### UNIT: Programming - Game Design

**TERM 3 TOPICS**

**Students will learn to use a graphical programming language to design a game**

- **Design**, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition)
- **Design** a user interface for a digital system, generating and considering alternative designs
- **Implement** digital solutions as simple visual programs involving branching, iteration (repetition), and user input
- **Explain** how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications

**ASSESSMENT**

- Design, Develop and Evaluate an Interactive Game using *Scratch*

**DUE DATE**

- Week 5: Hand out
- Week 7: Monitor
- Week 9: Due:
  - **6A** Wednesday 6th of September Lesson 1
  - **6B** Wednesday 6th of September Lesson 5

---

### UNIT: Programming - EV3 Robotics

**TERM 4 TOPICS**

**Students will be given a range of problems to solve using the LEGO EV3 robots and their programming skills**

- **Analyse** and visualise data using a range of software to create information; and use structured data to model objects or events
- **Design** algorithms represented diagrammatically and in English; and trace algorithms to predict output for a given input and to identify errors
- **Design** algorithms represented diagrammatically and in English; and trace algorithms to predict output for a given input and to identify errors
- **Create** and communicate interactive ideas and information collaboratively, taking into account social contexts
- **Plan** and manage projects, including tasks, time and other resources required, considering safety and sustainability

**ASSESSMENT**

- In class practical activities from the *Robotics Workbook* and *Robotics Exam*

**DUE DATE**

- Week 1: Hand out
- Week 5: Monitor
- Week 8: Exam held, activities and booklet due:
  - **6A** Wednesday 22nd November Lesson 5
  - **6B** Tuesday 21st November Lesson 1

---

This work plan was last updated on Tuesday, 18 July 2017. The contents are subject to change – students will be advised in advance of any changes - regularly check for updates.