



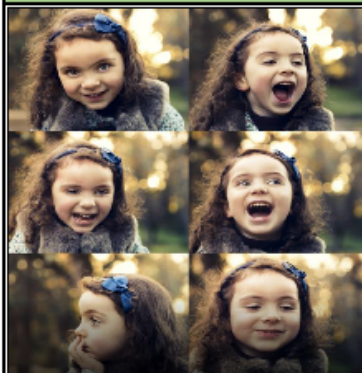
# COMPUTING: CREATING MEDIA

## KNOWLEDGE ORGANISER

Y2



### Overview



#### Digital Photography

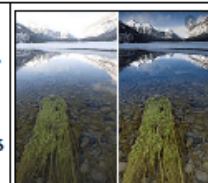
- We can use digital devices to help us to take and edit photographs.
- Many different devices can be used to take photographs, for example digital cameras, phones, tablets and webcams.
- We can also use lots of different apps and programs to edit and improve photos, for example Photoshop, Luminar and Pixlr.
- We should understand the not all photographs that we see are real – they may have been edited.

### Editing Techniques

Editing is when we add, change and remove things to get the result that we want.  
Many things can be edited in photographs to create different effects.



Photograph editing programs often have filters. These can change the colours in a photograph. Different colours can give us different feelings.



You can also change the contrast of a photograph. This can make the subjects become clearer or more blurry.



When the lighting of the photograph is not quite right, we can change the brightness of the photograph.



There are features that we can add or remove from the photograph whilst editing. E.g. removing red eyes.



When we want to save our edit, we should click on this icon or the 'save' button. The first time, we need to choose a file name and a location (folder) to save it in.

### Taking Photographs

Photography is a way of making a picture using a camera.

-There are lots of different photography devices (things that we can take photographs on).

e.g. smartphones, digital cameras and tablets.



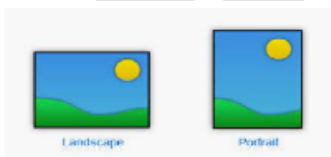
-There are also lots of different subjects we can take photos of: e.g. a selfie, an action shot, or a beautiful scene.



#### How to take a photograph

1. Hold the device firmly with both hands
2. Point the camera at the subject.
3. Look at the viewing screen.
4. Move the device to get the shot that you want.
5. Press the capture button.

Choose landscape or portrait.



### Real or Edited?

-There are lots of different ways that images can be changed. Sometimes it is hard to tell whether a photograph is real or has been changed.

-The software for editing photographs is becoming better, and people are getting more skilled at using it.

-People may change a photograph to make it look as though it is real, but in fact it is edited

-They may do this to try and advertise a product or present something in a different way. Do not always believe what you see!



### Important Vocabulary

Photography

Editing

Software

Digital

Portrait

Landscape

Scene

Subject

Lighting

Colour



# COMPUTING: CREATING MEDIA

## KNOWLEDGE ORGANISER

V3



### Overview



#### Animation

-Animation is a technique used to make objects and drawings appear as if they are moving.

-Stop-frame animation is a technique in which many photographs are taken of objects, with small movements in between.

-When the images are quickly shown together, the objects appear to move! (They are animated).

-There are many stop-frame animation apps and programs, for example iMotion, Stop Motion Studio and Clayframes.



### Creating a Basic Animation

iMotion is one of many apps that you can use to create animation. You can create a new animation by selecting the 'new movie' option.

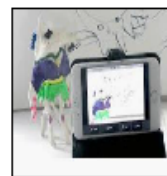


#### Setting Up

-Select 'manual.' Type in the movie title.

-Tap 'Start'. Turn on 'onion skinning'

-Make sure that your object/ drawing is in the frame (can be seen by the camera).



#### Creating the Animation

-Take a picture of your object/ drawing (press 'capture').

-Change the object/drawing very slightly. If drawing, keep a faint line of the original drawing to show you where to go next (onion skinning). Capture again.

-Repeat the process lots of times.

### Introduction to Animation

Animation is a technique used to make objects and drawings appear to move.



Animations have been around for many years – even before computers! Stop-frame animations work in the following way:

-A number of pictures are drawn or taken of an object or picture.

-In each drawing or picture, the object has been moved slightly. Each picture is called a frame.

-When the frames are shown in a sequence, an illusion is created where it looks as though the object is moving!



Lots of movies and TV programmes are animated. These include cartoons, and films like *Wallace and Grommit* and *Chicken Run*.

-In recent years, lots of stop-frame apps and programs have been released, which can be used to make homemade animations!



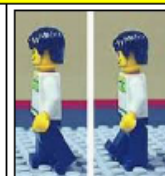
**Playback and Saving:** When you are finished, press 'stop' and then 'stop' again. Your animation will begin playing. You can change the speed (frames per second). Press 'export' to save your animation.



### More Complex Animations



Storyboards can be used to plan animations. They help you to plan your different frames.



-Consistency is important. In each frame, we need to think about which things stay the same (e.g. background), and which things change.



-Add music by tapping 'audio.' You can add in soundtracks, your own music, or sound effects. Tap + to select the track that you want. Carefully choose when the audio starts/ stops.



-You can also add text into your animation. Tap on the frame that you want to enter text into. Tap T for text. You can choose different fonts, and select where you want the text to appear.

### Important Vocabulary

Animation

Frame

Illusion

Sequence

Onion Skinning

Playback

Storyboard

Audio

Consistency

Text



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### Overview



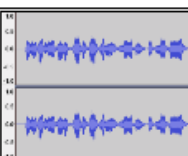
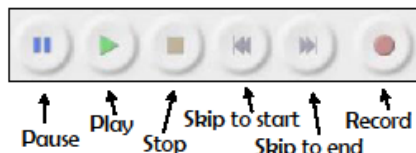
#### Audio Editing

- You should already know that audio means sound, including music, sound effects, and podcasts.
- The process of recording and listening to sound requires input devices (e.g. a microphone) and output devices (e.g. a speaker).
- Podcasts are a type of spoken word audio file, that can be downloaded by listeners.
- People can have ownership over audio files, and can have the audio copyrighted, so that it can't be copied without permission.

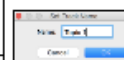
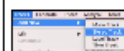


### Using Software

Audacity is one example of an audio editing tool, but many others are available. For example, you can use the voice memo recorder on a tablet.



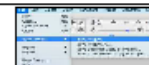
The sound is shown as a waveform. We should aim for it to peak at around 0.5/-0.5



#### How to Record a New Track





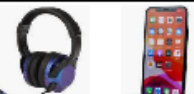
1. Go to the tab 'Tracks' and then 'Add New.'
2. Name the new track
3. Click in the track's window to select it.
4. Press record to begin recording into the new track.

Got to the 'file' tab and 'Save Project' to save your work. You can also delete recordings, but you should only ever delete your own files!



### Input and Output Devices

We use input devices to send the audio to the device/ computer. We use output devices to listen to the audio from the device/ computer.

Input Devices	Output Devices
 <p><u>Microphones</u> are input devices that change sound into electrical signals, which can then be recorded or transmitted.</p>	 <p><u>Digital speakers</u> turn the electrical signal into an audio output that can be heard by the listener.</p>
 <p>With the help of special cables, <u>musical instruments</u> can be linked to computers, and become input devices.</p>	 <p><u>Headphones</u> are worn over the ears of the listener, so that only they can hear the sound output.</p>
 <p>Some devices are capable of acting as both input and output devices. Examples include headsets, smartphones, and voice assistants (e.g. Google Home and Amazon Echo).</p>	

### Creating Podcasts

Podcasts are a type of spoken word file that can be downloaded by listeners. A user can often choose to download the whole series of podcasts.

Some examples of podcasts are 'Stories Podcast', 'Six Minutes' and 'Brains On! Kids Science Podcast.'

#### Features of podcasts include:

Sounds: Voices, jingles, background music, sound effects

Information: Presenters' names, name of podcast, introduction, main section, conclusion.



#### Top Tips for High-Quality Podcasts

- Speak clearly
- Avoid fillers ('um', 'like')
- Avoid coughing/ sneezing
- Take turns to speak
- Avoid background noise
- Don't touch the microphone
- Choose music carefully

### Important Vocabulary

Audio

Input

Output

Microphone

Speaker

Podcast

Waveform

Jingle

Track

Presenter



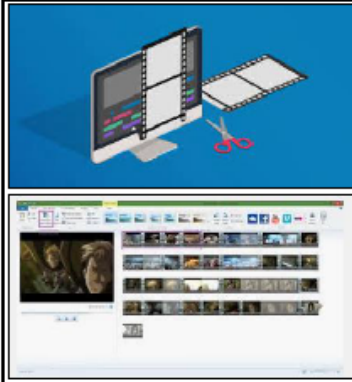
# COMPUTING: CREATING MEDIA

## KNOWLEDGE ORGANISER

Y5



### Overview



#### Video Editing

- You should already know that video means the recording, reproducing and broadcasting of visual images (often accompanied by audio).
- Video is made up of a sequence of images shown in quick succession, giving the impression of movement.
- Many different devices can be used to record, edit and playback video and sound.
- Theme, setting, characters, colour, sound, and dialogue are all important features of video.

### Editing Videos

Windows Movie Maker is one example of a video editing tool, but many others are available. Examples include WeVideo, Nero Video, and Apple iMovie.



In order to edit your video, you first need to import it from your device to the computer. You then need to import it into Movie Maker by clicking 'Add videos and photos.'



By right-clicking on the video thumbnail, you can choose to 'split' the video into pieces. The different pieces can be moved or deleted.



The trim tool allows you to move excess video from the beginning or the end.



A number of special effects are available, including using animations and transitions between shots. You can also add text in captions.

Remember to save your project regularly. You need to save your project as a \*.wmv file so that you can continue to edit it.



### Features of Videos

Videos present moving images, often accompanied by sound. The following features are commonly found in videos.



Plot means the main events in the video, shown in a sequence. Plot features are caused by and affect one another.



Themes are the main ideas that run through the video, e.g. love, friendship, magic, violence.



Most videos, even very short videos, try to give the audience a message. This may be obvious or hidden.



Props are the moveable objects that are used by the actors/ actresses in videos texts.



Dialogue is the name given for the conversations between people in video texts.



Characters are the different people and animals in a story, including in a video.

### Recording Videos



Static Camera: The camera is in a fixed position, sometimes using a stand or tripod. Examples of this in use are during news-reading and weather forecasts.



Zooming: Zooming in means to give a closer view of the subject. Zooming out gives us a further, broader view of the subject. Zooming too close can make the subject appear blurry.



Pan: The camera position is fixed, but moves from side to side.

Tilt: The camera position is fixed, but moves up and down.

#### Top Tips for Recording High-Quality Videos

- Use considered lighting.
- Think carefully about the sounds that you will use, e.g. music and sound effects.
- Think about the use of colour.
- Consider the use of a green screen for settings.

### Important Vocabulary

Video

Audio

Themes

Message

Dialogue

Plot

Props

Zoom

Angle

Pan/Tilt



# COMPUTING: CREATING MEDIA

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Y6




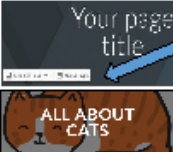
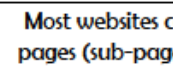
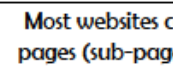
### Overview

#### Web Page Creation

- A **webpage** is a **hypertext** document that is a part of the World Wide Web.
- Websites** are a collection of webpages about the same topic. They can be found using **browsers**.
- Examples of websites are **Amazon** and **YouTube**. Webpages are the different pages on the websites.
- Websites are created for a chosen **purpose**, and with a particular **audience** in mind.
- They include **navigation paths**, and must adhere to copyright and fair use of media rules.

### Creating a Webpage

Google Sites has been used in these examples, but lots of other web page creation software and apps are available, with similar tools and functions.

	<b>Setting Up:</b> Click + to start a new website. Click on the top left to add a website name and the top centre to add a page title.		<b>Header:</b> You can add images used in the header, and the type of header, by clicking on these options.
			

**Text Box:** Lets you add different sections of text.

**Images:** Add in pictures from your computer or from the internet.

The **layouts** feature lets you set out your page in different ways. There are six for you to choose from.


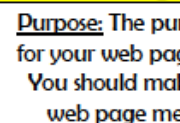


Most websites contain a home page, which introduces the website. The other pages (sub-pages) on the website go into more detail about individual topics.

### Features of Good Websites

Websites can be found using browsers. Browsers allow us to find our way around the worldwide web, and show us what websites look like.

	<b>-The website name is usually visible in large font, particularly on the home page.</b>		<b>-The menus at the top of the page allow you to look at different parts of the website.</b>
	<b>-There is often a slogan/ logo and short description of what the website is about.</b>		<b>-Pictures are used to highlight what the text is about. Colours are used carefully.</b>
	<b>-The search allows you to find different things on the website.</b>		<b>-Webpages are made up of a code called Hypertext Markup Language (HTML). You can find this by right-clicking on a page and selecting 'Inspect.'</b>
			<b>-There are links to other areas of the website/ World Wide Web (in blue).</b>

### Making Effective Web Pages

	<b>Purpose:</b> The purpose is the reason for your web page – what is it for? You should make sure that your web page meets its purpose.		<b>Navigation Pathways</b> Navigation Pathways are also known as breadcrumb trails. -Hyperlinks allow different pages to be linked together. -These links help the audience to navigate the website easily. -The user can also keep track of where they have been on the website.
	<b>Audience:</b> The audience are the people who your web page is aimed at. You should make decisions with your target audience in mind.		<b>Copyright:</b> You should only use images that are copyright-free. Many images are owned by people/ companies and cannot just be reused.

Important Vocabulary								
Web Page	Website	Domain	Hypertext	Purpose/ Audience	Browser	Copyright	Homepage	Navigation Pathways