



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 2 main sources/schemes and 2 further optional schemes:

- Main Scheme – TWINKL
- Main Source – DROPMORE
- Optional Scheme - Switch on Computing by Year Group
- Optional Scheme - 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 am willing to work with others. | I attempt any task and try hard. | I can come up with ideas and use these ideas to help myself. | I am enthusiastic about the lesson and happy to contribute. |
| I can take independent notes or photographs at appropriate times to support my learning. | I share thoughts and ideas with the rest of the group or class. | I ask relevant questions of the teacher. | I am keen to express my ideas in different ways. | I am keen to improve my knowledge and understanding. |
| | I communicate appropriately and put forward my ideas within a group. | I engage in different activities and small competitions, accepting and embracing challenges. | I take other’s ideas into account alongside my own. | I understand how to improve. |
| | I can give others constructive feedback on their ideas. | I see difficult tasks as a challenge, something I must work at and learn from. | I use a wide variety of sources effectively. | |



CURRICULUM MAP - YEAR 2

| | 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 of the 8 units from TWINKL Scheme of Work OR replace them with one of the Dropmore Units (R:\Teachers Only\CURRICULUM\COMPUTING\SCHEMES OF WORK) Alternatively, you can choose one of the other schemes (Knowsley or Switched on Computing) <p>Ensure equal coverage of 3 areas (CS, IT, DL) when choosing your units. For more information on the units see below. Detailed plans and resources for all units can be found here: T:\CURRICULUM\COMPUTING\PLANNING</p> | | | | | |
| Continuous Provision? | Depending on the topic and/or unit of work, have one or more of following resources available for children: Laptops, Beebots, Roamer, Cameras, iPads, Microphones | | | | | |
| e-Safety | Acceptable Use Policy Jessie and Friends | | DIS e-Safety Planning 2 Lesson 1-4 | | Discovery Education Create Poster | |
| Basic Skills Computer | Login with username and password Logoff | Create / save / retrieve documents | Edit documents | Twinkl Touch Typing | Twinkl Touch Typing | Twinkl Touch Typing |
| Basic Skills iPad | Login / Locked screen Find Apps | Close Apps | Battery Life | Letter join | Mastery Maths | Discovery Education |



TWINKL PLANNING - OVERVIEW OF UNITS

Computing Year 2

Explore Year 2 Computing lessons with these award-winning PlanIt units of work, following the 2014 National Curriculum.

Year One

Year Two

Year Three

Year Four

Year Five

Year Six

Progression Maps





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 |



KNOWSLEY SCHEME OF WORK YEAR 2 - OVERVIEW OF UNITS

| | Apptivity Name | Target Skills & Summary | Computing Curriculum |
|----------|-----------------------------|--|----------------------|
| Y2 - 13 | You've got mail | The aim of this apptivity is to help children explore how they can use email to communicate with real people within their schools, families, and communities. | IT & DL |
| Y2 - 14 | Super Sci-Fi | This space inspired project starts by children creating a simple space invader game to then creating a game using advanced settings. The children will also learn about mnemonics and create their own interactive quiz as well as bring Neil Armstrong to life retelling his story. | DL & IT |
| Y2 - 15 | Whatever the Weather | This apptivity will get children looking at data, how it can be presented and interpreted. Children will have to gather the data and then select the most appropriate method to display the data they have captured. | IT |
| Y2 - 16 | Code-tastic | Introduction to the language of code. Children will use a variety of programming apps/software to give them a practical understanding of how computer programs actually run. | CS |
| Y2 - 17 | Young Authors | This apptivity will take the children on a technological journey and show them how technology has advanced over the years. This project will culminate in the children creating their own eBook. | DL & IT |
| Y2 - 18 | Let's Fix IT | Using Scratch, this apptivity will challenge children to analyse simple computer programs and by identifying any errors within the code, they can find a solution. | CS |
| Y2 - 201 | Vehicles | In this computing activity we will researching, designing and building our own vehicles. The children will then produce their own advert to showcase their amazing creations. | DL & IT |
| Y2 - 202 | Mythical Creatures | The children will learn about the history of and different types of animation. They will firstly produce a story about their made-up mythical creature and then create their animation out of Clay/Plasticine or Paper using Animate it. | IT |



SWITCHED ON COMPUTING YEAR 2 - OVERVIEW OF ACTIVITIES

| | Unit Name | Description | Computing Curriculum |
|-----|-----------------------------|---|----------------------|
| 2.1 | We are astronauts | The children will build on work from Unit 1.1 – We are treasure hunters to program a sprite (such as a spaceship) to move around the screen. | CS |
| 2.2 | We are game testers | The pupils will try to work out how some simple Scratch games work. They also look at free online or open source games and share their favourite games with the class. | CS & DL |
| 2.3 | We are photographers | The children review photos online, practise using a digital camera, take photos to fit a given theme, edit their photos, and then select their best images to include in a shared portfolio. | IT & DL |
| 2.4 | We are researchers | The children research a topic – safely, effectively and efficiently – using a structured approach (mind mapping). They share their findings with others through a short multimedia presentation. | IT & DL |
| 2.5 | We are detectives | The children are challenged to solve a mystery by reading, sending and replying to emails, and by listening to a witness statement. They use a fact file sheet to create a table and identify the culprit. | IT & DL |
| 2.6 | We are zoologists | The children go on a bug hunt, recording and identifying the small animals they find. They then organise the data they have collected, record it using a graphing package, and interpret the graph to answer questions about the animals. | 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 | | | | | | |