***Year* 11** **Science** **Electronic Signs**	***Strand:*** **Using physics. Investigate how physics knowledge is used in a technological or biological application.**

Key Competencies

Managing self.

Thinking.

Relating to others.

Enterprising Attributes

Resilience.

Creative and lateral thinking.

Decision making.

Problem solving.

Content

Soldering.

Repair faults.

Number calculations.

The Learning Context

An application of physics – Electronic Signs
Objective:

To identify various electronic components, their uses in circuits and how components and circuits can be applied in the outside world.

Process

- Teach the basics of components and circuits as normal.
- In small groups, design and plan a sign for a specific purpose for some part of the school.
- Students need to develop an understanding of the nature of the sign and what it will be used to do. Decisions about aspects such as colours, flashing or non flashing should be discussed in relation to the particular purpose of the sign.
- The size of the sign should be considered.
- Cost calculation in relation to building the particular sign should be addressed.
- The plan should involve setting deadlines for each aspect of the construction.
- A prototype could be constructed prior the final product.
- An approach to the school should be developed with a fully worked proposal for the construction and use of such a sign/s in the school.

Assessment Ideas

- Product evaluation.
- Peer/ Group evaluation.
- Student Learning stories.