**Being a Computer Scientist**

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| **Intent****In Computing, when a child leaves Dean Gibson we would like them to…**Show proficiency in coding for a variety of practical and inventive purposes; then being able to apply their ideas within other subjects. Children will have the ability to connect with others safely and respectfully whilst online, understanding the need to act within the law and with moral and ethical integrity whilst being aware of measures that can be taken to keep themselves and others safe online. Pupils will develop an understanding of the connected nature of devices and the ability to communicate ideas well by using applications and devices throughout the curriculum. They will be able to collect, organise and manipulate data effectively using ICT. Our aim is to provide a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Beyond teaching computing discreetly, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum.Children will leave Dean Gibson with computing experiences and abilities that are effective and transferable life skills. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future. |
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| **Enrichment**  |
| Here are Example of How we enrich the curriculum | **Whole School** |
| **Our Core Computer Scientists to explore** | * Beebot Stem Day.
* HRSE Lessons on online and media safety.
* Links with High School.
 | * Internet Safety Day.
* Teaching Online Safety.
* Cross curricular.
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| * Charles Babbage & Ada Lovelace.
* Alan Turning.
* Hedy Lamarr.
* Jack Kilby & Robert Noyce.
* Grace Hopper.
* Bill Gates.
* Steve Jobs.
* Sir Clive Sinclair.
* Tim Berners-Lee.
* Mark Zuckerberg.
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| **How Computing is taught at Dean Gibson** |
| **This is how it works:** * Lesson provided through cross curricular or discrete lessons,
* We use NCCE teach computing to support our teaching.
* Clear progression of skills developed throughout school
* Progression of knowledge developed each year
* Children will have had the opportunity to use a range of good quality tools and resources and develop competency in using them safely
* Workshops and computing days that bring topics to life

**This is what adults do:** * Teachers work collaboratively to support each other in the teaching of computing, understanding and applying current developments in the subject, and providing direction for the subject in the school.
* Teachers who show enthusiasm for the subject regardless of personal capabilities.
* Curriculum leader evaluates the strengths and areas for development in the subject and indicate areas for further improvement.
* Create a positive learning environment to encourage discussion and personal opinion.
* Ensure a safe working environment.
* Look for opportunities to use specialists and outside providers when necessary.
* Consider our curriculum drivers: curiosity, outdoors and diversity.

 **This is how we support:** * We teach Computing to all children, whatever their ability, in accordance with the school curriculum policy of providing a broad and balanced education to all children.
* Teachers adapt their teaching to the needs of children with different abilities and needs.
* Different technologies are used to allow children with special educational needs to have access and contribute to lessons.

  **This is how we challenge:** * Adaptive teaching to each child’s needs.
* Additional activities to stretch learning or develop skills
* Extra-curricular activities targeted at gifted and talented children and provided opportunities for children to share skills.
* Provide opportunities above and beyond the National Curriculum.

 **This is how we ensure all children can access the curriculum:** * EAL and SEN children are introduced to vocabulary before the lesson.
* Provide visual examples of work, especially for the younger learners.
* Peer support.
* Providing equipment that may support individuals.
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| **Impact** |
| **This is the impact of the teaching:** At Dean Gibson the children will refer to themselves as computer scientists. You will see children who confidently use technology to help them gain access to all areas of the curriculum and in different contexts. The children will be able to articulate how technology helps them on a daily basis and how it may be a part of their lives in the future. They will be able to use technology to enable them to take responsibility for their own learning at home when they need to use a blended learning approach.The children at Dean Gibson talk articulately about the dangers associated with the internet in and out of school and can explain what to do when they are faced with difficult situations. They demonstrate care, respect and resilience both on and offline.  |