

## Australian Curriculum: Design and Technologies

### Foundation to Year 2

#### BAND DESCRIPTION

Learning in Design and Technologies builds on concepts, skills and processes developed in the Early Years Learning Framework, revisiting, strengthening and extending these as needed.

By the end of Year 2 students will have had the opportunity to create designed solutions at least once in each of the following technologies contexts: Engineering principles and systems; Food and fibre production and Food specialisations; and Materials and technologies specialisations. Students should have opportunities to experience designing and producing products, services and environments. This may occur through integrated learning.

In Foundation to Year 2 students explore and investigate technologies – materials, systems, components, tools and equipment – including their purpose and how they meet personal and social needs within local settings. Students develop an understanding of how society and environmental sustainability factors influence design and technologies decisions. Students evaluate designed solutions using questions such as 'How does it work?', 'What purpose does it meet?', 'Who will use it?', 'What do I like about it?' or 'How can it be improved?' They begin to consider the impact of their decisions and of technologies on others and the environment including in relation to preferred futures. They reflect on their participation in a design process. This involves students developing new perspectives, and engaging in different forms of evaluating and critiquing products, services and environments based on personal preferences.

Using a range of technologies including a variety of graphical representation techniques to communicate, students draw, model and explain design ideas; label drawings; draw objects as two-dimensional images from different views; draw products and simple environments and verbalise design ideas.

They plan (with teacher support) simple steps and follow directions to complete their own or group design ideas or projects, and manage their own role within team projects. Students are aware of others around them and the need to work safely and collaboratively when making designed solutions.

#### ACHIEVEMENT STANDARD

By the end of Year 2, students describe the purpose of familiar products, services and environments and how they meet the needs of users and affect others and environments. They identify the features and uses of technologies for each of the prescribed technologies contexts.

With guidance, students create designed solutions for each of the prescribed technologies contexts. They describe given needs or opportunities. Students create and evaluate their ideas and designed solutions based on personal preferences. They communicate design ideas for their designed products, services and environments using modelling and simple drawings. Following sequenced steps, students demonstrate safe use of tools and equipment when producing designed solutions

# Design

#### CONTENT DESCRIPTIONS

##### Design and Technologies knowledge and understanding

###### *Technologies and society*

Identify how people design and produce familiar products, services and environments and consider sustainability to meet personal and local community needs (ACTDEK001)

###### *Technologies contexts*

Explore how technologies use forces to create movement in products (ACTDEK002)

Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTDEK003)

Explore the characteristics and properties of materials and components that are used to produce designed solutions (ACTDEK004)

##### Digital Technologies processes and production skills

###### *Creating designed solutions by:*

###### *Investigating and defining*

Explore needs or opportunities for designing, and the technologies needed to realise designed solutions (ACTDEP005)

###### *Generating and designing*

Generate, develop and record design ideas through describing, drawing and modelling (ACTDEP006)

###### *Producing and implementing*

Use materials, components, tools, equipment and techniques to safely make designed solutions (ACTDEP007)

###### *Evaluating*

Use personal preferences to evaluate the success of design ideas, processes and solutions including their care for environment (ACTDEP008)

###### *Collaborating and managing*

Sequence steps for making designed solutions and working collaboratively (ACTDEP009)