

Exploring potential links between Years 5–6 Science and the Digital Technologies curriculum

Year 5 Science Strand	Content Description	Digital Technologies	Possible integration
Biological Science	Living things have structural features and adaptations that help them to survive in their environment	Creating a digital solution Branching and user input	Create a computer program that takes in user input to identify an animal by using branches of yes no questions based on an animal's adaptations. ACA Year 5 Blockly Lesson
Chemical Science	Solids, liquids and gases have different observable properties and behave in different ways	Creating a digital solution	Modelling an investigation (prediction or observed outcome) using Scratch or similar programming language. For example, how solids, liquids or gases change under conditions of heating or cooling. Incorporate user input and branching.
Earth and space sciences	The Earth is part of a system of planets orbiting around a star (the sun)	Creating a digital solution	Using Sphero robots to explore rotation of a planet and how planets revolve around the Sun. Create a model of the solar system and discuss limitations of the model. Incorporate repetition (loops)
Physical Sciences	Light from a source forms shadows and can be absorbed, reflected and refracted	Creating a digital solution	Model the way light behaves using particular materials. Will light pass through or will it be blocked. Could be a predict and test model programmed using Scratch. Classify materials transparent, opaque or translucent.

Year 6 Science	Content Description	Digital Technologies	Possible integration
Biological Science	The growth and survival of living things are affected by physical conditions of their environment	Data collection Creating a digital solution Creating a digital solution	Design a smart garden and collect data using sensors for example using BBC Microbit or a data logging equipment. Create a simulation that shows effects on growth of animals or plants as physical conditions change. Mapping the migration on Google maps of a particular animal.
Chemical Science	Changes to materials can be reversible or irreversible	Creating a digital solution	Create an animation to show a reversible reaction. Use predict and test. User input, branching and loops.
Earth and space sciences	Sudden geological changes and extreme weather events can affect Earth's surface	Data and information Collaborative project	Using a relevant context such as disaster management, students evaluate existing information systems, examine approaches to make information available to the public and assess how well they meet community needs. Collaborative project
Physical Sciences	Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources	Digital systems	Use a makey makey board to explore materials that conduct electricity. Integrate a design technology focus to make a game that uses materials that conduct electricity such as a game of skill to test your nerves. Makey Makey Projects for Years 4-6