

# 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

**Overview** 

#### Includes:

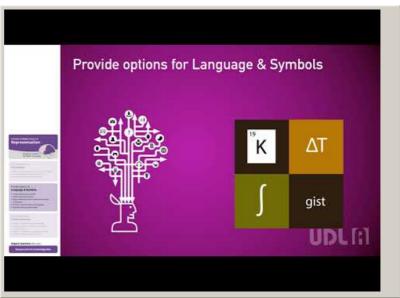
Access to new language Understanding across languages Use multiple media Reflection questions Useful resources

#### 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-sWPoKTtotQ/featured

#### 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.

## **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-Pasifikastudents/Student-advice-for-teachers2

# 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/Inclusiveclassrooms/Universal-Design-for-Learning/Using-an-iPad-tosupport-learning

## **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)?

#### **Useful resources**

www

Illustrated mathematics dictionary

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

Publisher: Maths Is Fun

Visit website



UDL Guideline Language, Math Expressions, Symbols

Supporting resources, including video to support the guideline Language, Math Expressions, Symbols

Publisher: CAST

Visit website

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