



NADEEN
SCHOOL
BAHRAIN

Computing Policy

Vision and Mission

We are a child-centred, inclusive, and diverse family with a shared love of learning.

Our mission is to provide a caring, nurturing and empowering environment in which all students can learn and thrive. Our students have the skills and mindset to:

- think, explore and grow
- celebrate and respect ourselves, and the people around us
- have a positive impact on the world

Purpose

We believe that an engaging and motivating computing curriculum will enable our learners to:

- Use computational thinking and creativity to understand and make a positive difference to the world
- Make deep cross-curricular links with mathematics, science, art, and design and technology
- Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming
- Become confident digital citizens - able to use, express themselves, and develop ideas through information and communication technology safely
- have a growing awareness of how technology is used in the world around them, and of the benefits that it provides and are supported to use new and unfamiliar technology
- use technology imaginatively to drive their learning

Computing Curriculum

Computing is a core subject in the National Curriculum for England. We use the National Curriculum as the basis for implementing the statutory requirements of The National Curriculum Programme of Study for Computing ([see appendix 1](#)) and the Statutory Framework for Early Years Foundation Stage ([see appendix 2](#)).

- Long term planning has been developed using the Teach Computing Curriculum journey ([see appendix 3](#)), and demonstrates coverage and progression of the attainment expectations at the end of the Key Stage 1, Key Stage 2 and beyond
- Medium term planning takes account of differentiation and progression, and is based on the Teach Computing units of work in computing systems and networks, creating multimedia, data and information and and programming ([see appendix 4](#))
- Exemplification planning by Teach Computing has been used to support short term planning
- The computer science aspects of computing are taught discretely through the programming threads of the computing curriculum
- Key skills in information technology are developed through creating multimedia and data and information threads and are integrated into learning in other curriculum areas
- E-Safety is developed through PSHE, and together with the threads of computing Systems and networks and multimedia, builds the skills and understanding of digital literacy

- Opportunities for technology as a tool to support teaching and learning in all areas are identified in curriculum planning

E-Safety

- A progressive e-safety curriculum based on the South West Grid for learning (SWGfI) and Common Sense Media schemes ([see appendix 5](#)) ensures progression and coverage in e-safety, so that all students become responsible digital citizens with the skills to stay safe online
- Opportunities for learning about online safety are part of PSHE Policy and reinforced wherever technology is used
- Clear rules for online safety are promoted in line with the whole school rules reflected in the school's Behaviour Policy
- Parents and students sign an acceptable user policy together when a student first enrolls at the school
- The school uses [Hapara](#) software to monitor student's use of technology
- Teachers are strongly encouraged to monitor student's web surfing through Hapara on a 3-week block cycle
- The school supports the international Safer Internet Day each February and provides opportunities for students to consider cyberbullying as part of Anti-Bullying week
- Opportunities are taken whenever possible to reinforce messages of a healthy lifestyle and limiting screen time

Monitoring

- The impact of the computing curriculum is monitored regularly by the computing subject leader through teacher and student discussion, as well as samples of work in the form of an electronic portfolio and/or offline evidence
- Systematic monitoring of all threads of computing informs the subject leader's action plan and whole school improvement plan
- The computing subject leader conducts regular audits of the training needs of teachers and classroom assistants to improve their subject knowledge and confidence. Requests for training in computing can be requested by teachers as part of their performance review

Equal opportunities

- The school maintains its policy of equal opportunities (see here) as appropriate for computing
- Computers and related technology are made available to all students regardless of gender, race or abilities
- The classroom teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEND (special educational needs and disabilities) students are met
- The school is aware that not all students learning online have access to the same kind of device in EYFS and KS1. This is considered by staff in the planning and delivery of the curriculum

Assessment

- Progress is assessed on an on-going basis using statements for each area of computing as stipulated in the Teaching and Learning Policy ([see here](#)). This ensures teachers are aware of individual student's progress in computer science, information technology and digital literacy
- Each class teacher maintains a record indicating students that are working above or below age-related expectations. This is passed on to the next class teacher
- Self and formative assessment is used by the classroom teacher and classroom assistant during whole class or group teaching. Student's confidence and difficulties are observed, assessments for learning (afl) notes are taken and used to inform future planning
- During lessons, students are made aware of the learning question (LQ) and 'I can...' success criteria statements in order to be successful
- Open questions are used to challenge student's thinking and learning
- Students are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer assessment
- Teacher's judgements are supported through an electronic portfolio of evidence which provides examples of age-related expected attainment
- Information is shared with the school community through the school website, displays, celebration events, newsletters, and interim and end of year reports

Resources

- The school has a range of resources to support the delivery of the computing curriculum, the Early Years Framework and learning across all areas of the National Curriculum. We maintain a list of resources used in each Key Stage ([see appendix 6](#))
- Online tools such as Google Classroom are an essential part of the experience of students

- The computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's IT technicians
- Hardware and software faults are logged by the class teacher and sent to the IT department
- The computing action plan expresses the subject's priorities for future expenditure and is reviewed by the computing subject leader and SLT who consider its impact on student's learning
- Governors and SLT ensure that they achieve value for money by implementing the principles of best value in evaluating, planning, procuring and using technology for educational purposes
- Out of date resources are disposed of in line with the school's data protection policy where these are applicable

Health and safety

- Age appropriate whole school class rules are displayed in the learning environment as referenced in the school's Behaviour Policy
- Equipment is maintained and meets agreed safety standards
- From Early Years, students are taught to respect and care for technology equipment and this is included in the school's Acceptable User Policy
- Further guidance can be found in the school's Health and Safety Policy

Roles and responsibilities for implementing the Computing Policy:

The headteacher and deputy headteacher will:

- lead, support, guide and advise in the vision, leadership, development, monitoring and evaluation of learning across the school community
- meet Nadeen School's Governing Body requirements as they relate to the school's curriculum
- ensure that the school curriculum is delivered by experienced and qualified teachers, in order to provide a world-class education system that will help prepare students to have a positive impact on the world
- ensure relevant professional development for staff is available in curriculum related areas
- ensure the school curriculum meets all regulatory requirements

Subject leaders will:

- provide a strategic lead and direction for their subject
- monitor curriculum coverage
- provide and deliver relevant professional development for staff in their subject
- work collaboratively to support cross curricular planning and direction
- support and offer advice to colleagues on issues related to their subject
- monitor and report on student progress and standards in that subject area
- provide efficient resource management for their subject
- keep up-to-date with developments in their subject at both national and local level. Based on these developments, they will review the way the subject is taught in the school, plan for improvement and implement change as per the School Improvement Plan
- review curriculum plans for their subject, ensure there is full coverage of the long term objectives and progression is planned into schemes of work
- ensure the delivery of their subject throughout the school adheres consistently to school policies and procedures
- mentor and provide support to colleagues

Teachers will:

- implement the curriculum which balances England and Bahrain national curriculum expectations whilst encompassing a range of experiences that allow our children to develop academically and personally
- have clear strategic planning which allows the curriculum to be dynamic and adapt to the context of the school and children's needs
- use assessment observations and data to inform future planning and raise the achievement of all students
- be accountable for, and consistently practice, the Behaviour for Learning Policy
- commit to improving their own practice through reflection and self-evaluation and seeking additional professional development when necessary

Teaching assistants will:

- assist the classroom teacher in all of the above
- communicate effectively and sensitively with students to ensure learning is accessible to all
- keep those involved informed of performance and progress or concerns they may have about the students
- commit to improving their own practice through reflection and self-evaluation and seeking additional professional development when necessary



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Written by:	Liam McCormick
Draft Date:	9th March 2022
Reviewed by:	Paul Walton
Indicative Review Date:	August 2026



Appendix	
<u>Appendix 1</u>	The National Curriculum Programme of Study for Computing
<u>Appendix 2</u>	Statutory Framework for Early Years Foundation Stage
<u>Appendix 3</u>	Teach Computing Curriculum Journey
<u>Appendix 4</u>	Teach Computing medium term units of work
<u>Appendix 5</u>	SWGfI and Common Sense Media e-safety scheme of learning
<u>Appendix 6</u>	Computing Resources

Appendix 1

Purpose of study

A high-quality computing education equips students to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which students are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, students are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that students become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world

Aims

The national curriculum for computing aims to ensure that all students:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

Attainment targets

By the end of each key stage, students are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Key stage 1

Students should be taught to:

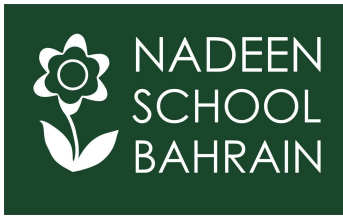
- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions

- 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

Key stage 2

Students should be taught to:

- 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



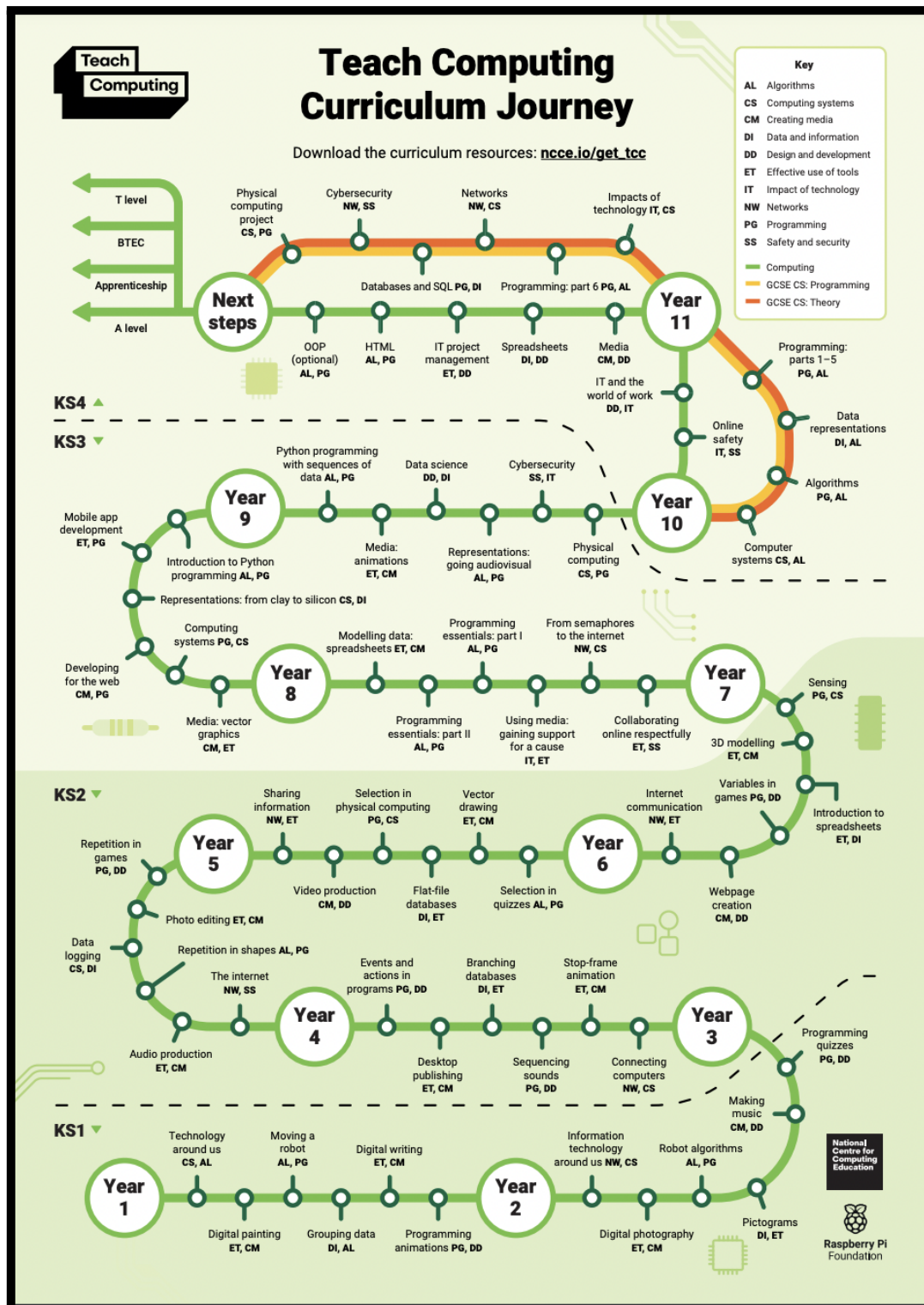
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Appendix 2

[Statutory Framework for the Early Years Foundation](#)

Appendix 3

Teach Computing Curriculum Journey



Appendix 4

Year Group	Teach Computing Units					
Year 1	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)
Year 2	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)
Year 3	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)
Year 4	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)
Year 5	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)
Year 6	Computing Systems & Networks	Creating Media (A)	Programming (A)	Data & Information	Creating Media (B)	Programming (B)

*The Teach Computing curriculum is structured into units for each year group, and each unit is broken down into lessons. Units can generally be taught in any order, with the exception of programming, where concepts and skills rely on prior knowledge and experiences. Lessons must be taught in numerical order.

APPENDIX 5

SWGfl (South West Grid for Learning) and Common Sense Media E-safety scheme of learning

[Year 1 E-Safety Content](#)

[Year 2 E-Safety Content](#)

[Year 3 E-Safety Content](#)

[Year 4 E-Safety Content](#)

[Year 5 E-Safety Content](#)

[Year 6 E-Safety Content](#)

APPENDIX 6

*Please note this table is linked directly to a master spreadsheet. Do not make any edits here as they will be lost.

Existing Computing Resources			
Type	Model	Target Key Stage	Quantity
6 Pro Bot Programmable Robots	NA	KS1	6
Beebots	Beebots - 7 Programmable Robots	KS1	6
Microbit Club	Invent and create with Technology	KS2	10
Raspberry Pi Touchscreen Display	Raspberry Pi Touchscreen Display	TBC	3
Raspberry Pi Ultimate Initio Robot	Raspberry Pi Ultimate Initio Robot	TBC	1
Raspberry Pi3 Starter	small programmable computer	TBC	5 - including 1 screen found broken
Sphero SPRK+ school robots	Sphero SPRK+ school robots	KS2	12
Turning Frog Robot Kit	Turning Frog Programmable Robot	TBC	6
Ipads	Apple Ipads 6th and 7th Gen	KS1 & KS2	24
Headphones		KS1 & KS2	24
Wireless Keyboards	small ones for Ipads use	Whole School	10