



Computing Curriculum

“Our vision is to be the premier technology school in the UAE, ensuring that all our pupils are equipped and stimulated to engage in our ever more technical world with vision and flair”.

Robert Relton, Head Teacher

The Core Principles of the Computing Curriculum.

This curriculum should be covered primarily through day-day teaching and full integration with other subjects and cross-curricular work, making use of the range of technology that is available within school, including but not limited to 1 to 1 iPad provision.

The following core principles should underpin all Computing teaching and technology use within Repton School Abu Dhabi.

The extent to which they are addressed should be identified as part as medium term planning.

Digital Literacy (DLi)

Digital literacy forms the backbone of the Computing curriculum at Repton School Abu Dhabi. Children should develop Computing skills that can thoughtfully applied in a range of different situations, with children developing increasing independence in the choices they make over which technology to use to help them reach the desired outcome.

As they progress through KS1, children will become increasingly confident in the application of their digital skills, becoming increasingly efficient and effective communicators, collaborators and analysts, showing imagination and creativity in their use of Computing in different aspects of their learning and life beyond school.

The development of digital literacy is underpinned through the expectation that Computing skills are applied across all curriculum subjects.

Skills (Sk)

Children should be provided with the opportunity to learn, refine and improve their digital skills, across the curriculum as outlined above.



Technology in the World (TIW)

Children should develop an understanding of how technology makes a difference in all aspects of life - at home, at school and in the workplace, as well as considering the impact technology has had on society over the years.

Children will, for example, identify, develop an awareness of how technology is used in the world around us (EYFS) and begin to evaluate how software and hardware are used and use this evaluation in the planning of their own computing activities (KS1& KS2).

Technical Understanding (TU)

Children should develop the knowledge and understanding of how technology works.

This extends from an awareness that there is something inside a piece of technology to make it work (EYFS), progressing through KS1 and KS2 to children creating their own simple programs including games, utilities and applications with exposure computer codes and scripts.

Safe and Responsible Use (SRU)

E-safety is a fundamental element of Computing teaching and technology use at Repton School Abu Dhabi.

E-Safety lessons are explicitly included in the curriculum and take place regularly in each year group as part of both Computing and Whole school events such as assemblies based solely on e-safety.

The E-safety policy is shared and followed by all members of staff.

Our "Repton Recommends Screen Time Policy" is shared across the school, displayed in all classes and included on weekly planning planning by class teachers.

Curriculum Structure

To help ensure children have the opportunity to develop a wide range of skills, experiences and competencies with technology, the curriculum has been broken down into 6 key areas, with the core principles permeating through each area.



6 Key Curricular Areas

1. Digital Media

Photo editing and image manipulation, video and video editing, audio recording and editing and animation (some animation can also be programming)

2. Programming and Control

Making something 'happen' using technology (control, movement etc.).

3. Using the Internet

Researching, finding information etc...

4. Creating and Publishing

Anything that involves presenting information in some way using ICT- word processing, presentations, blogging, websites etc.

5. Communicating and Collaborating

Sharing work via technology, working collaboratively using the cloud.

6. Using Data

Spreadsheets (including using formulas), Databases and any other work that involves either sorting, presenting or manipulating data of some sort.

The coverage of each area will vary year group by year group. For example, the emphasis on **Programming and Control** increases as children move through Repton School Abu Dhabi.

It is important that technology is used as a day-to-day element of school life and across all subject areas.

Therefore if opportunities to use Computing skills arise but do not fall within the curriculum for each year group, they should be taken advantage of.

The Repton Curriculum



The Repton Curriculum incorporates the UK Curriculum, UAE STEM vision, the SCF framework (directed by ADEK) and internally identified digital skills.

- Basic UK EYFS Framework - Technology
- Children recognise that a range of technology is used in places such as homes and schools
- They select and use technology for particular purposes.
- Digital Competence included in the SCF Framework
- Additional Repton Abu Dhabi Framework for EYFS

Can hold and Carry iPad safely

Use home button (put iPad to sleep)

Turn iPad on and off.

Use volume buttons on my iPad.

Open an app on my iPad.

Find and open the camera app on my iPad.

Take a photo using camera app.

Take a video using camera app.

Can use the zoom function on the camera.

Can take a framed photo of own work.

Can navigate between a given app and the camera.

Can draw letters on apps such as Drawfree and doodle buddy.

Can record speaking using camera and listen back.

Can write letters in TinyTap.

Can write letters and record sounds in TinyTap.

Can take a picture while in an App.

Can insert a picture into an App from the library.



Can navigate to their class and avatar on skoolbo.
Can use the play button on Skoolbo.
Can complete a level correctly on Skoolbo.
Is aware that the web cannot be used without specific permission.
Can understand the mastery system in Skoolbo.
Can understand that the iPad can be used to store their work.
Can mirror with the class' Apple TV.

- **Key Stage 1 (UK Curriculum)**

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 behavior of simple programs

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.

- **Additional Repton Abu Dhabi objectives for Key Stage 1**

Can turn WIFI on and off.

Can lock orientation on the iPad.



Can receive an airdrop.

Can send an airdrop.

Can recognise the share button and know that there are many ways of sharing content.

Can mirror with the class' Apple TV.

Can close a non-responding App.

Can select higher and lower case letters on the keyboard.

Can navigate between the 3 different keyboards.

Can highlight and select text.

Can use skills to create a book in book creator.

Can export a book to iBook's.

Can create a tutorial video on showme.

Can begin to select the appropriate App for a given task,

Can select specific levels in Skoolbo.

Can use Google Earth search function to find a particular place.

Can identify Seesaw as their e-portfolio.

Can use Beebots to navigate Mazes.

Can program Daisy to complete at least 5 tasks on "Daisy the Dinosaur"



Can program Daisy to complete sequences using the repeat function.

Can program a character to complete at least 5 tasks on Hopscotch

Can Use “repeat” “When”

Can program a square on Hopscotch.

Can independently access tutorials on Hopscotch.

Can use a QR code.

Can independently access their Seesaw account using a QR or class code.

Can add various forms of content to their Seesaw account.

- **Key Stage 2 (UK Curriculum)**

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

Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration

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

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



- **Additional Repton Abu Dhabi objectives for Key Stage 2**

Can use Sphero's to navigate Mazes.

Can program Daisy to complete at least 5 tasks on "Daisy the Dinosaur"

Can program Daisy to complete sequences using the repeat function.

Can program a character to complete at least 5 tasks on Hopscotch

Can Use "repeat" "When"

Can program a square on Hopscotch or Sphero.

Can independently access tutorials on Hopscotch and swift playground.

Can use a QR code.

Can independently access their Seesaw account using a QR or class code.

Can add various forms of content to their Seesaw account

Upload projects onto Showbie for digital assessment



FS1 Computing Curriculum

FS1 Computing Medium Term Plan: Autumn

Topic:

- Rhythm and Rhyme

Cross Curricular Links:

Literacy

Maths

Understanding of the World

Expressive Arts and Design

Learning Objectives (EYFS objectives are in Italics)

Using Technology

- **Knows how to operate simple equipment, e.g. turns on cd player or uses remote control.**
 - Children can use CD Players to listen to stories.
 - Turn on iPad by pressing button and unlock by sliding finger across screen.
 - Can adjust volume appropriately on an iPad.
 - Uses Easi-speak microphones by holding down button and speaking.
 - Uses the Promethean pen to draw pictures on the Interactive Whiteboard.
- **Shows an interest in technological toys such with knobs or pulleys, or real objects such as cameras or mobile phones.**
 - Uses the iPad camera app to take photos.
 - Programs Beebot to move forwards/backwards.
- **Use Skoolbo effectively including;**
 - Finding and selecting class and user.
 - Creating and adapting character.
 - Selecting the correct answer.
 - Choosing prizes and new aircrafts



FS1 Computing Medium Term Plan: Spring	
Topic: <ul style="list-style-type: none"> • Growing and Changing 	
Cross Curricular Links: Literacy Maths Understanding of the World Expressive Arts and Design	
	Learning Objectives (NC objectives in bold)
Using Technology	<ul style="list-style-type: none"> ▪ Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. <ul style="list-style-type: none"> ○ Can program Beebots to move on a mat. <ul style="list-style-type: none"> • Programs to move forwards/back • Can program to turn left/right ○ Can select and use different painting/drawing apps to create images. (Show me, Phone4kids) ○ Can use the pen to control the interactive whiteboard. Turning pages on ActivInspire or dragging objects across the screen. • Knows that information can be retrieved from Computers. ○ Can find and look through past photos on the iPad.



- Completes a simple program on a computer.

Can create simple flipcharts on **Showme**:

- Can select a colour and draw on **Showme**.
- Begin to take and insert a photo on **Showme**.
- Record voice/sound on **Showme**.



FS1 Computing Medium Term Plan: Summer	
Topic: <ul style="list-style-type: none"> All About Me 	
Cross Curricular Links: Literacy Maths Understanding of the World Expressive Arts and Design	
	Learning Objectives (EYFS objectives are in Italics)
Using Technology	<ul style="list-style-type: none"> Completes a simple app/activity on a iPad. <ul style="list-style-type: none"> Uses Kodable effectively, can select the correct directional arrows with accuracy. Selects and uses an app based on child's own interests. Experiment with different camera options on the iPad. Uses ICT hardware to interact with age-appropriate computer software. <ul style="list-style-type: none"> Children explore a range of age-appropriate digital resources. Use the class Interactive Whiteboard appropriately to play educational games online.



FS2 Computing Curriculum

FS2 Computing Medium Term Plan: Autumn	
Topic: <ul style="list-style-type: none"> All About Me Houses and Homes 	
Cross Curricular Links: Literacy Maths Understanding of the World Expressive Arts and Design	
	Learning Objectives (EYFS objectives are in Italics)
Using Technology	<p>Children recognise that a range of technology is used in places such as homes and schools.</p> <p>Students will use Seesaw to</p> <ul style="list-style-type: none"> Upload their own work to Seesaw to be shared with parents Track their own progress Receive and respond to feedback <p>They select and use technology for particular purposes.</p> <p>Students will use ShowMe to</p> <ul style="list-style-type: none"> Create a flipchart based on a story (including sound recording, photo insert/take picture, draw) <p>• Completes a simple program on a computer.</p> <p>Students will use Bee Bots to</p> <ul style="list-style-type: none"> Start and clear a program



- Introduce simple systematic programming using the commands forward, backward, right and left

- **Uses ICT hardware to interact with age-appropriate computer software.**

Students will use **Skoolbo** to

- Recognize their own name
- Enter username and password
- Create an avatar
- Answer questions correctly
- Choose a series of different questions and topics within Maths and Literacy
- Track their progression



FS2 Computing Medium Term Plan: Spring	
Topic:	
<ul style="list-style-type: none"> Safari Animals 	
Cross Curricular Links:	
Literacy	
Maths	
Understanding of the World	
Expressive Arts and Design	
	Learning Objectives (EYFS objectives are in Italics)
Using Technology	<p>Children recognise that a range of technology is used in places such as homes and schools.</p> <p>Students will use Seesaw to</p> <ul style="list-style-type: none"> Add items to their own journal <p>They select and use technology for particular purposes.</p> <p>Students will use the Camera function on the iPad to</p> <ul style="list-style-type: none"> Record a video demonstrating knowledge and understanding of a topic or idea Take photos to collect information <p>Completes a simple program on a computer.</p> <p>Students will use Bee Bots to</p> <ul style="list-style-type: none"> Use information to correct mistakes in simple programs <p>Students will use ShowMe to</p> <ul style="list-style-type: none"> Create a flipchart based on a story (including sound recording, photo insert/take picture, draw)



	<p>• Uses ICT hardware to interact with age-appropriate computer software.</p> <p>Students will use Seesaw to</p> <ul style="list-style-type: none"> o Upload their own work to Seesaw to be shared with parents o Track their own progress o Receive and respond to feedback
FS2 Computing Medium Term Plan: Summer	
<p>Topic:</p> <ul style="list-style-type: none"> • Mini beasts • Toys 	
<p>Cross Curricular Links:</p> <p>Literacy Maths Understanding of the World Expressive Arts and Design</p>	
Learning Objectives (EYFS objectives are in Italics)	
Using Technology	<p>Children recognise that a range of technology is used in places such as homes and schools.</p> <p>Students will use Seesaw to</p> <ul style="list-style-type: none"> o Add items to their own journal <p>They select and use technology for particular purposes.</p> <p>Students will use ShowMe to</p> <ul style="list-style-type: none"> o Read story books o Create a flipchart based on a story (including sound recording, photo insert/take picture, draw) o <p>• Uses ICT hardware to interact with age-appropriate computer software.</p> <p>Students will use Kodable effectively,</p> <ul style="list-style-type: none"> o can select the correct directional arrows with accuracy.



- o Can select the level they wish to work on
- o Explain their thinking
- o Track their progression
- o Give a sequence of commands to programme the character through the maze

Introduction to software based programming

- o Children use “Daisy the Dinosaur “ to give sequenced commands



Year 1 Computing Curriculum

Year 1 Computing Medium Term Plan: Autumn	
Topic:	
Lost and found	
Cross Curricular Links:	
Literacy Humanities Science Art	
	Learning Objectives (NC objectives are in Italics)
Using Technology	<ul style="list-style-type: none"> ● Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions <ul style="list-style-type: none"> ○ Children understand that an algorithm is a set of instructions. ○ Use Beebots to program simple algorithms. ○ Program simple instructions on 'daisy the dinosaur'. ● <i>Create and debug simple programs</i> <ul style="list-style-type: none"> ○ Use "daisy the dinosaur" to create and debug a simple programme ○ Use Textease Turtle, 2Go, Focus on Beebot or Terry the Turtle to practice simple programming.
Communicating and Collaborating	
Using the Internet	



- Introduce a debugging method e.g. create a programme/algorithm/code. Does it achieve our goal (i.e. beebot getting to a certain place)? If not, why? What was wrong? Can we fix it?

- **Use skoolbo effectively including;**

- Creating and adapting character.
- Finding specific tasks,
- Understanding the mastering system,
- Recognising the difficulty levels.

- **Use Book creator to communicate learning and create content;**

- Input text,
- Add pictures
- Record and add video,
- Edit text to make it suitable and visually appealing.
- To continue to develop typing speed and accuracy to enable independent and efficient access to a computer
- Export books to iBooks and begin personal collection.



Year 1 Computing Medium Term Plan: Spring	
Topic: chocolate	
Where the forest meets the sea	
Cross Curricular Links: Literacy Humanities Science Art	
	Learning Objectives (NC objectives in bold)
Using Technology Communicating and Collaborating Using the Internet	<ul style="list-style-type: none"> ▪ Use logical reasoning to predict the behaviour of simple programs <ul style="list-style-type: none"> ○ Thinking logically and analytically - ○ Exploring other people's programs and algorithms. Share each other's programs. <ul style="list-style-type: none"> ▪ Think about important in game programming questions. What happens? Where will it go? What will it do? How do you know?



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| | <ul style="list-style-type: none">▪ Explore online games/apps and discuss what the programmer had to code to make different things happen.▪ Use technology purposefully to create, organise, store, manipulate and retrieve digital content<ul style="list-style-type: none">○ Beginning to research topics on the Internet.○ Create original content through showme; explain everything, keynote, book creator, pic collage, puppet pals, and iMovie.<ul style="list-style-type: none">▪ eBooks, ePosters, videos, powerpoints.▪ Begin to create content using apps such as Explain everything and Showme○ Show children where and how to store their work effectively and efficiently○ Introduce the idea and begin to use cloud storage. |
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Year 1 Computing Medium Term Plan: Summer	
Topic: Twit Tawoo	
Can we build it	
Cross Curricular Links: Literacy Humanities Science Art	
	Learning Objectives (NC objectives are in Italics)
Using Technology Communicating and Collaborating	<ul style="list-style-type: none"> ● Recognise common uses of information technology beyond school <ul style="list-style-type: none"> ○ Communication – introduce children to the different forms of communication e.g. email, texts, Skype etc. Practice using and communicating via technology. ○ Explore how everyday activities use technology e.g. buying groceries at supermarket, ordering a takeaway, school library system etc. ○ Go on a technology walk outside the school. What do you notice? Traffic lights? How do the electronic things know what to do at which time?



Using the Internet	<ul style="list-style-type: none"> ● 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. <ul style="list-style-type: none"> ● Children explore a range of age-appropriate digital resources. ● Children to know that not everything they find online is accurate. ● Children to know what to do if they find something inappropriate online. ● Children discuss, understand and abide by the school's e-Safety Policy ● Children know that passwords help to keep information safe and secure and that they should not be shared ● Children are aware that not everyone they could meet online is automatically trustworthy. ● Children understand that personal information is unique to them and should not be shared without a teacher or parent's permission.
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Year 2 Computing Curriculum

Year 2 Computing Medium Term Plan: Autumn	
Topic: Inventions Keeping Fit	
Cross Curricular Links: Literacy Humanities Science Art	
	Learning Objectives (NC objectives are in Italics)
Using Technology Communicating and Collaborating	<ul style="list-style-type: none"> ▪ <i>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</i> - Explain and demonstrate what algorithms are using a variety of means Inc. human robots, beebots and real life explanation texts.



Using the Internet

- Explain the words code, programming and debugging. Show examples of each including, pictures, videos, and examples of people debugging texts, machines or code.

- ***Create and debug simple programs***

Use “swift playground” to create and debug a simple programme

Use Swiftplayground to add increasing amounts of code.

Use Swift playground to program 2d shapes.

- ***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.***

Children explore a range of age-appropriate digital resources.

Children to know that not everything they find online is accurate.

Know that some websites contain advertisements (often embedded) and learn how to ignore them.

Children to know what to do if they find something inappropriate online.

Children discuss, understand and abide by the school’s e-Safety Policy - Pupils will create responsible use policy

Children know that passwords help to keep information safe and secure and that they should not be shared

Children contribute to a class discussion forum.

Children are aware that not everyone they could meet online is automatically trustworthy.

Children understand that personal information is unique to them and should not be shared without a teacher or parent’s permission.

Use Swift playground effectively including;



	<p>finding specific tasks, understanding the mastering system, recognising the difficulty levels, choosing and prioritising tasks.</p> <p>Use Book creator to communicate learning and create content;</p> <p>input text, add pictures record and add video, Edit text to make it suitable and visually appealing. To continue to develop typing speed and accuracy to enable independent and efficient access to a computer Export books to iBooks and begin personal collection.</p>
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Year 2 Computing Medium Term Plan: Spring	
<p>Topic: Fire Global Gardens</p>	
<p>Cross Curricular Links: Literacy Humanities Science Art</p>	
	Learning Objectives (NC objectives in italics)



<p>Using Technology</p> <p>Communicating and Collaborating</p> <p>Using the Internet</p>	<ul style="list-style-type: none"> ▪ <i>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</i> - Explain the use of repeat function in programming - Use apps such as “Playground” and “Sphero Edu+” to introduce the concept - Extend the repeat concept to programming apps such as Swift playground, lego Education and Sphero ▪ Begin to create content using apps such as Explain everything. ▪ - Introduce children to blogging using Showbie - Explain that people can blog on any subject - Discuss the various forms that blogging can take e.g. video, text, writing etc. - Discover the various audiences that blogs are aimed at. - Children begin to create content as part of blogs based on learning in different subjects.
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Year 2 Computing Medium Term Plan: Summer
Topic: Journeys Oceans and Seas
Cross Curricular Links: Literacy Humanities Science Art



	Learning Objectives (NC objectives are in Italics)
Using Technology	<ul style="list-style-type: none"> ▪ <i>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i>
Communicating and Collaborating	<ul style="list-style-type: none"> - Revisit internet safety lessons briefly from term 1 - Describe how to effectively retrieve information from the net for research purposes - Discuss ideas of copyright and plagiarism
Using the Internet	<ul style="list-style-type: none"> - Learn how to save and transfer text and pictures from the net to a device. ▪ Begin to create content using apps such as Explain everything, with an emphasis on issues of global importance and issues specific to the UAE. - Children will use blogging skills from Term 2 to create content on <ul style="list-style-type: none"> - Global issues - UAE issues - History of the UAE

Year 3 Computing Curriculum

Year 3 Computing Medium Term Plan: Autumn
Topic: Once Upon a time Mountains and Valleys



Cross Curricular Links: Literacy Humanities Science Art	
	Learning Objectives (NC objectives are in Italics)
Using Technology	<p><i>Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact</i></p> <ul style="list-style-type: none"> ○ Locate the contact us link ○ Recognize a phishing site ○ Know who to contact when having troubles online ○ How to recognize cyber bullying <p><i>Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</i></p> <ul style="list-style-type: none"> ● Demonstrate understanding of hostnames and network topology <ul style="list-style-type: none"> ○ Students understand that hostnames (@girls.com) allow for a network to be organized, and the transmission of information needs to be carefully planned (how do networks communicate with each other?) <p><i>Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i></p> <ul style="list-style-type: none"> ● Use the Google Search tool to <ul style="list-style-type: none"> ○ Access and retrieve online information ○ Create, capture and manipulate sounds and images
Using the Internet	



Communicating and Collaborating	<ul style="list-style-type: none">○ Recognise and link the importance of the information retrieved to their learning at school and at home <ul style="list-style-type: none">● Use Showbie and Apple University to<ul style="list-style-type: none">○ Complete and generate work from home○ Process and apply taught skills outside of the classroom○ Increase independence and communication through use of technology <p>Co2/1.6 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.</p> <ul style="list-style-type: none">● Use swift playground to develop simple programming skills;<ul style="list-style-type: none">○ Creating subject oriented code○ Design code to develop game play <ul style="list-style-type: none">● Use skoolbo effectively including;<ul style="list-style-type: none">○ Creating and adapting character.○ Finding specific tasks,○ Understanding the mastering system,○ Recognising the difficulty levels.
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Year 4- Computing Curriculum

Year 4 Computing Medium Term Plan: Autumn 2016

Topic:



Cross Curricular Links: Literacy Numeracy Humanities Science Art	
	Learning Objectives (NC objectives are in Italics)
Using Technology	<p><i>Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact</i></p> <ul style="list-style-type: none"> o How to self-monitor Internet usage including what are appropriate websites for the classroom. <p>Co2/1.6 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.</p> <ul style="list-style-type: none"> ● Use software to present data and information <ul style="list-style-type: none"> o Children will be using iMovie to create presentations about research o Children will be introduced to Easy Chart in order to display data collected during numeracy. o Children will use Dragon Dictation to develop their speaking and grammar skills, paying particular attention to use of punctuation. ● Use software programmes to control machines



- Children used a programming software application to control software devices.

- **Use swift playground to develop simple programming skills;**

- Introduce new students to Swift playground, focussing on introducing self paced tutorials on Swift playground.

- Link Swift playground home and school accounts for every student

- Creating subject oriented code

- Design code to develop game play

- **Explain everything**

- Use explains everything to as a solution for recording existing content. e.g. voiceover on screenshots and photos of work.

- **Use skoolbo effectively including;**

- Creating and adapting character.

- Choosing specific tasks,

- Understanding the mastering system,

- Systematically working through the levels in Literacy and Numeracy

Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration

- **Each child is aware of own place in showbie and basic functionality**



Co2/1.6 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 software to present data and information**

- Children will be introduced to **Easy Chart** in order to display data collected during numeracy.
- Children will use **Dragon Dictation** to develop their speaking and grammar skills, paying particular attention to use of punctuation.

- **Use software programmes to control machines**

- Children used a programming software application to control software devices such as **spero and lego education 2.0**

- **Use Swift playground to develop simple programming skills;**

- **New students will complete all self guided levels on swift playground**
- Creating subject oriented code
- Design code to develop game play

- **Explain everything**



<p>Using the Internet</p>	<ul style="list-style-type: none"> ○ Use Explain Everything to as a solution for recording existing content. E.g. voiceover on screenshots and photos of work. ○ Begin to use Explain Everything or iMovie to create blogs on issues of cultural relevance to the UAE. ● Use skoolbo effectively including; <ul style="list-style-type: none"> ○ Systematically working through the levels in Literacy and Numeracy <p><i>Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</i></p> <ul style="list-style-type: none"> ● Each child is aware of own place in showbie and basic functionality <ul style="list-style-type: none"> ○ Children begin to use showbie as their homework medium ○ Children are aware of the synchronistic relationship between different devices logged into the account.
<p>Communicating and Collaborating</p>	<p><i>Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i></p> <ul style="list-style-type: none"> ● Use the Google Search tool to <ul style="list-style-type: none"> ○ Access and retrieve online information ○ Create, capture and manipulate sounds and images ○ Recognise and link the importance of the information retrieved to their learning at school and at home



Continue to use Seesaw as e-portfolio across all subjects.

Year 4 Computing Medium Term Plan: Summer 2016

Topic:

Cross Curricular Links:

Literacy
Numeracy
Humanities
Science
Art

Learning Objectives (NC objectives are in Italics)

Using Technology

Co2/1.6 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 software to present data and information**
 - Children will be using **iMovie** to create presentations about research
 - Children will be using **Book Creator, or Pages** to publish stories.
- **Use software programmes to control machines**
 - Children used a programming software application to control software devices.
- **Use swift playground to develop simple programming skills;**
 - Design code to develop game play



	<ul style="list-style-type: none"> ● Explain everything ○ Begin to use explain everything or iMovie to create blogs on issues of cultural relevance to the UAE. Blogs are to be fortnightly of approximately 5 minutes in length and contain video footage of the child and increasingly interesting photos, videos, exploration of apps etc. throughout the year. <p style="text-align: center;">Create blogs of UAE cultural relevance with a view to these being shared on showbie and a selection on the Repton blog page.</p>
Using the Internet	<p><i>Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i></p> <ul style="list-style-type: none"> ● Use the Google Search tool to <ul style="list-style-type: none"> ○ Access and retrieve online information ○ Create, capture and manipulate sounds and images ○ Recognise and link the importance of the information retrieved to their learning at school and at home
Communicating and Collaborating	<p><i>Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</i></p> <ul style="list-style-type: none"> ● Each child is aware of own place in Swift playground and basic functionality <ul style="list-style-type: none"> ○ 80% of children consistently use showbie as their medium for homework submission.



- Continue to use Seesaw as e-portfolio across all subjects.

Year 5 Curriculum

Learning Objectives	Key Skills	Notes
Using technology		
<ul style="list-style-type: none"> x To continue to develop typing speed and accuracy to develop competency in typing x To understand the purpose of and use independently a range of different technology. x To make choices about when to use technology, which piece(s) of technology to use, which software/tools they are going to use on the technology and be able to explain their choices to others. 	<p>Throughout KS2 children should:-</p> <ul style="list-style-type: none"> x Continue to become familiar with a range of devices, for example tablets, desktop computers, laptops, microphones, cameras etc. and increasingly develop their independence and confidence in using these devices. x Continue to increase their typing speed, and be encouraged to play games at home and school which help with this. x Be encouraged to increasingly make sensible choices about the technology they use to help them work, and to justify their choices- for example, why they have chosen to use a <i>tablet</i> rather than a laptop, or why they have chosen to use an <i>easi-speak</i> microphone rather than the computer to record sound. 	<p><i>Just like handwriting, it is important that children type themselves when using a computer- no matter how slow they may be!</i></p> <p>Typing speed refers to copying PM, composition WPM will be slower.</p> <p>See 'tools for teaching typing' for software and websites to use.</p>



Using the Internet





<ul style="list-style-type: none"> x To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data x To save and use pictures, text and sound and be able to import into a document for presentation (ref. multimedia presentation) x To recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate x To understand the issues of copyright and how they apply to their own work 	<ul style="list-style-type: none"> x Discuss different strategies for finding relevant information e.g. using different keywords to find information on a given enquiry x Use a range of keywords to find different sources of information and enter them into a chosen search engine x Modify searches further to find relevant information for a report <ul style="list-style-type: none"> x Select and combine information from a range of different sources and present their findings using a word processing or multimedia/publishing package for a specific audience x Be aware that web sites are not always accurate and that information should be checked before it is used. x Discuss issues of copyright and downloading material e.g. mp3s, images, videos etc. Find images which are creative common licenced and understand the importance of stating their sources. 	<p>Delivered alongside 'Creating and Publishing' unit.</p>
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Communicating and collaborating online

<ul style="list-style-type: none"> x To share and exchange their ideas using e-mail and electronic communication- inside the school environment. x To use collaboration tools to work together to produce a joint piece of work 	<ul style="list-style-type: none"> x Continue to use e-mail to e-mail within woodlands-primary and to e-mail work completed in and out of school to their teachers and peers. x Collaborate on a project using a range of web 2.0 tools to support their work- including, but not limited to , google documents and sites (within the woodlands-primary domain) x Begin to collaborate with other children outside of Woodlands-primary (e-safety paramount) x Upload files to an online area e.g. video, photo story, sounds, images 	<p>All delivered as part as general curriculum.</p>
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Creating and Publishing



<ul style="list-style-type: none"> x To create non-traditional presentations using a range of tools, for a specific purpose (2012-13 only) x To create websites for a specific purpose and improve these sites. x To use technology to help them present their work, showing an increasing degree of skill and using advanced features of software and tools. x To select tools which they can use to help them achieve a specific aim and justify these choices to others. 	<ul style="list-style-type: none"> x Use an alternative presentation tool (for example <i>Prezi</i> or <i>Ahead</i>) to create a presentation linking into a topic, area of interest or event. x Continue to create websites based on topics, area of interest or events, increasing the complexity of these sites. x Continue to regularly use word processing and desktop publishing to present their work, combining formatted text with other media and making choices about programs and features to use and justifying these choices to others. x Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products. 	
<p>Digital Media</p>		



<ul style="list-style-type: none"> x <i>To use a range of technology to sequence sound samples, giving consideration to the audience and purpose. (2012-13 only)</i> x To use technology to electronically compose music or sounds including creating melodies and save these as audio files. x To use technology to capture and edit video, applying a range of different effects and incorporating numerous video clips. x To use technology to create images including using layers. x To understand the difference between a image and a vector drawing. x To independently take photographs and record video taking into account the audience and/or purpose for the image/video. 	<ul style="list-style-type: none"> x <i>Use a range of devices to create extended pieces of music using a wide range of pre-recorded samples. (2012-13 only)</i> x Use a range of devices to create music samples and sequence these. x Create and plan film trailers incorporating a range of different scenes and effects. x Use image creation tools to create more complex images, including using layers. Understand the differences between an image and a vector drawing. x Continue to choose to independently record video for a range of purposes. x Continue to take photographs for a specific reason or project and/or find appropriate images on-line. 	<p>Audio- use web based on-line tools and iPad apps.</p>
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Using Data

<ul style="list-style-type: none">x To continue to use, search, enter data into and create their own databasesx To continue to use technology, including spreadsheets to create graphs and present data in different ways..	<ul style="list-style-type: none">x Continue to use the computer and spreadsheets to create and alter graphs and charts.x Continue to use, query and create their own databases as appropriate, linking into work across the curriculum.x If appropriate and cross curricular links present the opportunity, begin to explore spreadsheets entering basic formulae.	
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**Year 6 Curriculum**

Learning Objectives	Key Skills	Notes
	Using technology	



<ul style="list-style-type: none"> x To continue to develop typing speed and accuracy to develop competency in typing x To understand the purpose of and use independently a range of different technology. x To make choices about when to use technology, which piece(s) of technology to use, which software/tools they are going to use on the technology and be able to explain their choices to others. 	<p>Throughout KS2 children should:-</p> <ul style="list-style-type: none"> x Continue to become familiar with a range of devices, for example tablets, desktop computers, laptops, microphones, cameras etc. and increasingly develop their independence and confidence in using these devices. x Continue to increase their typing speed, and be encouraged to play games at home and school which help with this. x Be encouraged to increasingly make sensible choices about the technology they use to help them work, and to justify their choices- for example, why they have chosen to use a <i>tablet</i> rather than a laptop, or why they have chosen to use an <i>easi-speak</i> microphone rather than the computer to record sound. 	<p><i>Just like handwriting, it is important that children type themselves when using a computer- no matter how slow they may be!</i></p> <p>Typing speed refers to copying WPM, composition WPM will be slower.</p> <p>See 'tools for teaching typing' for software and websites to use.</p>
<p>Using the Internet</p>		



<ul style="list-style-type: none"> x To check plausibility of information from a variety of sources on the same topic x To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data x To understand plagiarism and the importance of acknowledging sources 	<ul style="list-style-type: none"> x Understand the dynamics of different search engines and know that there are different search engines which may focus on different media x Modify searches further to find relevant information for a report x Talk about where web content might originate from by looking at web address, author, other linked pages x Talk about validity and plausibility of information by checking other sources x Recognise the impact of using incorrect information in their work x Skim and select information checking for bias and different viewpoints 	<p>Useful websites for Plausibility:</p> <ul style="list-style-type: none"> x <i>Investigate plausibility</i> http://www.school-portal.co.uk/GroupHomepage.asp?GroupID=257454 x Dog Island Free Forever: A puppy dog paradise. http://www.thedogisland.com x The Pacific Northwest Tree Octopus: http://zapatopi.net/treeoctopus.html x Victorian Robots: http://www.bigredhair.com/robots/index.html
<p>Communicating and collaborating online</p>		



<ul style="list-style-type: none"> x To use appropriate forms of communication to, share information or ideas x To use collaboration tools to work together to produce a joint piece of work with children both inside Woodlands Primary and in other schools. 	<ul style="list-style-type: none"> x Continue to collaborate on a project using a range of web 2.0 tools to support their work- including, but not limited to , goggle documents and sites- both with children in their class, other classes and children from other schools. x Respond to e-mails sent from outside the woodlands-primary domain using their woodlands-primary e-mail account. (e-sfatey paramount) x Talk about the different forms of electronic communication and web 2.0 tools, discuss appropriateness of using different tools in different contexts and the advantages and disadvantages 	<p>Collaboration and e-mails with others schools as part of transition to high school.</p>
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Creating and Publishing



<ul style="list-style-type: none"> x To use tools to help them design and create a web based application for smart phones/tablets, giving consideration to the market/audience for their application. x To create websites for a specific purpose and improve these sites. x To use technology to help them present their work, showing an increasing degree of skill and using advanced features of software and tools. x To select tools which they can use to help them achieve a specific aim and justify these choices to others., x Understand the importance of evaluation and adaptation of individual features to enhance the overall product. 	<ul style="list-style-type: none"> x Continue to create websites based on topics, area of interest or events, increasing the complexity of these sites. x Continue to create presentations which link into a topic, area of interest or event, choosing an appropriate tool or service x Create a web based application for a smart phone or tablet with consideration for the audience- containing information about a topic, trip, the school or to support work in other areas of the curriculum. x <i>Create a non-linear presentation. (2013-14 onwards)</i> <ul style="list-style-type: none"> x Continue to regularly use word processing and desktop publishing to present their work, combing formatted text with other media and making choices about programs and features to use and justifying these choices to others. x Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products. 	
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Digital Media



<ul style="list-style-type: none"> x <i>To use technology to electronically compose music or sounds including creating melodies and save these as audio files. (2012-13 only)</i> x <i>To begin to recognise the different layers of sound in a professional broadcast and use technology to record and manipulate music/sound refining for a given audience or project (2013-14 onwards)</i> x To use technology to create astop motion animations and add audio and video effects to these animations. x To use a computer to add complex effects to photographs and to preform common photograph edits (e.g. red eye removal) x To compare different image creation and editing tools and select the most appropriate tool to use, justifying their choices. x To independently take photographs and record video taking into account the audience and/or purpose for the image/video. 	<ul style="list-style-type: none"> x Use a range of devices to create music samples and sequence these. <i>(2012-13 only)</i> x Independently choose and use an appropriate device to record sounds in order to create a sound file and use software manipulate sounds using computer software – e.g. remove unwanted silences/trimming start and end <i>(2013-14 onwards)</i>- combine to make a podcast or similar broadcast. x Create stop motion animations and combine with video and audio effects. x Apply more complex effects to photographs using a computer. x Compare and contrast different image creation and editing tools across a range of platforms. x Continue to choose to independently record video for a range of purposes. x Continue to take photographs for a specific reason or project and/or find appropriate images on-line. 	<p>Audio- use web based on-line tools, audacity on a computer and iPad apps. Focus on using ambient sounds.</p>
<p>Using Data</p>		



<ul style="list-style-type: none">x To continue to use, search, enter data into and create their own databases..x To continue to use technology, including spreadsheets to create graphs and present	<ul style="list-style-type: none">x Continue to use, query and create their own databases as appropriate, linking into work across the curriculumx Understand what a spreadhseet is and the basic	
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<p>data in different ways. To be able to design, construct, evaluate and modify simple models i.e. enter data, enter formulae, copy cells and use simple formatting in a spreadsheet.</p> <ul style="list-style-type: none">x To use a spreadsheet to draw a graph to show datax To understand that ICT allows quick and easy changes to be made to different variables once a spreadsheet is set up. Talk about how the spreadsheet helps them to manipulate a model easily	<p>features of a spreadsheet and how these may be used in real life applications.</p> <ul style="list-style-type: none">x Linked into a theme, or real life application, create a spreadsheet, enter basic formulae (simple calculations and SUM) and change data in a spreadsheet to model situations and answer 'What if ...' questions.	
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Programming and Control

<ul style="list-style-type: none"> x To continue to develop their understanding of how computer and technology works and how computers process instructions and commands, including the use of coding languages. x <i>To use assisted programing software to create basic software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations.</i> x To use assisted programing software to more complex software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. x To control an on screen icon using text based programing, including writing complex written algorithms which involve sensors. x To begin to write simple scripts in an international recognised coding languag 	<ul style="list-style-type: none"> x Continue to explore different ways in which computer software can be planned. x Continue to develop an understanding of how technology works, with a focus on developing computational thinking x <i>Use a range of visual based programing software (e.g Scratch and Kodu) to plan and design basic software (for example a simple game), controlling the movement and responses of different elements on screen.</i> x Use a range of visual programing software to plan and design more complex software (for example a multi-level game) x Control an on-screen icon using text based controls, including responding to sensors and repeating written algorithms (e.g. Robomind) x <i>Begin to explore text based programing languages and create basic scripts (for example writing a python script to identify if a number is odd or even)</i> 	
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Modelling and Simulations

<ul style="list-style-type: none"> x To understand that ICT allows for complex situations to be modelled, or those which it would be impractical to try out in real life investigate the effect of changing variables in these simulations. x Know that simulations are often guided by hidden rules x To use software to model 3D objects, working to a scale. 	<ul style="list-style-type: none"> x Use software to create models of 3D objects, landscapes or items, including creating to scale x Use a range of more complex simulations, exploring the link to 'real life' and the impact of changing variables. Link the work exploring simulations to creating their own basic simulations in excel (see Using Data strand). 	
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Date Reviewed: January 2018
 Next review Date: January 2019