

Title	Demonstrate knowledge of the biology of the sea urchin		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of, the habitat, distribution, and features of New Zealand sea urchin; anatomical features of the New Zealand sea urchin; feeding, reproduction and life cycle of the New Zealand sea urchin; the factors that impact on the growth of the New Zealand sea urchin; and abnormal features and/or behaviours that could indicate potential New Zealand sea urchin health issues.
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Classification	Seafood > Aquaculture
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Available grade	Achieved
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Guidance Information

Definitions

Sea urchin refers to the New Zealand sea urchin of which the Maori name is kina.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the habitat, distribution, and features of New Zealand sea urchin and its natural habitat.

Performance criteria

- 1.1 Identify the scientific name of New Zealand sea urchin.
- 1.2 Describe the distinguishing features of the New Zealand sea urchin in terms of appearance.
- 1.3 Describe the habitat and distribution of the New Zealand sea urchin.

Outcome 2

Locate and identify anatomical features of the New Zealand sea urchin.

Performance criteria

2.1 Locate and identify the external anatomical features.

Range test, spines, tube feet, anus, mouth.

2.2 Locate and identify the internal anatomical features.

Range aristotle lantern, gonad or roe, stomach.

Outcome 3

Demonstrate knowledge of feeding, reproduction, and life cycle of the New Zealand sea urchin.

Performance criteria

3.1 Describe the feeding method and food sources of the New Zealand sea urchin.

3.2 Describe what occurs at each stage of the reproductive cycle of the New Zealand sea urchin.

Range gonad development, triggers for spawning, fertilisation.

3.3 Describe what occurs at each stage of the life cycle of the New Zealand sea urchin.

Outcome 4

Demonstrate knowledge of factors that impact on the growth of the New Zealand sea urchin.

Range may include but is not limited to – water temperature, water quality, weather patterns, food availability, habitat, stress, predators; evidence is required for four factors.

Performance criteria

4.1 Describe factors that can affect the growth of the New Zealand sea urchin and the impact of each factor.

Outcome 5

Demonstrate knowledge of abnormal features and/or behaviours that could indicate potential New Zealand sea urchin health issues.

Performance criteria

5.1 Describe abnormal features and/or behaviours that could indicate a potential New Zealand sea urchin health issue.

Range two abnormal features and/or behaviours.

- 5.2 Describe the action to take if abnormal features and/or behaviours are identified and the importance of ensuring this action is taken.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 September 2003	31 December 2012
Review	2	24 August 2006	31 December 2012
Review	3	17 June 2011	31 December 2019
Review	4	1 November 2018	N/A

Consent and Moderation Requirements (CMR) reference	0123
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.