

Head of School: Mr S Welch

Teaching and Learning Principles

Subject: Computing

<u>Aspiration, Perseverance, Collaboration, Compassion</u>

School Vision:

Our vision is to provide a safe, challenging environment.

Value each individual

Build positive foundations for learning for life.

Promote team-work, co-operation and responsibility.

Foster healthy relationships between our pupils and with adults.

School Mission Statement:

To provide inspirational opportunities to nurture:-

- Aspiration
- Perseverance
- Collaboration
- Compassion

through an environment which both challenges and supports children to develop a sense of care and compassion to be effective citizens of the future.

Subject Intent

Computing & ICT underpin modern life and the 21st Century economy.

Children need to build a vital confidence, knowledge and understanding of the way technologies work - and how internet-connected systems can be employed – in order to adapt flexibly to rapid change over the coming years.

The National Curriculum's Computing content is used as a starting point for devising our school curriculum - yet lengthy objectives are broken down into manageable, sequenced chunks for children across all year groups, with further objectives added that widen the scope and reach of the subject to reflect its ever-growing importance.

T: 01726 850503

E: hello@treverbyn.org.uk W: www.treverbn.org.uk Treverbyn Academy, Stenalees, St Austell, Cornwall PL26 8TL





Head of School: Mr S Welch

The map of objectives is framed into three broad strands: **Computer Science**, **Information Technology** and **Digital Literacy**.

All pupils at Treverbyn have the right to have rich, deep learning experiences that balance all the aspects of computing. With technology playing such a significant role in society today, we believe 'Computational thinking' is a skill children must be taught if they are to be able to participate effectively and safely in this digital world.

Our bespoke framework provides children with a broad, balanced set of learning experiences using Chromebooks, iPads and interactive Whiteboards. With strategic hardware and software choices made by schools, a multitude of high-quality, easy-to-access learning experiences are made available for all pupils.

We have 3 aims that underpin our vision:

- To develop the Computing skills of everyone in school so they are confident, safe and independent.
- To provide interactive learning for adults and children through a range of current technologies.
- To encourage independent learning for life.

Progression through the framework is based on key knowledge-based objectives being revisited and expanded upon, allowing children to build solid foundations in their long-term understanding of Computing.

Subject Implementation

- Every class will study 6 topics each year, which are focused on the three areas of Computing, ICT and Digital literacy (E-Safety)
- Links will be made between prior learning and future learning
- New topics will begin with a recap of prior knowledge gained/taught

T: 01726 850503

E: hello@treverbyn.org.uk W: www.treverbn.org.uk Treverbyn Academy, Stenalees, St Austell, Cornwall PL26 8TL

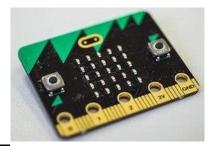




Head of School: Mr S Welch

- Computing terminology and vocabulary will be reinforced and demonstrated within the class
- Children will use a range of resources; from computer (programming) themed story books in EYFS, chrome brooks, iPads (with Aspire resourced apps), practical resources Lets go Code, programmable resources BeeBots, BBC MicroBits.











Subject Impact

We aim for every child to be able to:

• understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.

T: 01726 850503

E: hello@treverbyn.org.uk W: www.treverbn.org.uk Treverbyn Academy, Stenalees, St Austell, Cornwall PL26 8TL





Head of School: Mr S Welch

- analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- be responsible, competent, confident and creative users of information and communication technology.

Skills Progression

At Treverbyn, we use the National Curriculum objectives, framed in the Digital Learning Cornwall Progression of Knowledge document, to ensure good coverage and challenge for all. We carefully track the objectives to ensure that new learning builds on prior knowledge and consolidates understanding showing sound progression across the depth and breadth of the subject. Within lessons and topics, we ensure sufficient time is given to recall prior learning so that children are able to see and develop links within their learning. For further information please see our Skills Progression document.

Teaching and Learning Expectations

- All children are able to access computing
- Lessons will promote a love of learning
- The three strands computer science, information technology and digital literacy to be taught in blocks throughout the academic year
- Activities/questions will promote curiosity
- Digital literacy ethos to inform planning in subjects across the curriculum
- A minimum of 1 hour per week of discrete computing teaching with additional time within other subjects e.g. internet research, presentation of work, online competitions such as Sumdog and Times Table Rock Stars
- Links within English and Maths
- Recall of prior learning quizzes, coding building on knowledge, verbal discussions

Working Walls/Displays

- Computing work in Topic or Floor books and saved on the school server
- Displays of printed work with key vocabulary

T: 01726 850503

E: hello@treverbyn.org.uk W: www.treverbn.org.uk Treverbyn Academy, Stenalees, St Austell, Cornwall PL26 8TL





Head of School: Mr S Welch

• Examples of work on the school website / social media

Monitoring/Assessment

- Exit Points (e.g.: quizzes, coding games, animations)
- Summative assessment: end of unit assessments to identify children who are WTS, EXS and GDS
- Pupil Conferencing
- Learning Walk/Lesson Observations
- Work Scrutiny (examples of ICT used in books across the curriculum)

T: 01726 850503

E: <u>hello@treverbyn.org.uk</u> W: <u>www.treverbn.org.uk</u> Treverbyn Academy, Stenalees, St Austell, Cornwall PL26 8TL

