Technology NCEA Level 1 Achievement Standards: Electronics Technology

Compulsory Core (20 credits)	value	Draft activities
AS90045 (1.1) Develop a Technological Solution to address a given brief	6 credits internally assessed	**Timer design suitable for timing dragster races** Stakeholders (*Client(s), users, teacher, student, parents, public, special interest groups, competitors etc).* Design Specification:(*Time, cost, materials, safety, production facilities, knowledge, expected use, current models/ uses, finish, appearance, function, patent/ copyright, codes of practice, structure (mechanical, electronic, software), aesthetics etc).* Plan: (including timeline for learning with milestones, allocation of resources, consultation plan and re-evaluation) Production: (prototype, final evaluation and evidence of compliance with brief).
AS90047 (1.3) develop a technological solution by widening the use of an existing technology	6 credits internally assessed	Take existing electronic modules, kitsets and/or designs and develop a technological solution to address the brief in AS90045, or other supplied brief. This may be done by modifying existing modules, kitsets or designs, integrating existing modules, kitsets or designs with appropriate interfacing technology or utilising PICAXE and PICPATCH boards and developing a programme to write to the eeprom.
AS90050(1.6) Present a technological solution that addresses the requirements of a brief	4 credits externally assessed	Working Prototype from AS90045 task finished to a high standard, supporting documentation (must include: documentation, drawings showing brief addressed. May include: circuit and/or mechanical diagrams, programme listings etc.) Production: (prototype, final evaluation and evidence of compliance with brief).
AS90049 (1.5) demonstrate understanding of relevant technological knowledge	4 credits externally assessed	Underpinning relevant knowledge: May include: component functions, circuit symbols, basic electronic/ mechanical systems, circuit theory, calculations, PCB techniques and layout diagrams, programming techniques, programme comments etc).
Extension		
AS90051(1.7) describe the interactions between a technological innovation and society.	4 credits externally assessed	Research topic: Explain key technological innovations and advances made in timimng products in society and analyse both the impact the innovation has had on society and the impact society has had on the innovation.