

# Provide options for language, mathematical expressions, and symbols

A suggestion for implementing the strategy  
'Provide multiple means of Representation'  
from the Guide: [Universal Design for Learning](#)

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## Includes:

- Overview
- Access to new language
- Understanding across languages
- Use multiple media
- Reflection questions
- Useful resources

Inclusive Education

From

Guide: [Universal Design for Learning](#)

Strategy: [Provide multiple means of Representation](#)

Suggestion: [Provide options for language, mathematical expressions, and symbols](#)

Date

30 May 2025

Link

[inclusive.tki.org.nz/guides/universal-design-for-learning/provide-options-for-language-mathematical-expressions-and-symbols](https://inclusive.tki.org.nz/guides/universal-design-for-learning/provide-options-for-language-mathematical-expressions-and-symbols)

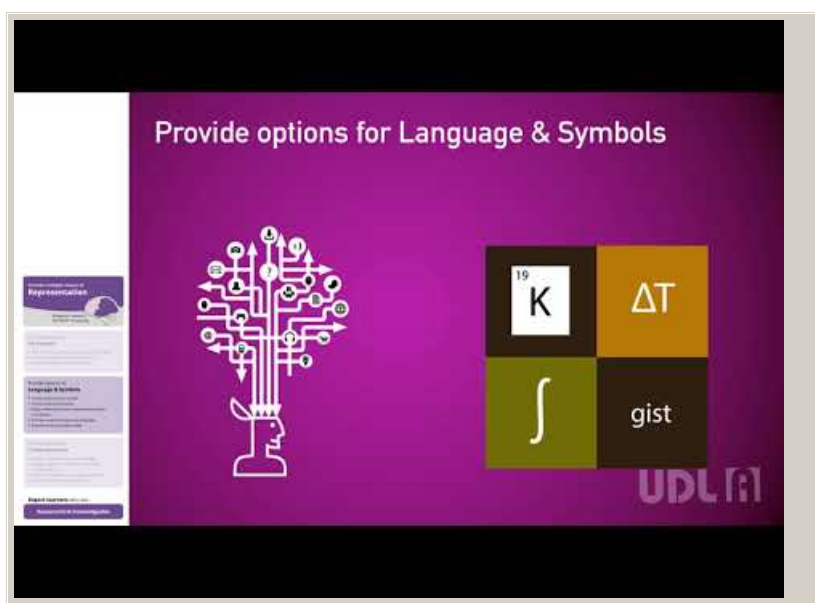
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## Overview

Explore the 'language' guideline.

Recognise which approaches and strategies are already part of your practice.

Take note of anything you hadn't considered before.



Video hosted on Youtube <http://youtu.be/rmnPiU6dMns>

Closed Captions

Source:

[UDLA LACOE](#)

<https://www.youtube.com/channel/UCZMomkDLikL-sWPoKTt-otQ/featured>

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## Access to new language

To support understanding of new vocabulary and unfamiliar symbols:

Examples of support:

- provide illustrations connected to students' experiences
- use diagrams and visuals alongside
- pre-teach important concepts and vocabulary
- provide opportunities to build vocabulary together
- encourage use of online dictionaries (for example, maths dictionaries)
- embed glossaries or word definitions within online learning environment
- explicitly teach vocabulary through concrete objects and demonstrations.

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## Understanding across languages

Students highlight the need for teachers to focus on supporting understanding when communicating.



Video hosted on Vimeo <http://vimeo.com/85294786>

[View transcript](#)

Source:

[Pasifika Education Community \(NZ\)](#)

<http://pasifika.tki.org.nz/Media-gallery/Effective-teaching-for-Pasifika-students/Student-advice-for-teachers2>

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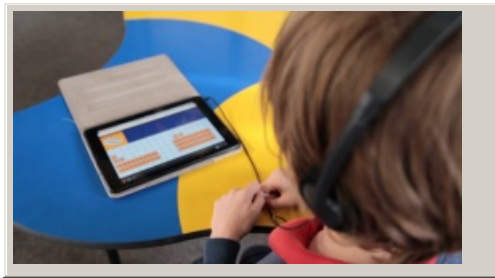
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## Use multiple media

Felix is a Year 5 student with dyslexia.

Having the option to use video supports his understanding of new concepts.



Video hosted on Vimeo <http://vimeo.com/105617225>

Closed Captions

**Source:**

[Enabling e-Learning \(NZ\)](#)

<http://elearning.tki.org.nz/Teaching/Inclusive-classrooms/Universal-Design-for-Learning/Using-an-iPad-to-support-learning>

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## Reflection questions

How will I clarify important vocabulary (for example, embedded support, highlight terms)?

How will I reduce the barriers for decoding of text (for example, text to speech, digital text)?

How will I support second language learners?

What are alternative ways to promote understanding of language (for example, dominant language, link key vocabulary, electronic tools)?

How will I incorporate multiple media to support understanding of text (for example, animation, storyboard, illustrations, simulations, images, or interactive images)?

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## Useful resources



### Design options for language and symbols (UDL Guideline)

This UDL guideline helps educators ensure multiple representations of information are available to support accessibility, clarity, and shared understanding for all learners.

This guideline supports the UDL Representation principle.

Publisher: CAST (2024)

[Visit website](#)



### Illustrated mathematics dictionary

A online maths dictionary with easy-to-understand definitions, illustrations, and links to further reading.

Publisher: Maths Is Fun

[Visit website](#)

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