Level description: Years 3 and 4

By the end of Year 4 students should have had the opportunity to broaden their computational thinking by creating simple digital solutions, individually and in groups, that involve defining problems, and designing and implementing solutions as visual programs . Students practise defining problems using design criteria given to them, and user stories developed by the class. Through practice, students improve the precision of their algorithms and implement them as visual programs . Students expand their understanding of data representation by exploring how and why the same data can be represented in different ways to meet different purposes.

Through Digital Technologies and Mathematics (Statistics), students use digital systems to acquire and process data for comparison and interpretation purposes. Students progress in their systems thinking by considering the connections between digital systems and peripherals to meet specific purposes, such as using a headset to participate in an online class discussion. They explore how digital systems interact by transmitting data , such as using a class laptop to stream videos from an online news service.

Students apply design thinking techniques to generate multiple ideas for the design of their solutions. They compare their ideas with other ideas, such as those of their classmates. They determine the success of their implemented solutions against given design criteria and co-created user stories . They also judge how well digital systems used by the public meet their needs, such as maps or transport apps to plan a trip. Through frequent practice when completing tasks and projects, students increase their confidence and fluency in using core features of common digital tools to create content individually, and when working in groups they apply agreed behaviours. Students secure their personal data by creating passwords that are hard to guess and begin to understand the risks associated with storing and sharing personal data online. They learn about the importance of protecting private data and consider the positive actions and behaviours they display when engaging with others online.

In Digital Technologies, students should have frequent opportunities for authentic learning by making key connections with other learning areas.

Achievement standard: Years 3 and 4

By the end of Year 4 students describe how people design products, services and environments to meet the needs of people, including sustainability. They process and represent data for different purposes, follow and describe simple algorithms involving branching and iteration, and implement them as visual programs. For each of the 2 prescribed technologies contexts they describe the features and uses of technologies and create designed solutions. Students select design ideas against design criteria. Students securely access and use digital systems and their peripherals for a range of purposes, including transmitting data. They communicate design ideas using models and drawings including annotations and symbols. Students plan and sequence steps and use technologies and techniques to safely produce designed solutions. They use the core features of common digital tools to plan, create, locate and share content, and to collaborate, following agreed behaviours. Students identify their personal data stored online and its risks.

By the end of Year 4 students create simple digital solutions and use provided design criteria to check if solutions meet user needs. Students process and represent data for different purposes. They follow and describe simple algorithms involving branching and iteration and implement them as visual programs. Students securely access and use digital systems and their peripherals for a range of purposes, including transmitting data. They use the core features of common digital tools to plan, create, locate and share content, and to collaborate, following agreed behaviours. Students identify their personal data stored online and recognise the risks.