Kobi Nazrul
- PRIMARY SCHOOL -

VISION FOR: Computing
At Kobi Nazrul, the teaching of Computing enables children to communicate and create in an ever-changing world; be digitally literate and safe; show computational thinking and solve problems
PRINCIPLES AND RATIONALE
Our Computing curriculum supports children in an every-changing technological landscape. We aim to equip all pupils with the skills and knowledge needed to enjoy a safe and healthy online existence in school and, crucially, outside of school and in their later lives. This means children are encouraged to think critically and discerningly when using the internet; they are taught to recognise the power of the internet and how it is important to behave responsibly when using it; and the creative and collaborative aspects of technology stimulate them. Skills are covered across year groups and are built on as children progress through their school life. These include programming, organisation of files and folders and creative use of a range of technologies.

	Autumn	Spring	Summer	Unit title
Nursery / **Reception**	*Programming using rabbits and carrots* *Also see note below*	*Photographers – taking photos of their own and each other's learning* *Also see note below*	*Programming using Beebots* *Also see note below*	
Year 1	**2.1 We are astronauts** **Program** on screen, understand **algorithms** and **debug** **Scratch/Daisy the Dinosaur (iPad)** 1,2,3	**1.5 We are storytellers** Use technology **creatively** by producing a talking book **Book Creator (iPad)** 4,5	**1.4 We are collectors** Use technology **safely** to find images using the web **Google Chrome, Google Slides** 4,5,6	
Year 2	**2.2 We are game testers** Explore how **algorithms** and **programming** make computer games work **Scratch** 1,2,3,6	**2.3 We are photographers** Use a **range of technologies creatively and safely** to take photos **Google photos (formally Picasa)** 4,5,6	**3.6 We are opinion pollsters** Collect and analyse data and **recognise uses for technology** beyond school **Google Forms** 5	
Year 3	**3.1 We are programmers** **Design**, **write** and **debug programs** for an animation **Scratch** 1,2,3,7	**3.3 We are presenters** Use a **variety of technologies creatively** to video a performance **iMovie** **Green Screen/ DoInk (iPad)** 4,6,7	**3.5 We are communicators** Understand the **networks** which allow **safe communication** on the internet **Gmail** 4,5,6,7	
Year 4	**4.1 We are software developers** **Design**, **write** and **debug programs** for a simple educational game **Scratch** 1,2,3,7	**4.3 We are musicians** Use a **variety of software** to **create** digital music **Auxy/Garageband (iPad)** 2,4,6	**3.4 We are network engineers** Understand **computer networks**, including the internet 4	
Year 5	**5.1 We are game developers** **Design**, **write** and **debug programs** to develop an interactive game **Scratch** 1,2,3,7	**4.4 We are HTML editors** **Edit**, **debug** and **problem solve** using HTML **X-Ray Goggles** 1,4,5,7	**4.5 We are co-authors** Use a **range of technologies** to write **collaboratively** (adapted from S.O. scheme) **Padlet** 4,6,7	
Year 6	**5.4 We are web developers** Use a **range of technologies** to **collaboratively** create a website **(E-safety/secondary transition focus)** **Google Sites** 4,5,6,7	**4.6 We are meteorologists** **Select** and **use** a **variety of software** to **evaluate** and **present data** about the weather **Google sheets** 6	**5.5 We are bloggers** Use the internet to **safely** share experiences and opinions online **(E-safety/secondary transition focus)** **Blogger/ Twitter** 4,5,6,7	

Description and subject content

Suggested software (Chromebooks unless otherwise stated)

Creating Opportunities   Building Aspirations   Inspiring Success

Note: EYFS may integrate computing opportunities into their wider curriculum. See:
https://docs.google.com/document/d/1Ya7RX0HB9ueMUO3z7qhDS9ugnxKH-aBT/edit?usp=sharing&ouid=115733815164792559835&rtpof=true&sd=true

Subject Content

Key stage 1
Pupils should be taught to: 1. understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions   2. create and debug simple programs   3. use logical reasoning to predict the behaviour of simple programs   4. use technology purposefully to create, organise, store, manipulate and retrieve digital content   5. recognise common uses of information technology beyond school   6. 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
Key stage 2
Pupils should be taught to: 1. design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts   2. use sequence, selection, and repetition in programs; work with variables and various forms of input and output   3. use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs   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   5. use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content   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   7. use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

EYFS - CYCLES A AND B (Please see separate EYFS Subject overview for further detail)	What skills do we want children to develop across topics in the EYFS? (Birth to 5 Matters, Ranges 4,5,6):
	• Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images • Under adult supervision, uses ICT hardware and age-appropriate computer software/search engines to retrieve information from the internet • Completes a simple program on electronic devices • Can create content such as a video recording, stories, and/or draw a picture on screen

WORKING WITH AND THROUGH OUR KEY CURRICULUM CONCEPTS

- **Change**
  Helping children thrive in an ever changing technological landscape. Preparing children for jobs which require an increased level of technological skill and understanding. Debugging a program to make it work.

- **Power**
  Supporting children to recognise the power of online media and to think critically when online.

- **Identity and Belonging**
  Belonging to an organisation and being able to communicate effectively using technology. Having the social and cultural capital to present or express yourself appropriately.

- **Equality and Equity**
  Providing access to enable children to use technology independently and safely. Ensuring that everyone has the opportunity to use technology successfully.

- **Connections**
  Support children in forming positive relationships through the use of technology and being able to identify the most appropriate forms of communicating. Understand computer networks including the internet; how they can use them safely and respectfully; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.

- **Legacy**
  Creating something that can have a positive impact and accomplish a goal. Recognising the legacy of technological developments and their impact on:
  -future developments
  -people's lives (benefits and challenges)
  -other aspects of our world (e.g. sports)

Note: EYFS may integrate computing opportunities into their wider curriculum. See:
https://docs.google.com/document/d/1Ya7RX0HB9ueMUO3z7qhDS9ugnxKH-aBT/edit?usp=sharing&ouid=115733815164792559835&rtpof=true&sd=true

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