

Digital Tools to Support Inclusive Classrooms: UDL in Action

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Workshop Intentions

We will:

explore the principles of Universal Design for Learning (UDL) and how they can be used to enhance accessibility to the curriculum

become familiar with accessibility features on tablet devices, internet browsers and online resources which support the diverse learning needs of all pupils

reflect on how digital technologies can support the principles of UDL in the classroom setting.

Digital Strategy for Schools to 2027



Enhance inclusion, equity, learner participation and personalisation through the use of digital technologies by providing clear guidance and support.

Digital Strategy for Schools to 2027, p.21



Technology in Education

Primary Curriculum Framework

PARTNERSHIPS

Partnerships and collaboration between schools, families, and communities enrich and extend children's learning by acknowledging and supporting their lives in and out of school.

PEDAGOGY

Teachers use appropriate and evidence-based pedagogical approaches and strategies to foster children's engagement. ownership, and challenge. Such pedagogical approaches and strategies connect with children's life experience, circumstances, strengths, and interests.

RELATIONSHIPS

Caring relationships within the school community support and impact positively on children's engagement, motivation, and learning.

LEARNING ENVIRONMENTS

Children's learning is shaped and nurtured by the physical environment, indoors and outdoors. These diverse environments encourage children's independence, and stimulate and support their learning across the curriculum.

PRINCIPLES OF LEARNING.

demonstrate agency as the capacity to act independently and to make choices about and in their learning. Curriculum experiences provide them with creativity, and collaboration.

TRANSITIONS & CONTINUITY

TEACHING, AND

ASSESSMENT

Children's prior learning, self-worth, and identity are built upon as they move from home to preschool and on to junior infants, and as they progress through primary school. This provides important foundations for learning as they move to post-primary school.

Figure 1: Principles of learning, teaching, and assessment

INCLUSIVE EDUCATION & DIVERSITY

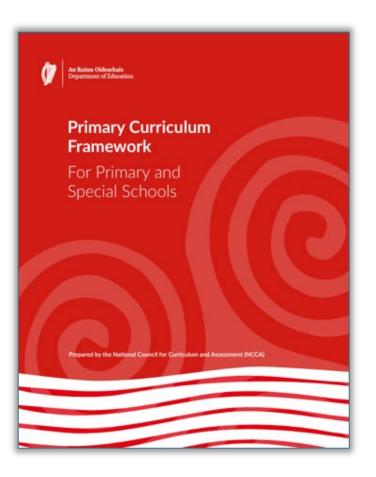
Inclusive education provides for equity of opportunity and participation in children's learning. Inclusive education celebrates diversity and responds to the uniqueness of every child.

ENGAGEMENT & PARTICIPATION

Children are active and opportunities for decision-making,

ASSESSMENT & PROGRESSION

Meaningful assessment is collaborative and integral to high-quality learning and teaching. Involving children, teachers, parents, and others. it provides information which enhances teaching and informs and supports progression in children's learning across the curriculum.



Reflection - Technology for Inclusion



wooclap.com Code: AQECZY How do you currently use digital tools or resources to support your pupils' learning needs?







Universal Design for Learning (UDL)

"Universal Design for Learning (UDL) is a set of principles for curriculum development that give all individuals equal opportunities to learn, including students with disabilities."

"This approach is underpinned by research in the field of neuroscience and is designed to improve the learning experience and outcomes for all learners."

ahead.ie/udl

Overview of UDL



Video



Adapted from: Universal Design for Learning: Theory and Practice Available at udltheorypractice.cast.org





Multiple Means of Engagement



Choice





Multiple Means of Representation







Different Formats





Multiple Means of Action and Expression







UDL in Practice



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'The goal of UDL is **learner agency** that is purposeful and reflective, resourceful and authentic,

strategic and action-oriented.' CAST, 2024



Add options for learners



Meaningful choice



Flexible methods



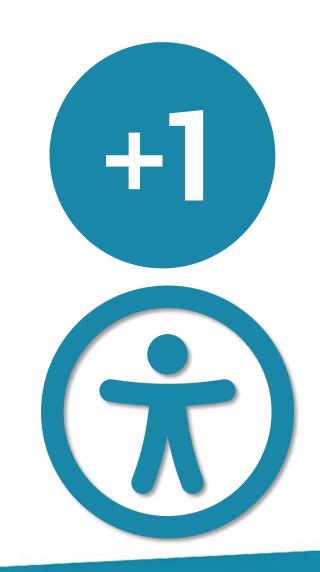
Removing barriers



"Plus One" Approach

"...a way to think of how you are teaching, the materials you supply your students, the ways students can interact with you and each other, and the assignments you ask them to do, and to add one more option."

Behling and Tobin, 2018.







UDL Guidelines (Updated July 2024)

The Universal Design for Learning Guidelines

The goal of UDL is learner agency that is purposeful & reflective, resourceful & authentic, strategic & action-oriented.

Design Multiple Means of **Engagement**



Design Multiple Means of **Representation**



Design Multiple Means of Action & Expression



Design Options for

Welcoming Interests & Identities

- Optimize choice and autonomy
- · Optimize relevance, value, and authenticity
- Nurture joy and play
- · Address biases, threats, and distractions

Design Options for

Perception

- Support opportunities to customize the display of information
- · Support multiple ways to perceive information
- Represent a diversity of perspectives and identities in authentic ways

Design Options for

Interaction

- Vary and honor the methods for response, navigation, and movement
- Optimize access to accessible materials and assistive and accessible technologies and tools

Design Options for

Sustaining Effort & Persistence

- · Clarify the meaning and purpose of goals
- · Optimize challenge and support
- Foster collaboration, interdependence, and collective learning
- · Foster belonging and community
- · Offer action-oriented feedback

Design Options for

Language & Symbols

- · Clarify vocabulary, symbols, and language structures
- Support decoding of text, mathematical notation, and symbols
- Cultivate understanding and respect across languages and dialects
- Address biases in the use of language and symbols
- · Illustrate through multiple media

Design Options for

Expression & Communication

- · Use multiple media for communication
- Use multiple tools for construction, composition, and creativity
- Build fluencies with graduated support for practice and performance.
- Address biases related to modes of expression and communication

Design Options for

Emotional Capacity

- · Recognize expectations, beliefs, and motivations
- Develop awareness of self and others
- · Promote individual and collective reflection
- · Cultivate empathy and restorative practices

Design Options for

Building Knowledge

- Connect prior knowledge to new learning
- Highlight and explore patterns, critical features, big ideas, and relationships
- Cultivate multiple ways of knowing and making meaning
- Maximize transfer and generalization

Design Options for

Strategy Development

- Set meaningful goals
- Anticipate and plan for challenges
 Organize information and resources
- · Enhance capacity for monitoring progress
- Challenge exclusionary practices

http://tiny.cc/udlguide

Oide Good Practice Video



Video



Multiple Means of Engagement





Choice Boards



Volcano Choiceboard





Video



Reading



Task

How volcanoes are created

Volcanic Eruption Explained How do volcanoes erupt?

Podcast

What is a Volcano?

Research a volcano and sketch a diagram

The study of volcanoes

Iceland Volcano
Eruption
2021

The Volcanic
Eruption

Adventure

Volcano Facts

Complete the 3 2 1 activity

Mount St. Helen's Case Study Mount
St. Helen's
Eruption 1980

The Eruption of Mount St.
Helens

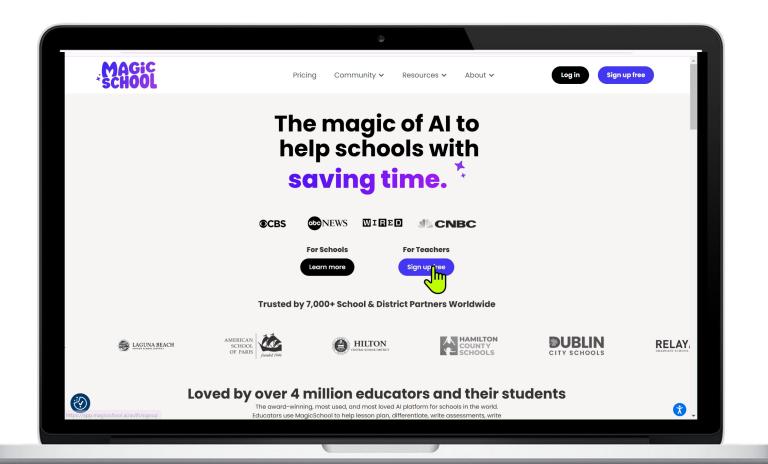
Britannica:
Mount St.
Helens

Design a timeline of the eruption, include key information

Choiceboard



Magicschool.ai







Sign up



Magic School Tools

Tools

Create Customised Materials

Build lesson plans, rubrics, and assessments matching your objectives.











Differentiate for Success

Adjust texts and materials to meet students' diverse learning needs.











Text Translator

Engage learners and remove barriers.

Generate choice boards, clear step-by-step directions and make it relevant to learners' interests.











Assignment Scaffolder

Generate Original Content

Create engaging, relevant, and personalised content for your students.





Informational



Math Story Problems





Lesson Hook



Creating a Choice Board





Create an account on Magic School Al.

Search for the **Choice Board tool.**



Create a Choice Board suitable for your own context.



What are the possibilities for using a tool like this?

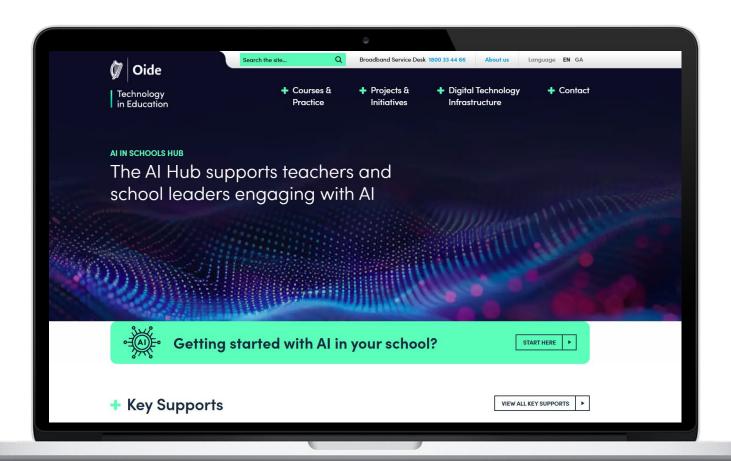
What are the considerations?





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Oide Technology in Education (TiE) Al Hub







Al in Schools Hub

Webwise AUP AI Statements



Educational Integration and Support

The following statements are intended as a guide for schools to collaboratively review, discuss, and agree upon their approach to integrating Al into learning, teaching, and assessment.

- SCHOOL NAME recognises the potential benefits of Artificial Intelligence (AI) in education and is committed to its responsible and ethical use within our learning environment.
- SCHOOL NAME provides training and professional development opportunities for teachers to effectively utilise Al tools in their teaching practices, ensuring they stay up to date with technological advancements.
- The selection of Al tools and technologies in SCHOOL NAME aligns with educational goals, including supporting learner agency and promoting critical thinking.
- Al technologies are integrated into the curriculum to enhance learner outcomes and experiences.
- SCHOOL NAME integrates Al into its educational processes to enhance learning, foster innovation, and promote the development of critical skills.
- SCHOOL NAME will make necessary adjustments to our school's adoption and integration of Al based on review and feedback.
- A regular review of the impact of AI on learning outcomes is to be conducted to ensure continuous improvement.



The AUP Generator has been updated to include twenty-one statements that specifically address the use of artificial intelligence within our school context.

http://tiny.cc/aupgenerator





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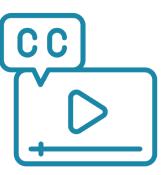
Multiple Means of Representation





Closed Captions & Translations on YouTube



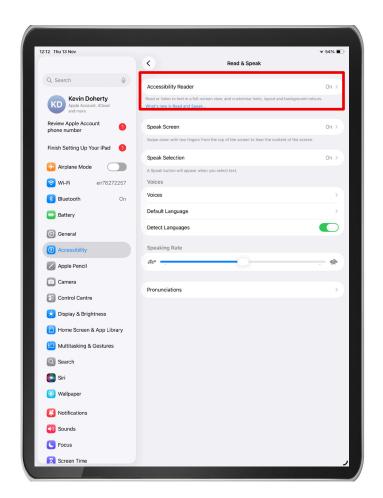


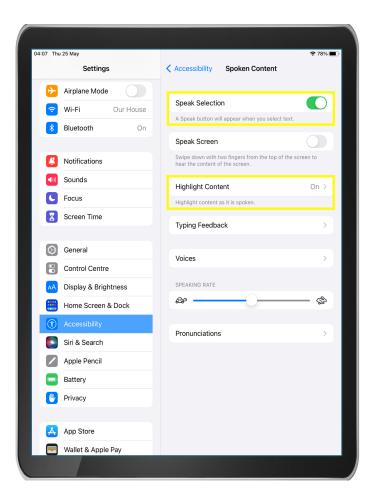
Video

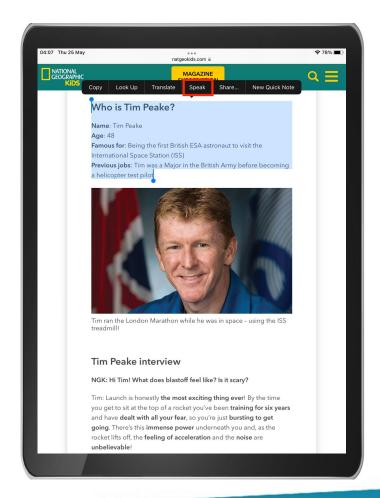


Technology in Education

Accessibility Features on iPad







iPad User Guide



Technology in Education

Accessibility Features on Microsoft Edge



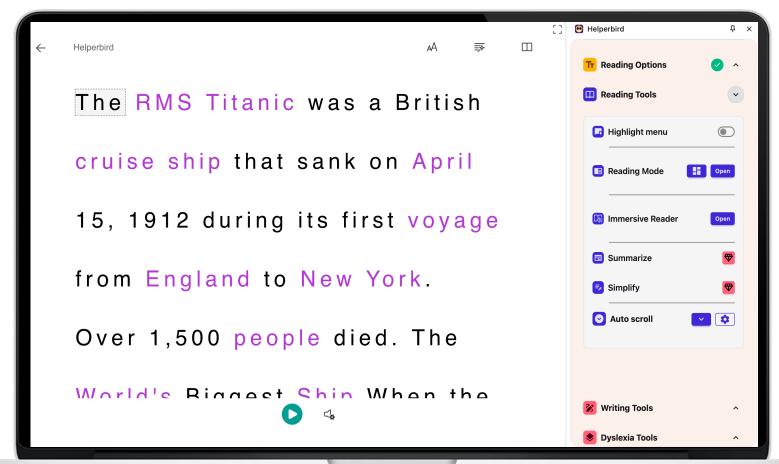


TASK:

- 1. Open Microsoft Edge and go to a webpage you want to read.
- 2. Select the text you want to read, then right-click and choose "Open in Immersive Reader" from the menu.
- 3. Try out the read aloud option, text preferences and reading preferences.

Google Chrome Helperbird Extension





Chrome Extension

Oide Tutorial Video:
Immersive Reader in
Google Docs using
Helperbird



TASK:

Open the Google app on your device

Tap the camera icon

Take a photograph of some text

Select Text button

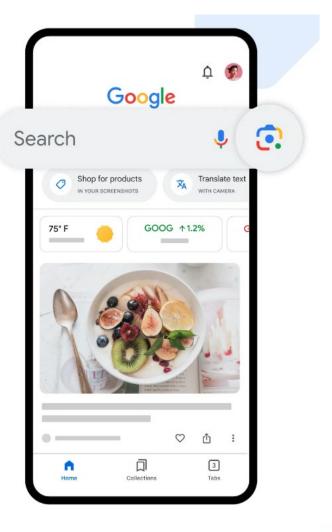
Choose Listen

Try out the Translate button





Technology in Education







Microsoft Lens (Option B)

TASK:

Download Microsoft Lens to your device

Log into the app

Take a photograph of some text

Select Review and Edit > Finish > Open with > Immersive Reader

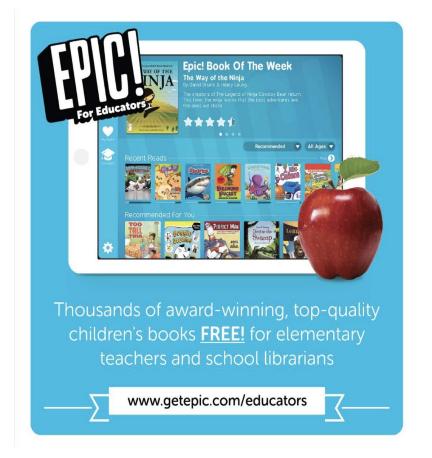
Try out the Read Aloud feature as well as the translation functions

Microsoft Lens (iOS)

Microsoft Lens (Android)



Epic! For Educators



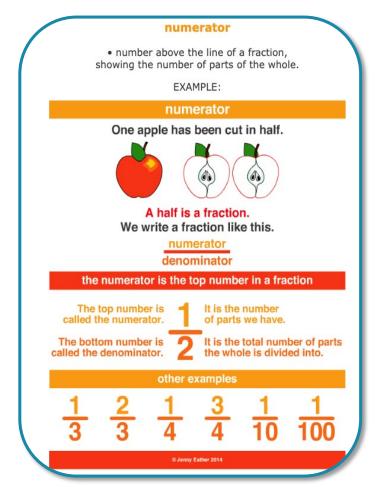
Epic for Educators Epic Help Centre

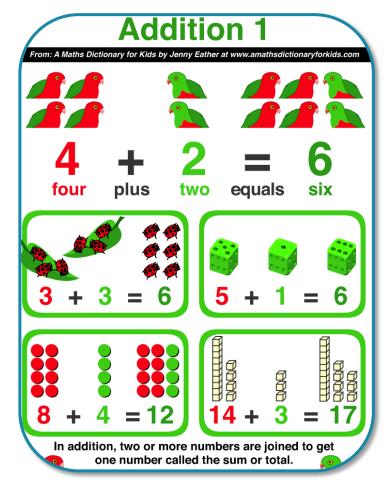
Epic for School is free for teachers and pupils to use Monday – Friday, 7.00a.m. - 3.00p.m. Epic School Plus is a paid plan for 24/7 access.

Instant access to a digital library of fiction and non-fiction books includes audio books.

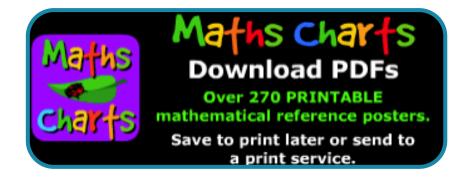
Available on iPads, iPhone, Android devices and on any computer or desktop, including Chromebooks.

Visual Maths Dictionary and Charts







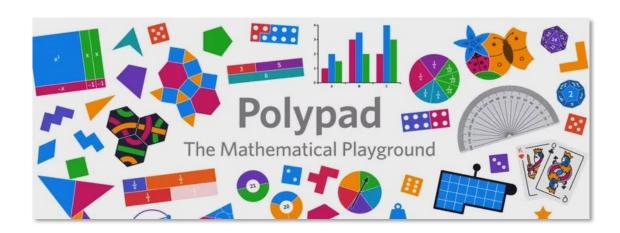


or Kids Maths Charts

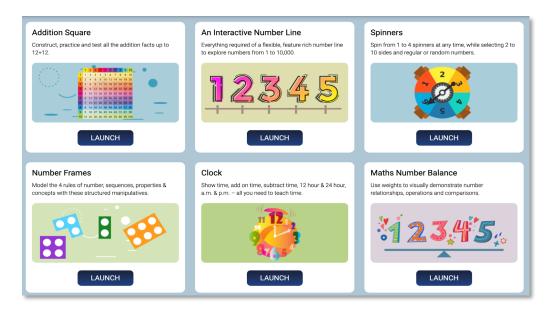


Technology in Education

Virtual Manipulatives



Polypad



Toolkit4Maths



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Multiple Means of Action and Expression









Digital Tools



ChatterPix Kids

<u>iMovie</u>

Book Creator

Canva

Microsoft

Google

Powerpoint

<u>Classroom</u>

Consider how you could use digital tools in your own classroom or setting.





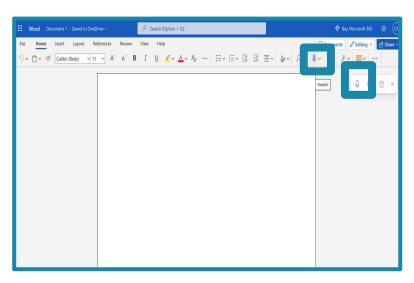
Voice Typing

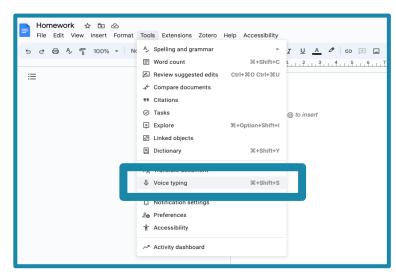
iPad Keyboard

Microsoft Word

Google Docs







Tutorial Video: Voice typing on Google Docs and Microsoft Word



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Further Resources





AT Hive - Overview



Video



AT Hive -Discover Assistive Technology (AT)

Organise

Online organisation tools that can help in a



Note taking using online tools, devices and software.



Tools for writing more effectively or taking different approaches.

Reading **Reading Technologies** Technologies to assist in different approaches to





Organisation Technologies

number of ways.





Collaborate online in different ways to achieve your goals.



Finding the right mindset when you work.



Communication Technologies for communicating in different ways.





Microsoft and Office 365 tools to help in many



Apple Laptops, Desktops, iPads and iPhones.

TASK:

Go to www.ahead.ie/Our-12-AT-Categories. Select a category and explore the tools suggested.



Technology in Education

Oide Tutorial Videos







AT Hive:

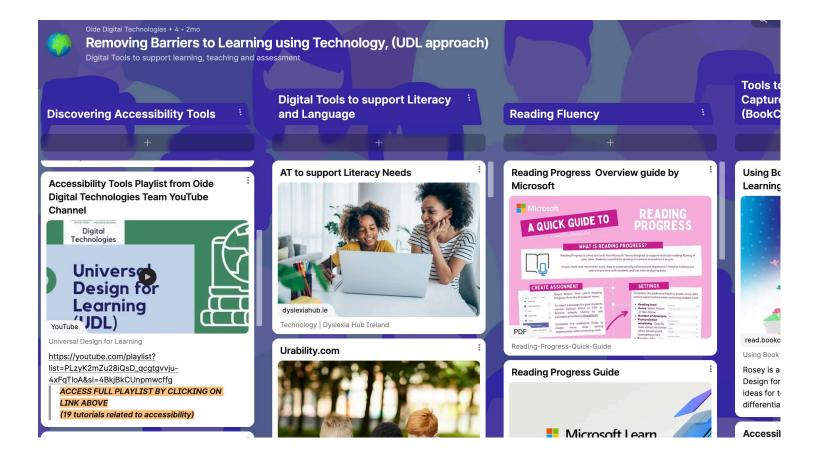
Text-to-Speech on an iPad

AT Hive: Immersive Reader

Voice-to-Text on Google Docs
and Microsoft Word

AT Hive:

Additional Resources: Padlet





Technology in Education

SCAN ME



tiny.cc/AENtools

UDL in the Classroom

The UDL Guidelines from a K-5 Learner's Perspective

Engagement	Representation	Action and Expression
I am interested in learning when ☐ I can make choices ☐ The learning is connected to real life ☐ I am not distracted ☐ I am not nervous about how I do	I can make sense of learning when I have a digital copy so I can change how it looks I can do more than just hear it I can do more than just see it	I can act during learning when I can use materials in ways that work for me I have access to assistive technology
I remember not to give up when ☐ The goal seems important ☐ The work is not too easy and not too hard ☐ My classmates and I help each other ☐ My teacher gives me feedback	I can understand language and symbols when I have a way to look up words I don't know I have a way to look up symbols I can't remember I can ask for help figuring out what words and numbers mean The words are in a language I understand There are picture clues for words and symbols	I can show my understanding when I have options for how to communicate I have access to tools to help me design and create I can take "baby steps" as I learn something new
I can manage my feelings while learning when My teacher believes in me I know how to use strategies that help	I can understand new information when I can connect it to something I already know	I can manage my learning when I have help setting my goals I have help making a learning plan
me focus and stay calm I have time for quiet thinking about how I am feeling	 I know what to pay attention to I have a way to remember it I put the new information to use in a new way 	☐ I have help picking strategies ☐ I have a way to keep track of how I am doing

Prompt Guide





Reflection



What tools, extensions, or UDL approaches from this workshop are you most interested to try in your own classroom or setting?

Míle buíochas

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INTO Workshop - Digital Tools to Support Inclusive Classrooms: UDL in Action





