

Year 3 Computing Curriculum

Basic skills and Presentation

Know how to switch on and log onto a computer and iPad.

Know how to save work in the right folder.

Know how to log off and shut down a computer and iPad.

Presentation

Create a presentation that moves from slide to slide and is aimed at a specific audience.

Combine text, images and sounds showing an awareness of audience.

Manipulate text, underline text, centre text, change font and size and save text to a folder.

Algorithms and Programs

Experiment with variables to control models.

Use 90 and 45 degree turns.

Give an on-screen robot directional instructions.

Draw a square, rectangle and other regular shapes on screen using commands.

Write more complex programs.

Using the internet

Find relevant information by browsing a menu.

Search by using a keyword using a child friendly search engine.

Search for an image, copy and paste it into a document.

Use 'Save picture as' to save an image to the computer.

Copy and paste text into a document.

Begin to use note making skills to decide what text to copy.

Bookmark a page into your favourites.

Data retrieving and Organising

Review images on a camera and delete unwanted images.

Experience downloading images from a camera into files on the computer.

Use photo editing software to crop photos and add effects.

Manipulate sound when using simple recording story boarding.

Databases

Input data into a prepared database

Sort and search a database to answer simple questions.

Use a branching database.

Year 4 Computing Curriculum

Basic skills

Know how to switch on, log on, save work, log off and shut down a computer and iPad.

Presentation

Create a lengthy presentation that moves from slide to slide and is aimed at specific audience.

Insert sound recordings into a multi media presentation.

Manipulate text underline text, centre text, change font and size and save text to a folder.

Algorithms and Programs

Use repeat instructions to draw regular shapes on screen using commands.

Experiment with variables to control models.

Make turns specifying the degrees.

Give an on-screen robot specific directional instructions that takes them from x to y.

Make accurate predictions about the outcome of a program they have written.

Using the internet

Use a search engine to find a specific website.

Use note-taking skills to decide which text to copy and paste into a document.

Use tabbed browsing to open two or more web pages at the same time.

Open a link to a new window.

Open a document (pdf) and view it.

Data retrieving and Organising

Capture images using webcams, screen capture, scanning, visualiser and internet.

Choose images and download into a file.

Download images from the camera into files on the computer.

Copy graphics from a range of sources and paste into a desktop publishing program.

Databases

Input data into a prepared database.

Sort and search a database to answer simple questions.

Recognise what a spread sheet is.

Use the term cells, rows and columns.

Enter data, highlight it and make bar charts.

Year 5 Computing Curriculum

Basic skills

Using the internet

Find relevant information by browsing a menu.
Search for an image, copy and paste in into a document.
Use 'Save picture as' to save an image to the computer.
Copy and paste text into a document.
Begin to use note making skills to decide what text to copy.

Algorithms and Programs

Combine sequences of instructions and procedures to turn devices on or off.
Understand input and output.
Use an ICT program to control an external device that is electrical and or mechanical.
Use ICT to measure sound or light or temperature using a sensor.
Explore 'what is' questions by playing adventure or quest games.
Write programs that have sequences and repetitions.

Presentation

Use a range of presentation applications.
Consider audience when editing a simply film.
Prepare and then present a simple film.
Use ICT to record sounds and capture both still and video images.
Make a home page for a website that contains links to other pages.
Capture sounds, images and video.

Data retrieving and Organising

Listen to streaming audio such as online radio.
Download and listen to podcasts.
Produce and upload a podcast.
Manipulate sounds using Audacity.
Select music from open sources and incorporate it into multimedia presentation.
Work on simple film editing.

Databases

Create a formula in a spreadsheet and then check for accuracy and plausibility.
Search databases for information using symbols such as = > and <.
Create databases planning the fields, rows and columns.
Create graphs and tables to be copied and pasted into other documents.

Year 6 Computing Curriculum

Basic skills

Using the internet

Contribute to discussions on line.

Use a search engine using keyword searches.

Use complex searches using such as '+' 'or' find the phrase in inverted commas.

Algorithms and Programs

Explain how an algorithm works.

Detect errors in a program and correct them.

Use an ICT program to control a number of events for an external device.

Use ICT to measure sound, light or temperature using sensors and interpret the data.

Explore 'what if' questions by planning different scenarios for controlled devices.

Use input from sensors to trigger events.

Check and refine a series of instructions.

Presentation

Present a film for a specific audience and then adapt the same film for a different audience.

Create a sophisticated multimedia presentation.

Type at a speed which supports publishing their own work.

Data retrieving and Organising

Explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)

Add special effects to alter the appearance of a graphic.

'Save as' a gif or jpeg. Wherever possible to make the file size smaller (for emailing or downloading).

Make an information poster using their graphics skills to good effects.

Databases

Collect live data using data logging equipment.

Identify data error, patterns and sequences.

Use the formulae bar to explore mathematical scenarios.

Create their own database and present information from it.

Year 3 and 4 E-safety.

Knowledge and understanding.

Understand the need for rules to keep them safe when exchanging learning and ideas online.

Recognise that information on the internet may not be accurate or reliable and may be used for bias, manipulation or persuasion.

Understand that the internet contains fact, fiction and opinion and begin to distinguish between them.

Use strategies to verify information, e.g. cross-checking.

Understand the need for caution when using an internet search for images and what to do if they find an unsuitable image.

Understand that copyright exists on most digital images, video and recorded music.

Understand the need to keep personal information and passwords private.

Understand that if they make personal information available online it may be seen and used by others.

Know how to respond if asked for personal information or feel unsafe about content of an message.

Recognise that cyber bullying is unacceptable and will be sanctioned in line with the school's policy.

Know how to report an incident of cyber bullying.

Know the difference between online communication tools used in school and those used at home.

Understand the need to develop an alias for some public online use.

Understand that the outcome of internet searches at home may be different than school.

Skills

Follow the school's safer internet rules.

Make safe choices about use of technology.

Use technology in ways which minimises risk, e.g. responsible use of online discussions etc.

Create strong passwords and manage them so that they remain strong.

Independently, and with regard for e-safety, select and use appropriate communication tools to solve problems by collaboration and communicating with others within and beyond school.

Competently use the internet as a search tool.

Reference information sources.

Use appropriate strategies for finding, critically evaluating, validating and verifying information e.g. using different keywords, skim reading to check relevance of information, cross checking with different websites or other not ICT resources.

Use knowledge of the meaning of different domain names and common website extensions (e.g. .co.uk; .com; .ac; .sch; .org; .gov; .net) to support validation of information.

Year 5 and 6 E-safety.

Knowledge and understanding.

Discuss the positive and negative impacts of the use of ICT in their own lives and those of their peers and family.

Understand the potential risk of providing personal information online.

Recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content.

Understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented.

Recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing).

Understand that some material on the internet is copyrighted and may not be copied or downloaded.

Understand that some messages may be malicious and know how to deal with this.

Understand that online environments have security settings, which can be altered, to protect users.

Understand the benefits of developing a 'nickname' for online use.

Understand that some malicious adults may use various techniques to make contact and elicit personal information.

Know that it is unsafe to arrange to meet unknown people online.

Know how to report any suspicions.

Understand they should not publish other people's pictures or tag them on the internet without permission.

Know that content put online is extremely difficult to remove.

Know what to do if they discover something malicious or inappropriate.

Skills

Follow the school's safer internet rules.

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