

Package it better

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Level 3 and 4 investigating outcomes

Student	Stage	Key Learning Area	Date
		Science	

Task	Students plan and conduct a product evaluation of the effectiveness of their prototype package.
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	Investigating unit outcomes	Beginning	Developing	Achieving
Level 3	Plan investigations and product evaluations using models and technical terms showing awareness of the need for fair testing.	Students can describe what a fair test is.	Students can plan investigations and product evaluations using their knowledge of fair testing.	Students can use their knowledge of fair testing to plan investigations and product evaluations using models and technical terms to explain their investigation process and results.
	Make and record observations using a table.	Students can make observations.	Students can make and record observations.	Students can make and record observations, representing the data in a table.

	Investigating unit outcomes	Beginning	Developing	Achieving
Level 4	Change one factor at a time during an investigation and test sufficient samples to make reliable conclusions.	Students identify factors that effect the investigation.	Students can change one factor at time when investigating and perform tests.	Students can change one factor at a time when performing tests, ensuring sufficient examples are tested so reliable conclusions are made.
	Plan investigations and product evaluations involving a control and repeat trials or replicates.	Students can plan an investigation identifying a controlled variable.	Students can plan repeat or replicate trials, identifying a controlled variable.	Students can plan repeat or replicate trials, explaining the purpose and need for each type of investigation.
	Analyse patterns and make evidence based conclusions from results recorded in investigations and product evaluations.	Students can identify patterns.	Students can identify patterns in the investigation results.	Students can analyse patterns in investigations and product evaluations and draw evidence-based conclusions from the investigation results.

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Level 3 and 4 conceptual outcomes

Student	Stage	Key Learning Area	Date
		Science	

Task	Students reflect on their learning and represent what they know about materials, packages and the design process.
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	Conceptual unit outcomes	Beginning	Developing	Achieving
Level 3	Describe the characteristics of packages and the properties of materials used to make them.	Students can identify different packages and the materials used to make them.	Students can describe the characteristics of packages.	Students can describe the characteristics of packages and the different properties of materials used to make the packages.
	Explain how and why materials are chosen for particular purposes.	Students can identify different materials.	Students can identify different materials used for particular purposes.	Students can explain how materials are tested for suitability and why they are chosen for particular purposes.
	Identify key design features and environmental effects of products and processes used to make packages.	Students can identify different features of products.	Students can identify different features of packages and the environmental implications of the product.	Students can identify the key design features and environmental implications of products and describe the processes used to make them.
	Identify design criteria that reflect the design brief.	Students can identify the purpose of their package.	Students have an understanding of design criteria and its purpose.	Students can devise design criteria that reflect their design brief and the purpose of their package.

	Conceptual unit outcomes	Beginning	Developing	Achieving
Level 4	Explore relationships between the properties of materials and their use.	Students can identify materials that packages are made of.	Students can explore the properties of materials that packages are made of.	Students can explain the relationship between the properties of a material and their use in making packages.
	Explain options and reasons for selection of materials and the design of a package.	Students can identify properties of different materials and their use in making packages.	Students can design a package using materials selected based on their properties.	Students can design a package, explaining reasons for the selection of materials and design of the package.
	Generate package designs based on a design brief, that take into account some social and environmental implications.	Students can identify the social and environmental implications of the production of packages.	Students can use a design brief to create a package.	Students can use a design brief to design a package, explaining the social and environmental factors influencing its design.
	Suggest creative solutions to a package and safely deliver a fragile gift.	Students can identify the criteria of a package to safely deliver a fragile gift.	Students can devise creative solutions for their package to ensure it delivers a fragile gift safely.	Students use their designed package to safely deliver a fragile gift.