

STEM

Digital and Design Technologies

With Ms Princi

Term 2

Learning Intentions

Year 4:

- Plan, create and communicate ideas and information independently and with others, applying agreed ethical and social protocols (ACTDIP013).
- Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input (ACTDIP011).

Year 5/6:

- Design a user interface for a digital system (ACTDIP018)
- Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)
- Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)

Year 7:

- Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)

Tasks:-

The year 4-7 classes will be learning about coding by creating video games, building in minecrafterdu and programming/controlling robots.

1. Working co-operatively as a team of four to build a home using natural, human, and capital resources. We will complete the task using minecrafterdu in multi-player mode.
2. Design a roller-coaster in minecrafterdu. Apply signs to detail your understanding of how forces can be used to move objects.
3. As a team of 2-4 students design a video game in Scratch with the theme 'Transformation'. Create a game design document to explain the rules, background story and gameplay.
4. Design a dog park/maze in minecrafterdu. Create a model of the dog park/maze using recycled materials. Maneuver a Sphero robot and Edison robot around your model.

