



Computing 22-23

Intent, Implementation and Impact

INTENT

When planning and teaching computing at Thomas Gray, we believe that it is an essential part of the curriculum; a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects. Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. Children must be taught in the art form of 'Computational Thinking' in order to provide them essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

At Thomas Gray we realise that pupils are becoming more and more aware of technology at a young age. Therefore, it's our intent to not only educate pupils how to use technology in an academic way, but also to prepare them for using it outside of school. To do this we have employed Junior Jam to ensure our children are receiving specialised teaching.

Junior Jam is designed to teach the whole computing curriculum from Year 1 to Year 6. They do this by combining the computing curriculum with a wide range of media subjects to inspire pupils in a topic they may not have done before. It is their hope that educating pupils in topics such as music production or stop motion animation will develop new interests for them and that Junior Jam can hone this interest and that this may one day be something they choose to do as a career therefore raising aspirations.

We want to ensure that pupils cover all the national curriculum points and achieve progress using different aspects of technology and computing safely and with a deep understanding. To be able to do this, Junior Jam have set out a curriculum for computing spanning the school career of a child. This can be evidenced in the progression maps.



The computing curriculum Junior Jam have designed should run as follows:

- HT1 iJam
 - Music production (KS1 & KS2)
- HT2 iProgram
 - Programming and coding (KS1 & KS2)
- HT3 iOffice
 - Microsoft office and internet safety (KS2)
- iAnimate
 - Stop motion and 2D animation (KS1)
- HT4 iCreate
 - Animation and digital media (KS2)
 - Photography (KS1)
- HT5 iBroadcast
 - Broadcasting and digital marketing (KS2)
 - Internet safety and using digital devices safely (KS1)
- HT6 iTech
 - Technology within the wider world (KS2)
 - Filmography and video editing (KS1)

To ensure that the curriculum is progressive and differentiated from year group to year group, the curriculum is designed so that each year is placed on a specific level.

IMPLEMENTATION

Junior Jam have created a full comprehensive curriculum to be implemented across the academic year. As stated in our INTENT, they have created a curriculum that spans from Year 1 to Year 6. As this has been conceptualised and written by Junior Jam, they have full control over how they teach the national curriculum and which year group learns what content. Junior Jam provides the full framework of our content including concepts, knowledge, skills, keywords and objectives to our schools.

Junior Jam have written all of our computing activities with one or more of these three core areas in mind:

- Computer Science - the understanding of coding and programming across a range of physical devices and digital resources.
- Information Technology - the range of skills required to operate and manipulate specific programmes, systems and content.
- Digital Literacy - the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.



Junior Jam brings aspects of computational thinking to all of the activities and modules to help our children to gain independence and skills in problem solving.

Definition of computational thinking;

- Decomposition: Solve a problem by breaking it into smaller pieces.
- Pattern: Find the order and analyse the data.
- Abstraction: Ignore/take away anomalies within the pattern.
- Algorithmic Design: Create a solution using a series of ordered steps.

Junior Jam supplements the curriculum with Apple apps such as Scratch, Hopscotch, Tynker and Lightbot to ensure the greatest development within our pupils' knowledge. They also enrich our curriculum with extra resources such as headphones, complex programming booklets and animation extras to enhance the learning and give appropriate challenges to our pupils.

To ensure the pupils gain the most from activities, they also place a high value on internet safety and dedicate a whole half term to this within KS1 and KS2. Not only this, we embed internet safety knowledge at various points throughout the year. Teachers also cover some extra online safety lessons in addition to Junior Jam through Jigsaw and stand-alone lessons using National Online Safety.

As evidenced within the knowledge organisers, keywords will be taught and used frequently throughout the course. We do this in the hope of building a core language for our pupils to use when discussing computing, technology and software.

IMPACT

After the implementation of this robust computing curriculum, children at Thomas Gray will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly - safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online. As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

The success of our curriculum will be evidenced in a number of ways. It is important to us at Thomas Gray that our pupils knew why and not just how to do the things that were being asked of them. By the end of Junior Jam's course, we hope that the way we have implemented our curriculum will mean our pupils will have a deeper understanding of computing. They will understand how to use



technology and how it can benefit them, both in school and within their daily lives. We also hope it will have instilled in them a sense of balance between how much time should be spent on digital devices.

Within the lessons, our instructors monitor pupils closely to ensure progression is being made and that what we've set out to achieve through our curriculum is being met. Our instructors will do this to gauge the understanding and retention of knowledge.

We measure and evidence the impact of our courses through the following methods:

- Verbal feedback during lessons.
- Session Forms - These are weekly reports on whether the learning objective for the lesson was achieved which are accessible via our school portal for the subject leader to see.
- Course Evaluations - These are half-termly reports for each class, measuring how the class performs against a range of statements specific to the course, allowing the instructors and subject lead to track how the class performs against national expectations.
- Reporting and Assessing - These are individual grades for each child covering attainment, behaviour and progression within the course.
- Uploads - Each half term work from each class will be given back to school. This means evidence can be given to OFSTED if needed, displays can be made and, most importantly, pupils can share their hard work and new skills with their school, parents and peers.