# ICT – Year 1

The **NC AIMS** are that all children should:

- 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 behaviour 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.

The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| Multimedia and Word processing | Digital media | Control | Communication and Collaboration | Programming | E-safety |
|---|---|---|---|---|---|

## E-Safety

Understanding implications of 'online'; emails; navigating websites; privacy.
Understanding nature of websites: accuracy, advertisements, inappropriate content
Communicating online – passwords, anonymity, trustworthiness

## Multimedia and Word processing

- knowing the keyboard
- select and add images, sounds, graphics, captions, layouts
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## Digital media + Graphics

*Graphics*

- use a paint package to create artwork
- save and print

*Music and Sound*

- explore electronic music, sound devices and software
- select and create own music or soundscape
-

## Control

- follow and give instructions to move onscreen around a course
- extend control skill to other devices (recording, camera, *etc.*)
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## Communication and Collaboration

*Messaging*

- compare electronic with traditional forms of written communication
- respond to an electronic message

*Publishing*

- Create a class blog, forum or webpage, adding graphics and sound
- Decide who should be able to access this from home.

## Data

- use sorting or grouping programs
- explore pictograms and other ways of illustrating data

# ICT – Year 2

The **NC AIMS** are that all children should:

- 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 behaviour 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.

The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| Multimedia and Word processing | Digital media | Communication and Collaboration | Programming | E-safety |
|---|---|---|---|---|

## E-Safety

Understanding implications of 'online'; emails; navigating websites; privacy.
Understanding nature of websites: accuracy, advertisements, inappropriate content
Communicating online – passwords, anonymity, trustworthiness

## Multimedia and Word processing

- type text; edit, save, print, retrieve, insert and amend
- select and use graphics, video and sound to enhance

## Digital media + Graphics

*Digital imagery*

- edit image quality, enhance by, *e.g.*, cropping, recolouring

*Animation*

- create a sequence of still images to form an animation which illustrates a story or idea

## Programming

Units 1 and 2 – Control; Move the Turtle

- generate instruction sequences to create geometric shapes, patterns
- ditto to move floor robots in required directions
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## Communication and Collaboration

*Messaging*

- compare, discuss and evaluate different ways of e-communication

*Publishing*

- discuss value and ways of sharing information with a wider audience

## Data

- use graphic package to record own information
- appreciate value of ICT-based data handling
- understand nature of a branching database: *i.e.* yes/no answers only

# ICT – Year 3

The **NC AIMS** are that all children should:

- 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 behaviour; identify a range of ways to report concerns about content and contact.
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The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| **Multimedia and Word processing** | **Digital media** | **Programming** | **Data** | **E-safety** |
|---|---|---|---|---|

## E-Safety

*online research*: differing search engines, authenticity and use of information, unwanted advertising, safesearch, acknowledging sources, copyright, plagiarism
*communication and collaboration*: variety of platforms, appropriate language, email attachments, social networking, privacy, uncomfortable communication
*e-awareness:* cyberbullying, passwords, communication by unknown source

## Multimedia and Word processing

- enhance text using fonts, text boxes, borders, etc.

## Digital media + Graphics

*Music and Sound*

- locate, record, save and retrieve sounds, using software

**Programming**

UNIT 1: SCRATCH

- create an animation with background and sprite

UNIT 2: LOGO

- write a practical program to produce lines or geometric patterns

**Data**

*Databases*

- collect, evaluate and store data
- convert to, *e.g.*, bar charts, to provide answers to relevant questions

**Communication and Collaboration**

*[if studied]* discuss, evaluate and use internet messaging; publish, follow and interact with blogs; develop and use more sophisticated methods for both

# ICT – Year 4

The **NC AIMS** are that all children should:

- 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 behaviour; identify a range of ways to report concerns about content and contact.
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The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| Multimedia and Word processing | Digital media | Programming | Data | E-safety |
|---|---|---|---|---|

## E-Safety

*online research*: differing search engines, authenticity and use of information, unwanted advertising, safesearch, acknowledging sources, copyright, plagiarism
*communication and collaboration*: variety of platforms, appropriate language, email attachments, social networking, privacy, uncomfortable communication
*e-awareness:* cyberbullying, passwords, communication by unknown source

## Multimedia and Word processing

- enhance text by, *e.g.* inserting photographs

## Digital media + Graphics

*Music and Sound*

- plan, script and record a radio programme

## Programming

UNIT 1: SCRATCH

- create a simple game with a sprite

UNIT 2: KODU

- create a virtual world with a moveable sprite

## Data

*Graphing*

- use and evaluate different graphing packages on collected data

*Branching Databases*

- study, create and use a branching database to analyse data
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## Communication and Collaboration

*[if studied]* discuss, evaluate and use internet messaging; publish, follow and interact with blogs; develop and use more sophisticated methods for both

# ICT – Year 5

The **NC AIMS** are that all children should:

- 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 behaviour; identify a range of ways to report concerns about content and contact.
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The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| Multimedia and Word processing | Digital media | Programming | Data | E-safety |
|---|---|---|---|---|

## E-Safety

*online research*: differing search engines, authenticity and use of information, unwanted advertising, safesearch, acknowledging sources, copyright, plagiarism
*communication and collaboration*: variety of platforms, appropriate language, email attachments, social networking, privacy, uncomfortable communication
*e-awareness:* cyberbullying, passwords, communication by unknown source

## Multimedia and Word processing

- present enhanced text for a specific audience
-

## Digital media + Graphics

*Digital imagery*

- plan and record a video, using cinematic techniques

*Music and Sound*

- collect, import, record and edit sounds from different sources
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**Programming**

UNIT 1: KODU

- enhance a virtual world with multiple characters, different camera angles, *etc.*

UNIT 2: SMALL BASIC

- use basic language and commands

**Data**

*Modelling and Simulation*

- navigate a spreadsheet using basic functions
- create and use a spreadsheet for a practical purpose

*Data logging*

plan and carry out an investigation using data logging technology

**Communication and Collaboration**

*[if studied]* discuss, evaluate and use internet messaging; publish, follow and interact with blogs; develop and use more sophisticated methods for both

# ICT – Year 6

The **NC AIMS** are that all children should:

- 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 behaviour; identify a range of ways to report concerns about content and contact.
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The **EASTCOURT ATTAINMENT TARGETS** can be tabulated as follows:

| Multimedia and Word processing | Digital media | Programming | Data | E-safety |
|---|---|---|---|---|

## E-Safety

*online research*: differing search engines, authenticity and use of information, unwanted advertising, safesearch, acknowledging sources, copyright, plagiarism
*communication and collaboration*: variety of platforms, appropriate language, email attachments, social networking, privacy, uncomfortable communication
*e-awareness:* cyberbullying, passwords, communication by unknown source

## Multimedia and Word processing

- present enhanced text for a specific audience
-

## Digital media + Graphics

*Digital imagery*

- plan and record a video, using cinematic techniques

## Programming

UNIT 1: PYTHON - small basics

- use basic language and commands

UNIT 2: HTML

- create formatted page with pictures, hyperlinks, *etc.*
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## Data

*Databases*

- collect, organise, interpret and draw conclusions from a database to solve a specific problem.
- present and justify findings to an audience

*Simulation*

- identify and enter formulae into a spreadsheet to create tables of results, draw graphs and answer specific questions

## Communication and Collaboration

*[if studied]* discuss, evaluate and use internet messaging; publish, follow and interact with blogs; develop and use more sophisticated methods for both