

**Teacher(s):** Cameron Major

**Faculty:** Design & Technology

**Unit Duration:** Semester 1, 2020

The **Australian Curriculum Achievement Standards in Technologies: Design & Technology** reflects the distinctive practices of each subject area, and with learning in an increasingly technological and complex world, it is important to develop knowledge and confidence to critically analyse and creatively respond to design challenges. Knowledge, understanding and skills involved in the design, development and use of technologies are influenced by and can play a role in enriching and transforming societies and our natural, managed and constructed environments.

Design and Technologies actively engages students in creating quality designed solutions for identified needs and opportunities across a range of technologies contexts.

Students manage projects independently and collaboratively from conception to realisation. They apply design and systems thinking and design processes to investigate ideas, generate and refine ideas, plan, produce and evaluate designed solutions. They develop a sense of pride, satisfaction and enjoyment from their ability to develop innovative designed products, services and environments. Through the practical application of technologies including digital technologies, students develop dexterity and coordination through experiential activities.

Design and Technologies motivates young people and engages them in a range of learning experiences that are transferable to family and home, constructive leisure activities, community contribution and the world of work.

**Australian Curriculum Achievement Standard:** By the end of Year 8, students explain factors that influence the design of products, services and environments to meet present and future needs. They explain the contribution of design and technology innovations and enterprise to society.

Students explain how the features of technologies impact on designed solutions and influence design decisions for each of the prescribed technologies contexts.

Students create designed solutions for each of the prescribed technologies contexts based on an evaluation of needs or opportunities. They develop criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas and designed solutions and processes. They create and adapt design ideas, make considered decisions and communicate to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques.

Students apply project management skills to document and use project plans to manage production processes. They independently and safely produce effective designed solutions for an intended purpose.

**Unit Description: Unit Description:** During this semester students will be researching and exploring design solutions.

The important components in this semester of study will be workshop safety, the use of ICT in sourcing and compiling their research, utilising the Human Centred Design Process to guide design processes and the practical skills acquisition component of the safe use of hand tools and machinery in the workshop to produce their design solution.

Students will design and create a steel carrier.

**Essential Learning Outcomes developed from the Achievement Standards of the Australian Curriculum:**

1. Create designed solutions for metal technologies based on an evaluation of needs or opportunities.
2. Create and adapt design ideas and make considered decisions.
3. Communicate to different audiences using appropriate technical terms and graphical representations.
4. Independently and safely produce effective designed solutions for the intended purpose.

**Materials and Equipment Required:** Students are expected to arrive at every class with a class book/folder to write notes for that subject, a writing instrument and a Chromebook or similar, appropriate electronic device. Students are required to provide the following additional materials and equipment: *Clear Sleeve Folder, Personal Device, Pen & Pencil.*

**Absences from Class:** Students who miss classes due to absence or excursions must negotiate with the class teacher to catch up missed work.

**Use of IT in Class:** A Google Classroom has been set up for this class. Students will be required to log into this Google Classroom regularly to access course material. Students must bring their Chromebook to all lessons, however, the use of these devices in class will be at the discretion of the teacher.

**Homework:** Any homework will be directly related to instruction and course requirements, will be assessed appropriately and may impact upon student grades. Examples of homework may include; catch up on missed classwork, revision of classwork, study for tests, assignment work, or preparation for a class presentation.

**Late Work:** Extensions may be negotiated with individual teachers before the due date

**Plagiarism:** Plagiarism is copying or using another's work and claiming it as your own. This includes copying, cutting and pasting text or using ideas directly from a text, the internet or some other source without appropriate referencing. If this happens, work may not be graded and students will be asked to discuss the assessment with the classroom teacher and Executive Teacher for that subject. Parents may be contacted as part of this process.

**Assessment Portfolio:** This contains evidence of work from the opportunities the students have been provided to demonstrate elements of the achievement standard.

**Portfolio Assessment Tasks for this subject will include:**

	<b>Week / Date Due</b>	<b>Essential Learning</b>
1. Workshop Safety Workbook & Steel Research Infographic	<b>4</b>	<b>3 &amp; 4</b>
2. Smart Phone Holder, Design Process Research and Design Workbook	<b>7</b>	<b>1,2, 3 &amp; 4</b>
3. Workshop practices & Steel Carrier project realization	<b>15</b>	<b>1 &amp; 4</b>
4. Metal Tech projects & Course Evaluation	<b>17</b>	<b>3</b>

**A-E Reporting Grade Descriptors** These are the grades and grade descriptors for reporting at the end of each Semester.

<b>A</b>	Demonstrating <b>excellent</b> achievement of what is expected (Consistently achieving a proficiency level of 4 or above in each of the Essential Learnings)
<b>B</b>	Demonstrating a <b>high</b> achievement of what is expected (Consistently achieving a proficiency level of between 3 and 4 in each of the Essential Learnings)
<b>C</b>	Demonstrating <b>satisfactory</b> achievement of what is expected (Achieving a proficiency level of 3 across the Essential Learnings)
<b>D</b>	Demonstrating <b>partial</b> achievement of what is expected (Achieving a proficiency of between 1 and 3 across the Essential Learnings)
<b>E</b>	Demonstrating <b>limited</b> achievement of what is expected (Achieving a proficiency of 1 or less in each of the Essential Learnings)

**S Status** is awarded where unavoidable circumstances have prevented assessment. Must be negotiated with the Principal.

#### **Grade Descriptors and the "C" grade**

In ACT public schools the Australian Curriculum Achievement Standard is aligned with a 'C' grade. The 'C' grade indicates that your child has demonstrated a satisfactory level of knowledge, understanding and skill in relation to the Achievement Standard.

#### **Appeals**

*A student must initiate an appeal for any grade with their subject teacher. If a student is dissatisfied with that initial process, they must pursue further appeal through the Faculty Executive Teacher for that subject.*

#### **Executive Teacher**

*Michelle Coleman*

14/02/2020