

Digital Technologies Learning Matrix
Curriculum Level 6
Learning Area Whakataukī:

***Kaua e rangiruatia te hāpai o te hoe;
e kore tō tātou waka e ū ki uta.***

*Don't paddle out of unison;
our canoe will never reach the shore.*

Big Ideas			
The discipline of Digital Technologies embodies whanaungatanga; outcomes are made by people, for people, within cultural, social, and environmental contexts	Digital outcomes are created for a purpose by following established processes	The discipline of Digital Technologies embodies auahatanga; outcomes solve problems and enhance and expand human possibilities	All digital technologies are underpinned by algorithms and computer science principles
Significant Learning			
At Curriculum Level 6, ākongā will...			
<ul style="list-style-type: none"> • understand how digital technologies impact on end users by considering the following mātaḥono Māori: kotahitanga, whanaungatanga, manaakitanga, wairuatanga, kaitiakitanga, and tikanga • anticipate and find solutions to problems • demonstrate learner agency and persevere when things fail • work collaboratively and engage in talanoa, wānanga, and kōrero to share perspectives and values • recognise that new and innovative solutions to existing problems are developed through kotahitanga, and creative and critical thinking • use appropriate strategies to manage time and resources for completing a project • be aware of relevant occupational safety and health practices • understand that digital technologies and the concepts that underpin them are influenced by the people that create them and the contexts in which they are developed • understand that digital technologies and the concepts that underpin them have an impact on people, societies, and cultures • investigate and consider possible digital solutions for authentic contexts or issues • follow a technological process to design, develop, and document digital outcomes • apply appropriate tools and use information from testing to improve the quality of digital technologies outcomes • prioritise user experience in design — practise manaakitanga by applying relevant design principles, mātaḥono Māori, and usability principles • use appropriate standards and conventions for digital technologies domains • evaluate the fitness for purpose of digital technologies outcomes by considering manaakitanga, kaitiakitanga, and the outcomes' social and physical environments • understand that digital devices can collect, store, and share data, and consider the related ethical issues • understand how compression enables widely used technologies to function • understand the nature of computation and apply appropriate reasoning about the behaviour of basic programs • apply basic computational thinking skills (decomposition, abstraction, pattern recognition, algorithms, logic, and evaluation) to write and debug computer programs • understand that the cost (or computational complexity) can differ between two iterative algorithms for the same problem size. 			