	Computing Policy	

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Intent in Computing

The whole ethos of Molescroft Primary School is to provide every child with a happy, caring, learning environment in which he or she can develop their full potential - whatever their needs and irrespective of ability, race, culture or gender.

Molescroft Primary School believes that :

- Children should be equipped to use technology as a tool to enhance and improve work quality, efficiency and lifestyle.
- Children should understand how to use all technology safely and responsibly, especially online communication technologies. *(also see e-safety policy)*
- Children should have an understanding of how computers and networks function, and how they can be programmed to complete tasks.

Role of the Subject Leader

The subject leader is not expected to know "everything" about a subject but is expected to be fully abreast of how best to teach and organise the subject in addition to being aware of current best practice and research in the subject.

The subject leader will moderate the standards of children's work and the progression of planning, teaching, and learning across the school. This includes the transition from the Foundation Year; understanding how the subject's foundations are grounded and developed in the Foundation Year.

The subject leader will support colleagues in the teaching of the subject, informing them about current developments in the subject, and providing a strategic lead and direction for the subject in the school. This will involve leading teacher meetings as required and producing an annual subject evaluation to feed into the Standards Night and through to the new School Improvement Plan.

The subject leader should advise the Headteacher, staff and governors of current practice in the subject and any new initiatives put forward by the government or LA.

Role of the Class Teacher, Senior Management Team & Governing Body

The Role of the Governing Body: The governing body should, in cooperation with the Head teacher, determine the school's general policy and approach to the subject at the school. This will include the priority given to the subject within the context of the whole curriculum.

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Class Teachers : Even though whole school co-ordination and support is essential to the development of Computing capability, it remains the responsibility of each teacher to plan appropriate Computing activities and assist the co-ordinator in the monitoring and recording of pupil progress in Computing.

Teachers' own use of Computing in lessons is also an essential part of preparing engaging, fast moving, motivating lessons for pupils. The Computing and E-safety coordinators will keep teachers up to date on the latest uses of Computing as a teaching tool; individual teachers then need to decide the best ways to use the technology in their lessons.

Implementation - Entitlement, Curriculum Organisation & Planning

Curriculum organisation:

The Computing curriculum is a brief document, giving an overview of the skills and knowledge children should have at the end of each Key Stage. Molescroft Primary School have created their own scheme of work which covers the National Curriculum for Computing and ensure progression in skills and knowledge across the school.

Some of the Computing skills are taught in PPA sessions by Teaching Assistants, who are trained and supported by the ICT coordinator. Some skills are taught by class teachers, and all skills should be used ,wherever possible, to enhance lessons across the curriculum with technology in the classroom (iPads, Green Screen, Beebots etc).

Relationship with the rest of the curriculum:

Due to the nature of the computing curriculum and the technology available to pupils at Molescroft Primary School, information technology works symbiotically with much of the curriculum subjects.

Digital literacy is taught at every opportunity pupils utilse technology. In addition, the message and skills are reinforced during stand-alone lessons.

Computer science is taught in specific lessons, with gradual progression across the years and school. This utilises both app-based programs and programming hardware.

Medium term plans:

The medium term plans have been created by the computing co-ordinator to cover the breaths of skills and knowledge stipulated in the new curriculum.
. They:

- Ensure progression.

- Provide a starting point.
- Provide a focus for discussions between the teacher and coordinator.
- Avoid the stage of having to think what to do.
- Allow for continued development of technology and software

Monitoring the Impact (Assessment, Reporting and Recording)

Coordinators conduct their own Learning Walks and analyse the impact of teaching and learning in Computing by conducting deep dives, which include sampling the pupil voice and the work at all stages of the process.

Coordinators also produce a Self-Evaluation analysis for governors through the Annual Standards Report and Standards Evening.

Mastery in Computing

What it means to achieve mastery in the subject.

Pupils fully understand how to use technology as a tool to enhance and improve work quality, efficiency and lifestyle. Pupils can confidently use a range of technology safely and responsibly, especially online communication. Pupils have an understanding of how computers and networks function and how they can be programmed to complete tasks effectively. Pupils understand and apply the process of programming including identifying errors in algorithms and designing and creating programme inputs that lead to successful outputs.

- **What does Coherence mean in the subject?**
o The process of computing experience is consistent across the school.

o On starting a unit there should be a reminder of the lessons learned in previous units and particularly those with similar skills.

o The programme of study is designed to develop skills progressively across each year group and across school.

- **What does variation mean in the subject?**
o The key variation is in the range of programmes that pupils have the opportunity to develop skills in.
o The opportunity for problem solving linked to real life context.

o Children should experience working in groups and alone.

- **What does structure mean in the subject?**
  - Where appropriate, unit plans should be taught with the following structure:
    - Analysis of the technology that already exists and link to real world.
    - Teaching and practice to master the skills required to enable the children to be successful in using the technology.
    - Planning
    - Creation
    - Evaluate and develop solutions.

- **What does fluency mean in the subject?**

o Pupils are confident and expected to verbalise and demonstrate their reasoning and understanding with open ended questions at regular intervals.
o Pupils should expect to be challenged by critical questions and problems.
o Pupils develop the ability to choose which technology they wish to use for a given task.

- **What does "making connections / logical reasoning" mean in the subject?**

o On the commencement of each unit there is reference to the previous time, similar skills and technology used.

o The context of the work is made explicitly clear in that all children understand how the work fits into modern day society.

The KEY CONCEPTS/THEMES/PROCESSES which run through the units which need to be developed, step by step, and show progression year on year.

- **Computer Science –** Analyse and understand problems. Create programmes. Evaluate and develop solutions.

- **Information Technology –** Develop skills across multiple programmes to create a range of digital content.
- **Digital Literacy –** Good online citizenship. Responsible, Confident, Competent and Creative.

Computing in the Foundation Stage

EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas.

The most relevant statements for computing from the 2021 EYFS Statutory Framework are prerequisite skills for computing within the national curriculum are taken from the following areas of learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

Activities and knowledge are expected to allow children to be able to progress onto the KS1 computing objectives.

Relationship with the rest of the curriculum and Cross Curricular Opportunities

Relationship with the rest of the curriculum:

Due to the nature of the computing curriculum and the technology available to pupils at Molescroft Primary School, information technology works symbiotically with much of the curriculum subjects.

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Promoting Equality & Inclusion

- All pupils, regardless of gender, race or Learning needs will be given equal access to the Computing curriculum.
- The Computing curriculum will be differentiated according to the needs of the pupils.
- If a pupil needs specialist hardware / peripherals in order to access the Computing curriculum the School will liaise with ESPD to source the appropriate equipment.
- If a child is Statemented and not able to access the curriculum at the same level as his/her peers then provision will be made for the pupil to access the curriculum at their own level.
- Pupils will not be discriminated against because they do not have access to a computer outside of school.

SEN/D

These children wherever possible are included in the normal class activity but depending on their specific requirement may be guided by/to:

- TA support where appropriate
- Adapting resources so children can engage
- Targeted support of pre-teaching or post-teaching.

Talented Pupils

Pupils are extended by open-ended activities and challenges that encourage pupils to think more deeply and critically about the content. This can be achieved by using higher order questions and activities. In addition, talented children can also utilise their greater knowledge and skills to help guide other struggling pupils demonstrating a higher level of understanding.

Resources

Teachers have been supplied with the following in-class resources:
- Their own iPad and Apple Pen
- Access to a vast range of apps and programs
- Poster and keyword resources for each classroom
- Supplied with a range of resources on the shared drive and links to useful sites.
  These include:
  www.barefootcomputing.com
  www.computingatschool.org.uk
  www.code-it.co.uk
  www.tes.com/teaching-resources/hub/primary/computing
  www.stem.org.uk/primary-computing-resources
  https://www.twinkl.co.uk/resources/new-2014-curriculum-resources/2014-curriculum-computing-resources
  https://www.bbc.co.uk/bitesize/subjects/zyhbwmn
  https://www.bbc.co.uk/bitesize/subjects/zvnrq6f
  https://classroom.thenational.academy/subjects-by-key-stage/key-stage-2/subjects/computing

Extended Curricular Opportunities, Wider Opportunities and Liaisons with Other Organisations

As required, we reach out to other organisations to support the development of our computing curriculum. This includes ,when appropriate, CPD from external resources. On occasions trips have been organised to secondary schools to help enrich pupil understanding of the opportunities within computing. In addition, the school has recently launched an "Hour of Code" day, this is now an annual event.

Management Information Systems

- Is the MIS integrated or separate from Curriculum development/usage? The MIS is separate from the curriculum development and usage.
- Is it necessary to use the same hardware/software?
  The MIS all run on PCs. The curriculum software runs on Apples.
- Who is responsible for the MIS? Business Manager
- Who provides support for the MIS? ERYC IT Services
- Who monitors whether MIS is used effectively? Headteacher / SMT

- Who has access to the MIS?
  Headteacher, Deputy Headteacher, SMT, Admin Officers.

• How is training provided? Courses run by the East Riding

Resource management - Physical

Hardware

The list of hardware available in school is constantly changing as hardware is upgraded, replaced or new technologies are brought in. The current (2019) basic provision includes:

- A laptop for every teacher
- An iPad for every teacher
- KS2 class sets of iPads
- Small group iPads for Foundation Stage and Year 1
- iPads for KS1 ICT.
- Desktop machines (iMacs) – being phased out.
- 15 Midi keyboards for Music Composition
- School SLR camera
- Projectors and SmartBoards in every classroom
- Beebot Control Devices and maps
- Touchscreen Display (Parish centre room)
- Data projector in hall

Software

Software for use in the classroom develops very quickly and a static list of the software we currently use would be of little use. However, a useful app list is made available on the shared drive and new developments are communicated by email ,staff meetings and demonstrations.

For Computer science there is a prepared list of programmes to ensure progression. This is listed within the Medium term plans.

However, when a unit of work is planned, teachers should consider the most effective piece of software to fit the objective. Sometimes this could be free/paid software apps that need installing on ipads, sometimes it could be 'Cloud' software that runs online.

Teachers requiring help with choosing the most appropriate software should see the Computing coordinator for support.

Resource management - human

- How we provide appropriate IT training for all staff

  1. Targeted training for Teachers and Teaching Assistants
  2. Individual support given as needed
  3. Relevant training given to Admin Officers as required.
  4. Computing coordinator to keep up to date through appropriate training.

- How we provide ongoing support for all staff
  - Staff are supported by the Computing coordinator as required.
  - Staff meetings timetabled for updates in Computing skills
- Training needs are identified through:

  1. Lesson observations
  2. Monitoring of planning
  3. Discussions with teachers
  4. Analysis of FliC assessment data.

- The provision we make for staff to have personal access to Computing
  - All members of the teaching staff have their own personal laptop and iPad for use in lessons and in lesson preparation.
  - All members of staff have free and unlimited use of the Computing equipment, Email facilities and Internet. (To do this staff will need to sign the School's guidelines on Responsible Internet Use)

How we develop the ability of staff to use IT competently There are four distinct areas for consideration:

- Curriculum training.
- Technical support and training for teachers including a strategy for

  optimising the opportunities fund allocation. On induction to the school all new members of staff will be encouraged to develop their own confidence and competence in Computing.

- Administrative user support.
- Management of Computing within the classroom environment.

A number of activities will be planned according to the staff's and the school's changing needs.

TECHNICAL SUPPORT

- Who is responsible for providing technical support
  1. iMacs, Airports, Network – support bought in when necessary.
  2. PCs and iPads – Computing Coordinator/E-safety Coordinator
  3. Admin PCs – ERYC IT Services

4. Computing Coordinator/E-safety Coordinator will make the decision as

to when outside help is required. (projectors, audio-visual equipment etc)

- How you deal with technical problems

1) Turn the device on and off!
2) The Computing Coordinator/E-safety Coordinator will be the first port of call. The Coordinator will then decide whether to call on outside help.