

## Computing

### Intent

We believe that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum, but overall in the day-to-day life of our school. We believe that technology can provide:

- Enhanced collaborative learning opportunities
- Better engagement of pupils
- Easier access to rich content
- Conceptual understanding of new concepts and can support the needs of all our pupils

Our aims are as follows:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils
- Enthuse and equip children with the capability to use technology throughout their lives
- Give children access to a variety of high quality hardware, software and unplugged resources
- Instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, particularly when engaging with technology and its associated resources
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school
- Provide technology solutions for forging better home and school links
- Utilise computational thinking beyond the Computing curriculum

## **Implementation**

As a school, we follow the Teach Computing Curriculum developed by the National Centre for Computer Education. The scheme of work has been developed by subject experts, based on the latest pedagogical research and teacher feedback. It provides an innovative progression framework where computing content has been organised into interconnected networks and supports the delivery of the National Curriculum for Computing. The scheme supports our teachers in delivering fun and engaging lessons, which help to raise standards and allow all pupils to achieve to their full potential. It provides strong cross-curricular links and helps to enhance other areas of the wider curriculum. Furthermore, it gives excellent supporting material for less confident teachers. Children are introduced to Microsoft Word, Excel, Publisher and Powerpoint. Online safety is an important part of our curriculum that is continuously and discreetly taught. We also take part in Safer Internet day each year.

Due to having mixed year groups at Bacton, the Teach Computing scheme has been adapted into a rolling program so that children do not repeat any content but have a breath of experience and skills. Progression of skills are clearly mapped to ensure that learning builds on current knowledge.

## **Impact**

Learning in computing will be enjoyed across the school (evidenced in Pupil Voice feedback). Teachers will have high expectations and quality evidence will be presented in a variety of forms. Children will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident using a range of hardware and software. Children will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives and know how to recognise and report online safety concerns. Pupil progress will be assessed formatively through assessment opportunities in every lesson.

## **Gathering Evidence**

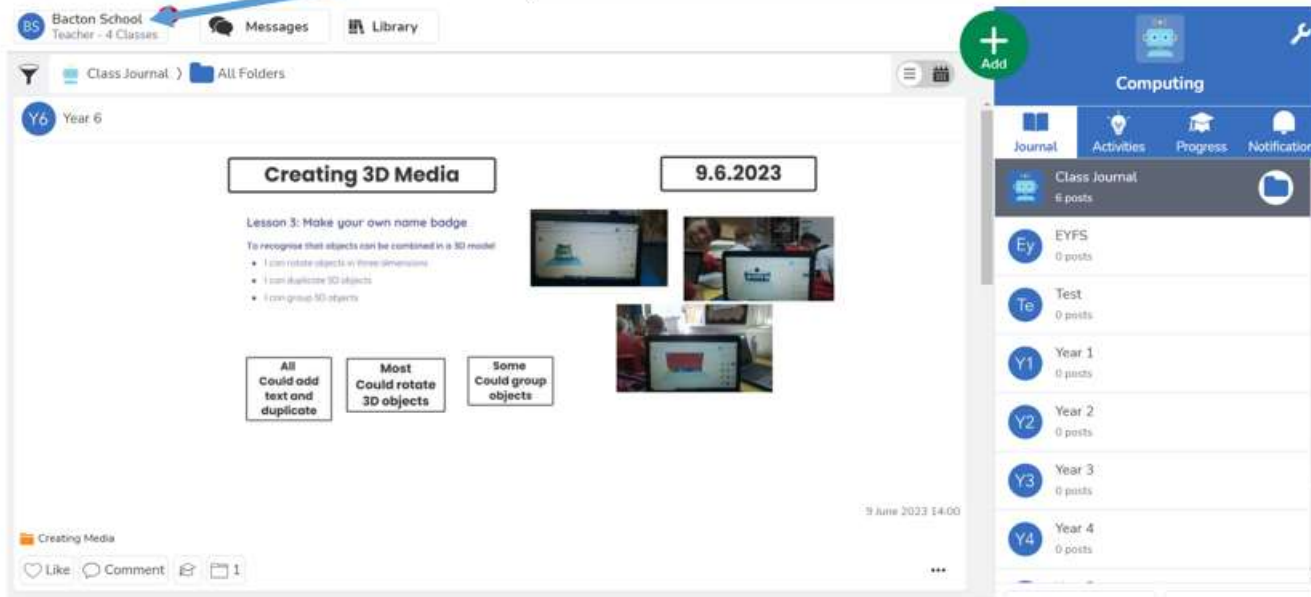
Any work completed on a Microsoft programme can be saved onto a 'shared' folder which can be accessed by both teachers and students via the local network. Within this folder, there should be a folder for each year group and then a named folder for each child in that year. Work saved here can be viewed as evidence.

Each lesson should also be recorded via a website called Seesaw (<https://app.seesaw.me/>) which can be accessed via laptop or tablet using a generic email [evidence@Bactonschool.org.uk](mailto:evidence@Bactonschool.org.uk). Please see the Subject Leader or a member of SLT for the password. Here, each year group will have 1 slide per lesson taught evidencing the teaching and learning.

Follow these steps to create an evidence slide (1 per lesson):

1. Log on and check you are in the correct subject area.

Click here and make sure you are on the correct lesson.



2. Click on 'Add' (the green circle with white +) and select 'add to student journal'.



3. Select 'drawing'



Photo



Drawing



Video



Upload



Note



Link

- On your slide you need to include the following: date, unit name, lesson number and name, LO and SC (copied from Teach Computing planning); photos of the children's work/screenshot of a class mind map/video of the children explaining their learning etc. There also needs to be a statement saying what 'all' the children could do, what 'most' of them could and what 'some' of them could (this would be the challenge). Finally, there needs to be initials of the children who did not achieve the LO and would be classed as working towards. This should be visible to teaching staff only, not children.

**Creating Media - 3D Modelling**

**Lesson 1 - Introduction to 3D Modelling**

To recognise that you can work in three dimensions on a computer


- I can add 3D shapes to a project
- I can view 3D shapes from different perspectives
- I can move 3D shapes relative to one another

All  
able to  
complete  
the 3 bullet  
points



Most  
able to also  
resize  
objects

Some  
able to  
create  
complex  
designs

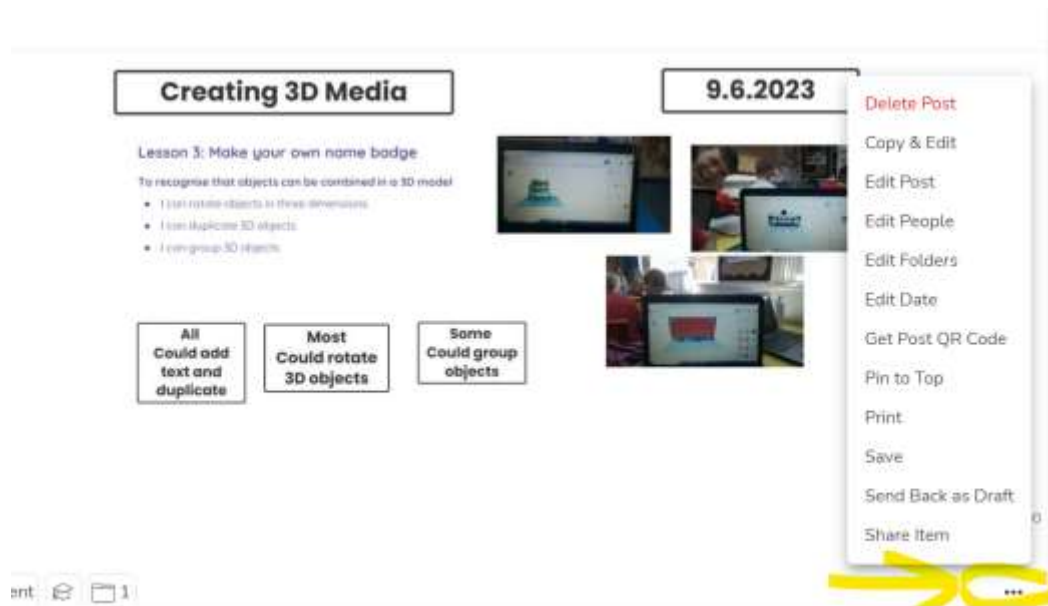
**6.6.2023**



Tinkercad

- Once the slide has been completed, click on the green tick in the top left hand corner. You will then need to select your class and click the tick again. Then you will need to select the correct curriculum area and click the green tick.
- If you need to edit the post once published, click on the 3 dots in the bottom right of the slide and it will give you the option:



The first slide of each new computing unit should be the 'learning graph' from the Teach Computing website.

### **Assessment**

For guidance on assessment and the expectations for working towards standard (WTS) and expected (EXP), please see the 'rubric' document for each unit on the Teach Computing website.

### **Sticky Knowledge**

For the sticky knowledge quizzes, children may be asked to define new subject-specific vocabulary. Additional guidance on this is available from the Subject Lead.

## National Curriculum Expectations

Computing			
	Information Technology	Computer Science	Digital Literacy
<b>Early Years</b>	<p>We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:</p> <ul style="list-style-type: none"> <li>• Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in role play.</li> <li>• Pupils gain confidence, control and language skills through opportunities to ‘paint’ on the interactive board/devices or control remotely operated toys.</li> <li>• Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets</li> <li>• Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.</li> </ul>		
<p><b>Key stage One</b> National curriculum expectations</p> <p>Pupils should be taught to:</p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions;</li> <li>• create and debug simple programs;</li> <li>• use logical reasoning to predict the behaviour of simple programs;</li> </ul>	<ul style="list-style-type: none"> <li>• use technology purposefully to create, organise, store, manipulate and retrieve digital content;</li> <li>• recognise common uses of information technology beyond school;</li> </ul>
<p><b>Key stage Two</b> National curriculum expectations</p> <p>Pupils should be taught to:</p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>	<ul style="list-style-type: none"> <li>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output;</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs;</li> </ul>	<ul style="list-style-type: none"> <li>• 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;</li> </ul>

## **Long Term Plan**

The long term plan for computing can be found on the Google shared drive and curriculum page of the school website. Each unit is taken from the Teach Computing website. These units are updated by the NCCE each year so files must be directly downloaded from the website each term to ensure most recent and relevant teaching.