



The Computing Curriculum is divided into 3 areas:

<p>Computer Science</p>	<p>PROBLEM SOLVING:</p> <ol style="list-style-type: none"> 1. Understand what algorithms are. 2. Understand that algorithms are implemented as programs on digital devices. 3. Understand that programs execute by following precise and unambiguous instructions. <p>PROGRAMMING:</p> <ol style="list-style-type: none"> 1. Create simple programs. 2. Debug simple programs. <p>LOGICAL THINKING:</p> <ol style="list-style-type: none"> 1. Use logical reasoning to predict the behaviour of own programs. 2. Use logical reasoning to predict the behaviour of others' programs
<p>Information Technology</p>	<p>CREATING CONTENT:</p> <ol style="list-style-type: none"> 1. Use technology purposefully to create digital content. 2. Use technology purposefully to store digital content. 3. Use technology purposefully to retrieve digital content. 4. Use technology purposefully to organise digital content. 5. Use technology purposefully to manipulate digital content.
<p>Digital Literacy</p>	<p>DIGITAL CREATIVITY:</p> <ol style="list-style-type: none"> 1. The ability to create multimedia content. <p>DIGITAL TECHNOLOGY:</p> <ol style="list-style-type: none"> 1. Recognise common uses of technology. 2. Researching using the internet and search engines. <p>DIGITAL CITIZENSHIP (e-Safety):</p> <ol style="list-style-type: none"> 1. Use technology safely. 2. Keep personal information private. 3. Use technology respectfully. 4. Identify where to go for help when you have concerns.



The aim at Dropmore Infant School is to have 6 dedicated Computing units per academic year (2 per term) as well as covering e-Safety at the start of every term. In addition to this, children should be taught basic computing skills and have plenty of opportunity to use technology to support their learning in literacy, maths and all other areas of the curriculum.

Each Year group will have the freedom to choose which units to teach, depending on the topics covered and the learning focus (CS, IT, DL). The units can be chosen from 3 sources/schemes:

- Dropmore Planning
- Switch on Computing by Year Group
- Knowsley Scheme of Work by Year Group

At Dropmore we include at least two effective learner objectives to be the focus for the term, in addition to the specific objectives in the Computing activities.

Ability to work independently	Ability to work with each other	Resilience and Challenge	Creativity	Academic Progress
I do not rely on the teacher or other children for support. I can take independent notes or photographs at appropriate times to support my learning.	I am willing to work with others. I share thoughts and ideas with the rest of the group or class. I communicate appropriately and put forward my ideas within a group. I can give others constructive feedback on their ideas.	I attempt any task and try hard. I ask relevant questions of the teacher. I engage in different activities and small competitions, accepting and embracing challenges. I see difficult tasks as a challenge, something I must work at and learn from.	I can come up with ideas and use these ideas to help myself. I am keen to express my ideas in different ways. I take other's ideas into account alongside my own. I use a wide variety of sources effectively.	I am enthusiastic about the lesson and happy to contribute. I am keen to improve my knowledge and understanding. I understand how to improve.



CURRICULUM MAP - EYFS

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Unit / Activities	<p>For each half term, choose:</p> <ul style="list-style-type: none"> • One Dropmore Planning unit OR • One of the 6 units from Knowsley Scheme of Work OR • Up to 4 of the 24 activities from Switched on Computing <p>Ensure equal coverage of 3 areas (CS, IT, DL) when choosing your units or activities. For more information on the units and activities see below. Detailed plans and resources for all units and activities can be found here: T:\CURRICULUM\COMPUTING\PLANNING</p>					
Continuous Provision	<p>Every Day -Classroom Computer ready for use Depending on the topic and/or unit of work, have one or more of following resources available for children: Beebots, Roamer, Cameras, iPads, Microphones</p>					
e-Safety	DigiDuck		Smartie the Penguin		Discovery Education	
Basic Skills Computer	Open Paint App on computer and draw. Use mouse to navigate and draw	Complete keyboard name sheet (Basic Skills Worksheet -Username)	Open Word on computer Use keyboard to type own name	Login to network (Basic Skills lesson Reception Intro)	Closing apps Logoff safely	Login Big Brown Bear typing Logoff
Basic Skills iPad	Draw	Letterjoin	Login / locked screen	Find Apps	Close Apps	Battery Life



KNOWSLEY SCHEME OF WORK EYFS - OVERVIEW OF UNITS

Key Stage	Apptivity Name	Target Skills & Summary	Computing Curriculum
Rec - 1	Little Computers	Activity explaining what is a computer and its peripherals. Children will make their own computer using junk and develop basic computer skills through playing a variety of games.	IT & DL
Rec - 2	Junior Explorers	Children will learn to give sequences of instructions to control Bee-Bots (floor robot). Children will understand that instructions need to be given in a correct order.	CS
Rec - 3	A is for Algorithm	This unplugged activity will demonstrate to children the importance of sequencing by breaking down popular stories into individual elements so children can see the importance of following a sequence. Children will gain an understanding of the term Algorithm.	CS
Rec - 4	Art Attack	Children will experiment with different drawing apps and software across a range of devices whilst being introduced to different styles of digital art. This activity will show children how to find images using the web.	DL
Rec - 5	Fantastic Tales	This is a cross curricula activity with links to both Literacy and Art. Children will learn a popular tale and then re-tell the story by producing their own animation.	DL
Rec - 6	Let's Celebrate	This apptivity should be ideally delivered around the Christmas period as it can be directly linked to "writing an email to Santa". The aim is teach children about sending their first email and the rules that they should be aware of when communicating digitally.	IT & DL



SWITCHED ON COMPUTING EYFS - OVERVIEW OF ACTIVITIES

Activity	Description	Areas of learning and development	Computing Curriculum
1 - We have confidence	Recording and playing back sounds	<p>Personal, social and emotional development: self-confidence and self-awareness The children have the confidence to speak in a familiar group.</p> <p>Other Communication and language: speaking Communication and language: listening and attention</p>	IT & DL
2 - We can take turns	Manipulating objects on screen	<p>Personal, social and emotional development: making relationships The children play cooperatively, taking turns with others. They take account of one another's ideas about how to organise their activity. They show sensitivity to others' needs and feelings, and form positive relationships with adults and other children.</p> <p>Other Communication and language: speaking Expressive arts and design: exploring and using media and materials</p>	IT
3 - We are successful	Taking digital photographs and combining them with text and sound	<p>Personal, social and emotional development: self-confidence and awareness The children are confident to try new activities and to say why they like some activities more than others.</p> <p>Other Communication and language: speaking Literacy: writing</p>	DL
4 - We have feelings	Taking and displaying digital photographs	<p>Personal, social and emotional development: managing feelings and behaviour They talk about how they and others show feelings, talk about their own and others' behaviour.</p> <p>Other Expressive arts and design: being imaginative Expressive arts and design: exploring and using media and materials</p>	DL
5 - We can drive	Investigating everyday technologies	<p>Physical development: moving and handling The children negotiate space successfully when playing games with other children, adjusting speed or changing direction to avoid obstacles. They handle tools, objects, construction and malleable materials safely and with increasing control.</p> <p>Other Literacy: reading Expressive arts and design: being imaginative</p>	DL



Activity	Description	Areas of learning and development	Computing Curriculum
6 - We are DJs	Controlling digital sound files and videos	<p>Physical development: moving and handling Children show good control and coordination in large and small movements. They move confidently in a range of ways, safely negotiating space.</p> <p>Other Expressive arts and design: being imaginative Expressive arts and design: exploring and using media and materials</p>	DL
7 - We can exercise	Using digital timers and thermometers	<p>Physical development: health and self-care The children know that physical exercise makes an important contribution to keeping healthy.</p> <p>Other Language: speaking Physical development: moving and handling</p>	DL
8 - We are healthy	Internet research, opening applications	<p>Physical development: health and self-care Children know the importance for good health of physical exercise and a healthy diet, and talk about ways to keep healthy and safe.</p> <p>Other Literacy: reading Communication and language: listening and attention</p>	DL
9 - We can listen	Using technology to communicate verbally	<p>Communication and language: listening and attention The children listen attentively in a range of situations. They give their attention to what others say and respond appropriately while engaged in another activity.</p> <p>Other Personal, social and emotional development: making relationships Expressive arts and design: being imaginative</p>	IT
10 - We can understand instructions	Controlling (kitchen) equipment	<p>Communication and language: understanding The children follow instructions involving several ideas or actions. They answer 'how' and 'why' questions about their experiences.</p> <p>Other Communication and language: speaking Mathematics: shape, space and measure</p>	IT



Activity	Description	Areas of learning and development	Computing Curriculum
11 - We can understand messages	Controlling and using sound	<p>Communication and language: understanding Children follow instructions involving several ideas or actions. They answer 'how' and 'why' questions about their experiences and in response to stories and events.</p> <p>Other Communication and language: listening and attention Literacy: reading</p>	DL
12 - We are talkers	Using video cameras to record video clips	<p>Communication and language: speaking The children use talk to organise, sequence and clarify thinking, ideas, feelings and events. They express themselves effectively, showing awareness of listeners' needs.</p> <p>Other Literacy: reading Expressive arts and design: being imaginative</p>	DL
13 - We are digital readers	Choosing and opening applications and engaging with digital texts	<p>Literacy: reading The children read and understand simple sentences. They also read some common irregular words. They demonstrate understanding when talking with others about what they have read.</p> <p>Other Communication and language: listening and attention Communication and language: understanding</p>	IT
14 - We can email	Using email to communicate	<p>Literacy: writing Children write simple sentences, which can be read by themselves and others. Some words are spelled correctly and others are phonetically plausible.</p> <p>Other Communication and language: understanding Personal, social and emotional development: managing feelings and behaviour</p>	IT



Activity	Description	Areas of learning and development	Computing Curriculum
15 - We can blog	Communicating with digital text	<p>Literacy: writing The children use their phonic knowledge to write words in ways that match their spoken sounds. They also write some irregular common words. They write simple sentences that can be read by themselves and others. Some words are spelled correctly and others are phonetically plausible.</p> <p>Other Understanding the world: the world Understanding the world: people and communities</p>	IT
16 - We can count	Programming a programmable toy	<p>Mathematics: number Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number.</p> <p>Other Understanding the world: the world Expressive arts and design: exploring and using media and materials</p>	CS
17 - We are designers	Controlling a remote-controlled toy	<p>Mathematics: shape, space and measure Children use everyday language to talk about position and distance to solve problems.</p> <p>Other Communication and language: speaking Personal, social and emotional development: making relationships</p>	CS
18 - We are shape-makers	Using light projectors, switching on technology	<p>Mathematics: shape, space and measure The children use everyday language to talk about size and position. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.</p> <p>Other Communication and language: speaking Expressive arts and design: exploring and using media and materials</p>	IT
19 - We are community members	Taking and displaying digital photographs, recording sound	<p>Understanding the world: people and communities The children talk about past and present events in their own lives and in the lives of family members. They know about similarities and differences between themselves and others, and among families, communities and traditions.</p> <p>Other Literacy: writing Communication and language: speaking</p>	DL



Activity	Description	Areas of learning and development	Computing Curriculum
20 - We can observe	Taking photographs using a digital microscope	<p>Understanding the world: the world The children know about similarities and differences in relation to objects, materials and living things.</p> <p>Other Communication and language: speaking Communication and language: writing</p>	DL
21 - We are game players	Opening and closing files	<p>Understanding the world: technology The children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</p> <p>Other Personal, social and emotional development Physical development: moving and handling</p>	IT
22 - We are creative	Choosing and using tools in an art application	<p>Expressive arts and design: exploring and using media and material The children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Other Expressive arts and design: being imaginative Understanding the world: technology</p>	IT
23 - We can record soundtracks	Recording a sound track	<p>Expressive arts and design: being imaginative The children represent their own ideas, thoughts and feelings through music and stories.</p> <p>Other Communication and language: speaking Communication and language: understanding</p>	DL
24 - We are film producers	Recording video clips for a short film	<p>Expressive arts and design: being imaginative They represent their own ideas, thoughts and feelings through role-play and stories.</p> <p>Other Personal, social and emotional development: making relationships Personal, social and emotional development: self-confidence and selfawareness</p>	DL



DROPMORE PLANNING - OVERVIEW OF UNITS

UNIT	Description	Computing Curriculum
Programmable toys	<ol style="list-style-type: none"> 1. DIS PROGRAMMABLE TOYS Carousel of 3 activities programming Beebots 2. DIS PROGRAMMABLE TOYS Carousel of 5 activities programming Beebots & Espresso Coding 	CS
Beebots 2021	Progress through 5 stages of programming your Beebot using Dropmore Beebot mats At the end of the unit the children can use precise instructions to control direction and distance moved by a programmable toy.	CS
Scratch Jr 2023	At the end of the unit each child will be confident in using scratch jr to write and run a sequence of instructions to achieve simple objectives. Some children may be able to challenge themselves by experimenting with further functionality and designing their own projects	CS
Stop Motion	The children will create a short movie using the App Quik. They will work in small groups. Using a story board, they will decide on the different frames needed. They will make their own props, backdrops etc.	DL
Data Handling Data Handling 2023	At the end of the unit a database will have been created. Each child will have entered their own data record into the database. Children can sort information and use it to answer simple questions. More able children can investigate more complex questions by using criteria.	IT
Basic Skills	Login / Logoff, open & save document, mouse and keyboard skills	IT & DL
Online Safety Posters	At the end of the unit the children have produced a visually attractive online safety poster by editing fonts in Word	IT & DL
Recount	At the end of the unit the children will have created a powerpoint presentation about their trip to Mop End. The children will use a (differentiated) template to help them. More able children can add addition information, more slides and animations. The powerpoint presentation can be printed and displayed. A selection of presentations can be shared on the website.	IT & DL
Sharing Hour Invitation	At the end of the unit the children will have created an invitation using Microsoft Publisher. The children will use a (differentiated) template to help them.	IT & DL



UNIT	Description	Computing Curriculum
Who am I? Who am I? 2023	<p>At the end of the unit the children will have created a 2-page powerpoint presentation 'Who am I?' The first page will contain a self-portrait drawing (using 2paint a picture) and some facts. The second page will reveal their identity with a picture (photograph) and name. See example: 'Who am I? – GS' The children will use a (differentiated) template to help them. More able children can add additional information, more slides and animations. The powerpoint presentation can be printed and displayed. A selection of presentations can be shared on the website.</p>	IT & DL



**PLEASE COMPLETE THIS CURRICULUM MAP FOR EACH ACADEMIC YEAR WITH THE UNITS AND ACTIVITIES COMPLETED AND ANY NOTES OR COMMENTS.
PLEASE RETURN THE COMPLETED FORM TO THE SUBJECT LEADER.**

	Autumn 1 20xx	Autumn 2 20xx	Spring 1 20xx	Spring 2 20xx	Summer 1 20xx	Summer 2 20xx
Unit / Activities						
Continuous Provision						
e-Safety						
Basic Skills Computer						
Basic Skills iPad						