

Blackboard

# Inclusive Classrooms Workshop

2018





## Who am I?

Elizabeth Simister  
Product Accessibility  
Manager

Bringing now 14 years  
of experience in  
assisting educational  
and government  
institutions in  
understanding what it  
means to be  
accessible.



# Defining Inclusivity

*\*Source: National Center for Educational Restructuring and Inclusion*

“Providing to **all students**, including those with significant disabilities, equitable opportunities to receive effectual educational services, with the **needed supplementary aids and support services**, in **age appropriate** classrooms in their neighborhood schools, in order to prepare students for **productive lives** as full members of society.”

# Inclusion vs. Integration

## Inclusive classroom

- Students with diverse needs included in general education methods.
- Required to complete the same work.
- Assessed in the same manner as typically developing students.

## Integrated classroom

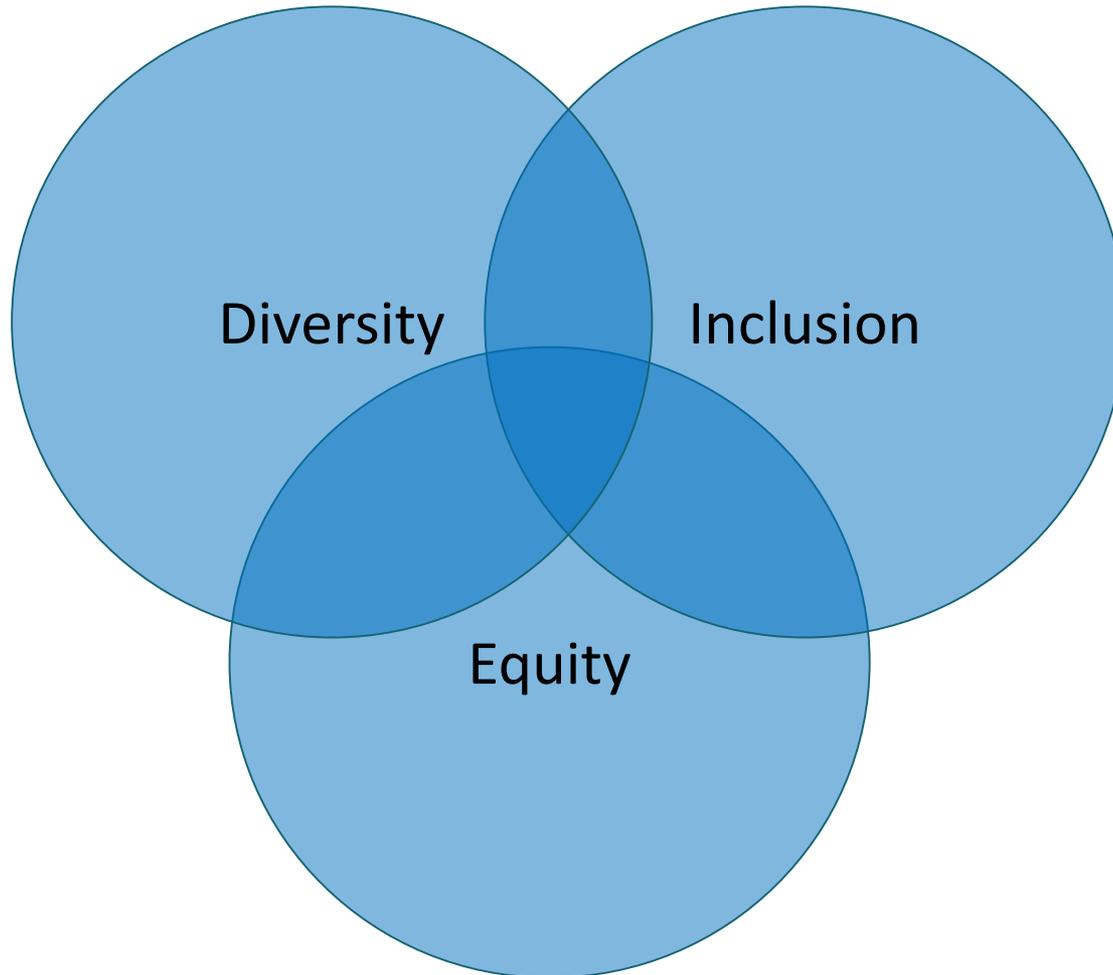
- Students with diverse needs included in general education methods.
- Required to meet the same learning objectives.
- Assessment targeted to the needs of the student.





# Diversity, Inclusion, and Equity

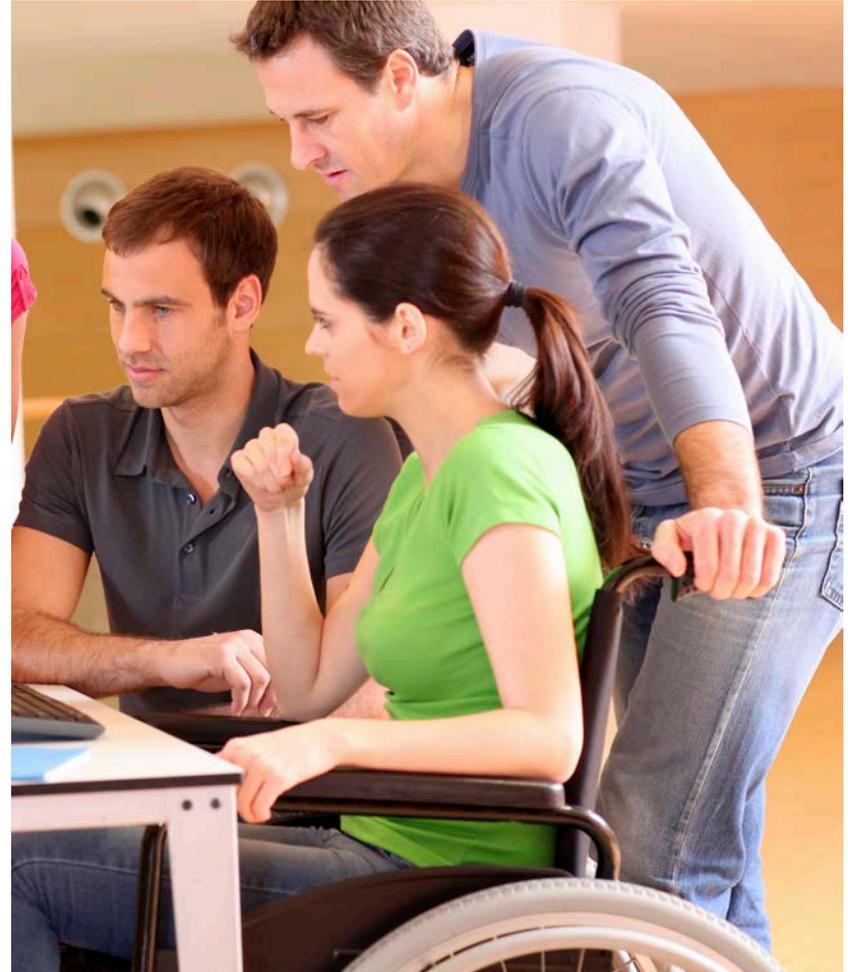
*\*Source: Association of American Colleges and Universities*



# Inclusive Learning: Benefits

Inclusive learning approaches benefit all students. But, learners with diverse needs often see significant returns in the following areas:

1. Engagement
2. Socialization
3. Peer Learning
4. Positive environments
5. Increased success



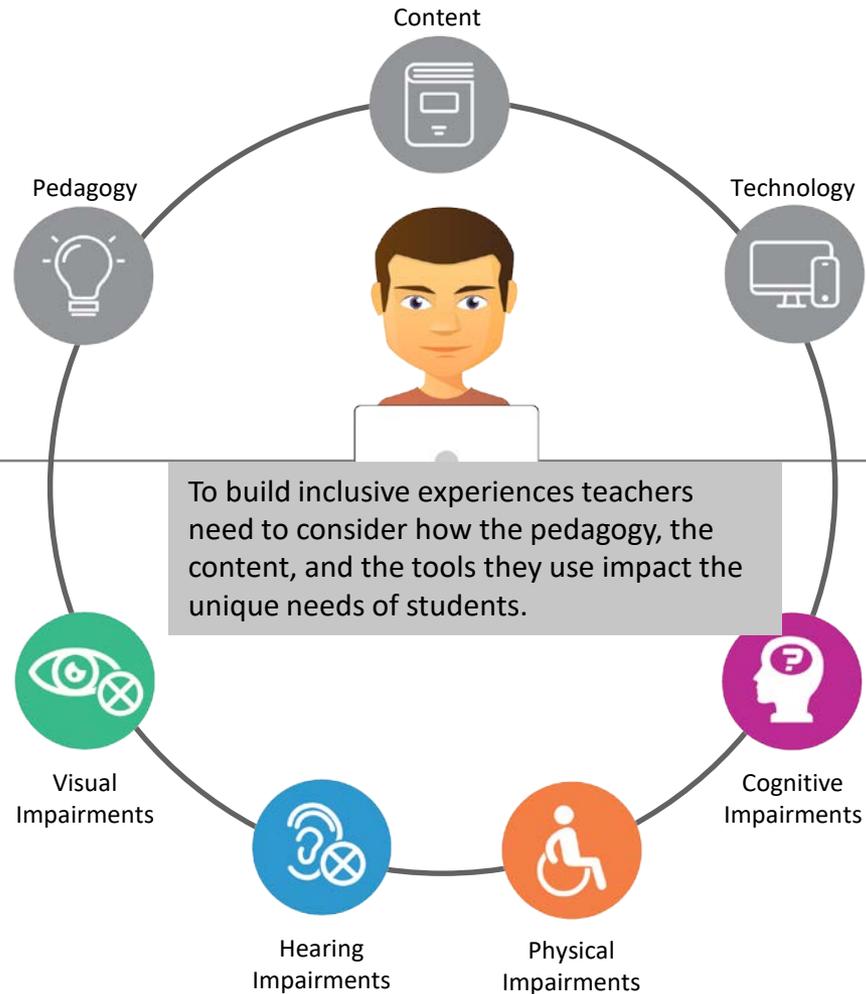


# Inclusive Teaching: Challenges

Building an inclusive classroom isn't always easy. Many teachers will feel challenged by the following themes:

1. Awareness
2. Knowledge & skill gaps
3. Time involved
4. Technology & tools
5. Ongoing support

# Inclusive Thinking



# Understanding diverse needs & the impact on learning



# Diverse Needs: Cognitive Challenges

Cognitive challenges can range from dyslexia and ADHD to Autism, Down Syndrome, and other intellectual disabilities.

## Impact on learning

1. May have difficulty receiving and processing information or have poor problem-solving skills.
2. May be easily distracted and have trouble with memory, reading, writing, reasoning and understanding acceptable social behaviors.
3. May have trouble concentrating and rely on assistive tools for reading and comprehension assistance.





## Activity: Understanding Autism & ADHD

1. Please form 2 groups of 4 people and select one person for each of the following roles:
  - a. Student
  - b. Teacher
  - c. Classmate One
  - d. Classmate Two
2. Read your relevant instruction sheet (don't share with each other)
3. When I say start, please start your tasks.
4. You have 5 minutes.



# Activity: Understanding intellectual disabilities

YELLOW

BLUE

RED

PURPLE

ORANGE

BLUE

RED

PURPLE

GREEN

WHITE

GREEN

BLACK

WHITE

ORANGE

YELLOW

YELLOW

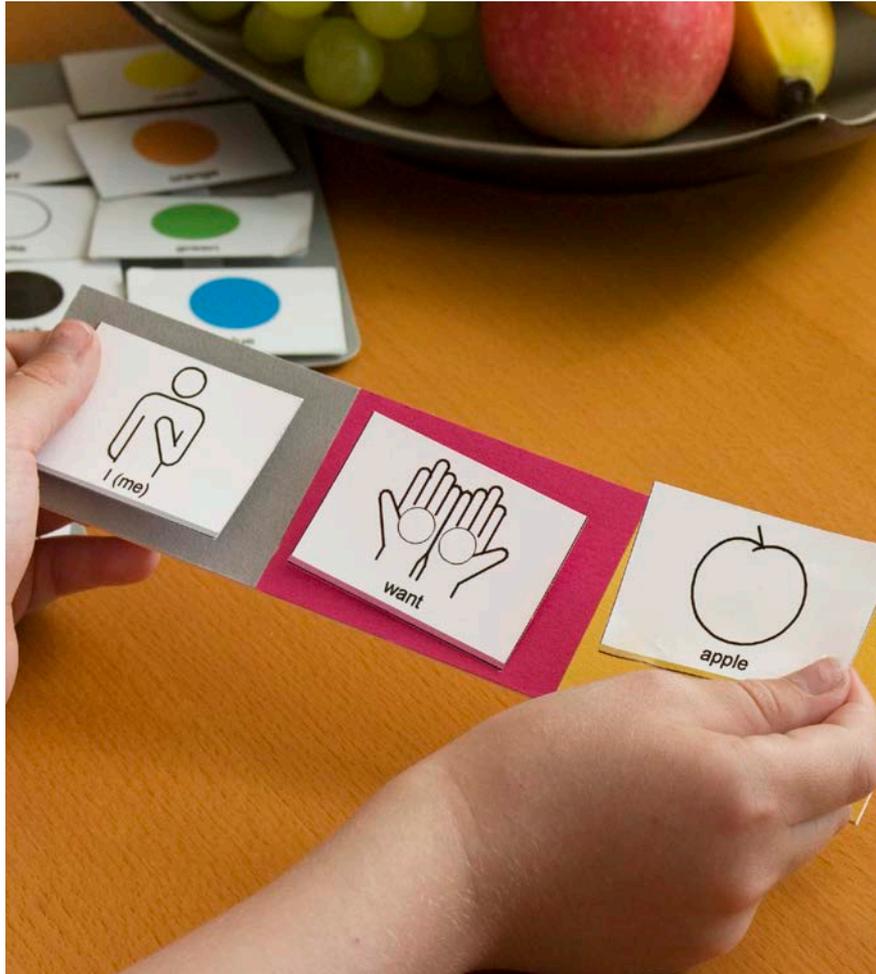
BLUE

BLACK

PURPLE

ORANGE

# Discussion: Understanding Cognitive Challenges



For the “Student” – What was it like trying to concentrate with all the distraction?

For the “Teacher” – what was it like trying to convey the lesson?

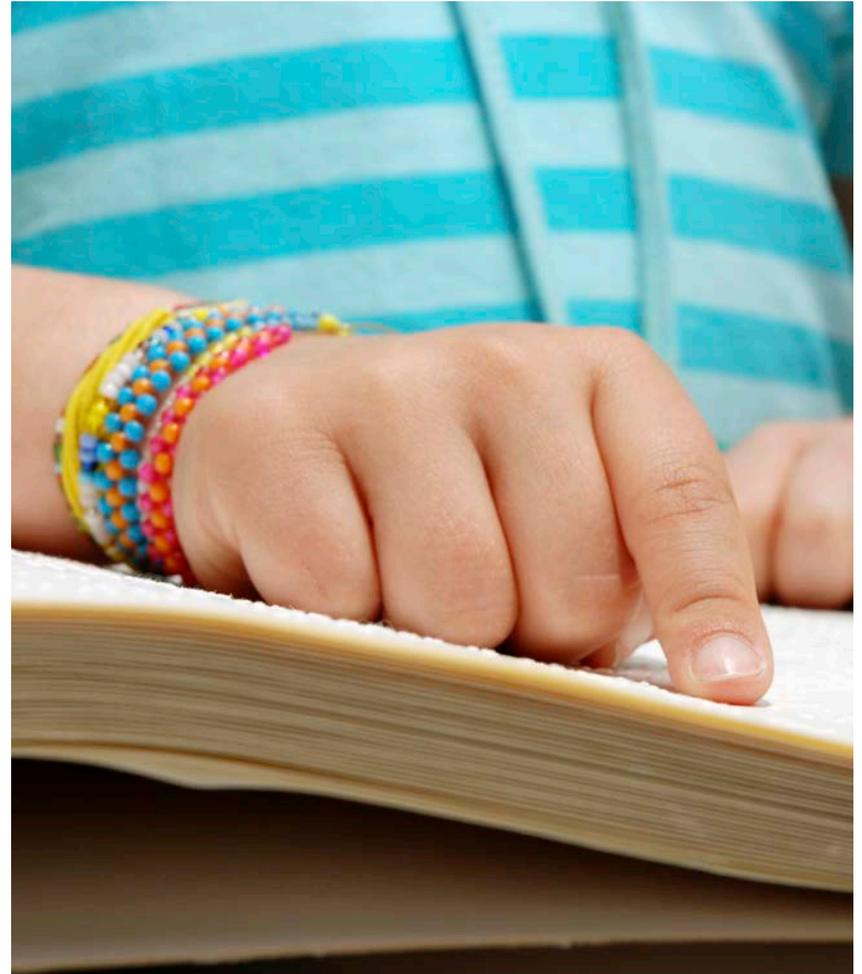
Did you struggle to execute what your brain was telling you? What was that like?

# Diverse Needs: Visual Challenges

Visual challenges can range from low vision and color blindness to a complete lack of sight.

## Impact on learning

1. May have low vision and rely on assistive devices to help them participate in classroom activities.
2. May be completely blind and rely on screen readers or textual equivalents to consume digital content.
3. May struggle to see certain colors or read content in front of the class.
4. May have difficulty moving around the physical classroom space.



# Activity: Understanding Blindness part 1

[This is a video introducing how the tectonic plates move.](#) While the video plays please take notes. You will have a small quiz at the end of the video.



URL: <https://www.youtube.com/watch?v=kwfNGatxUJI>



## Activity: Understanding Blindness

Based on what you learned in the video, please answer the following questions on your worksheet. You have 2 minutes.

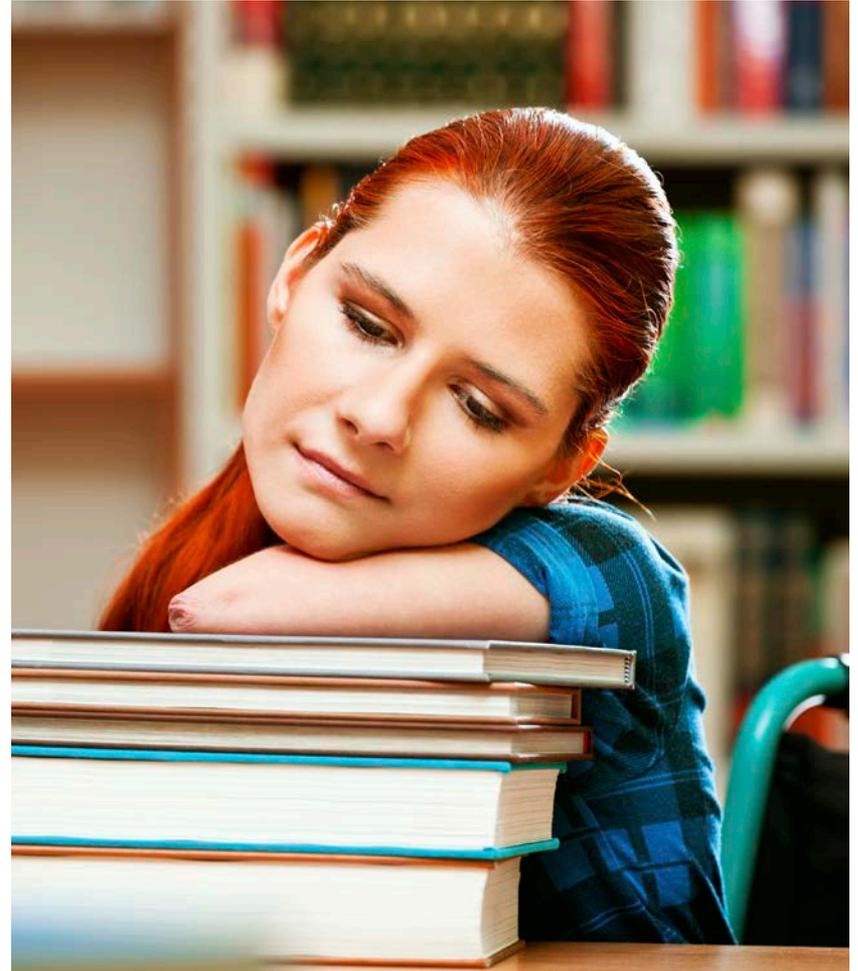
1. What do converging currents do?
  - a. Pull tectonic plates apart
  - b. Carry tectonic plates along the upper mantle of the earth
  - c. Drive tectonic plates together
2. What happens when two tectonic plates collide?
3. Subduction can only happen to the ocean crust?
  - a. True
  - b. False

# Diverse Needs: Physical Challenges

Physical challenges can range from loss of limb and limited mobility to full paralysis and diminished muscle control.

## Impact on learning

1. May not have control over gross or fine muscles required to use technology.
2. May rely on alternative input devices to interact with digital content.
3. May have difficulty moving around the physical classroom space.
4. May struggle to communicate effectively with teachers and classmates.





# Discussion: Understanding Blindness



How much information do you feel you lost because you were not able to see the video?

What are some of the biggest challenges you'll face teaching a student who is blind or low vision?



## Activity: Understanding Cerebral Palsy

Using your non-dominant hand, write the following bullet points on your worksheet.

You have 30 seconds.

1. Earth Science is the study of the Earth and its neighbors in space.
2. Many different sciences are used to learn about the earth, however, the four basic areas of Earth science study are:
  - a. Geology
  - b. Meteorology
  - c. Oceanography
  - d. Astronomy

# Activity: Understanding Motor control

1. Using your keyboard only, please find one video, one article, and one illustration related to the impact of humans on climate change.
2. The resources must be less than 3 years old.
3. You have 2 minutes. Please record your results on your worksheet.





# Discussion: Understanding Physical Challenges



How were you able to deal with the time constraints created by the physical limitations?

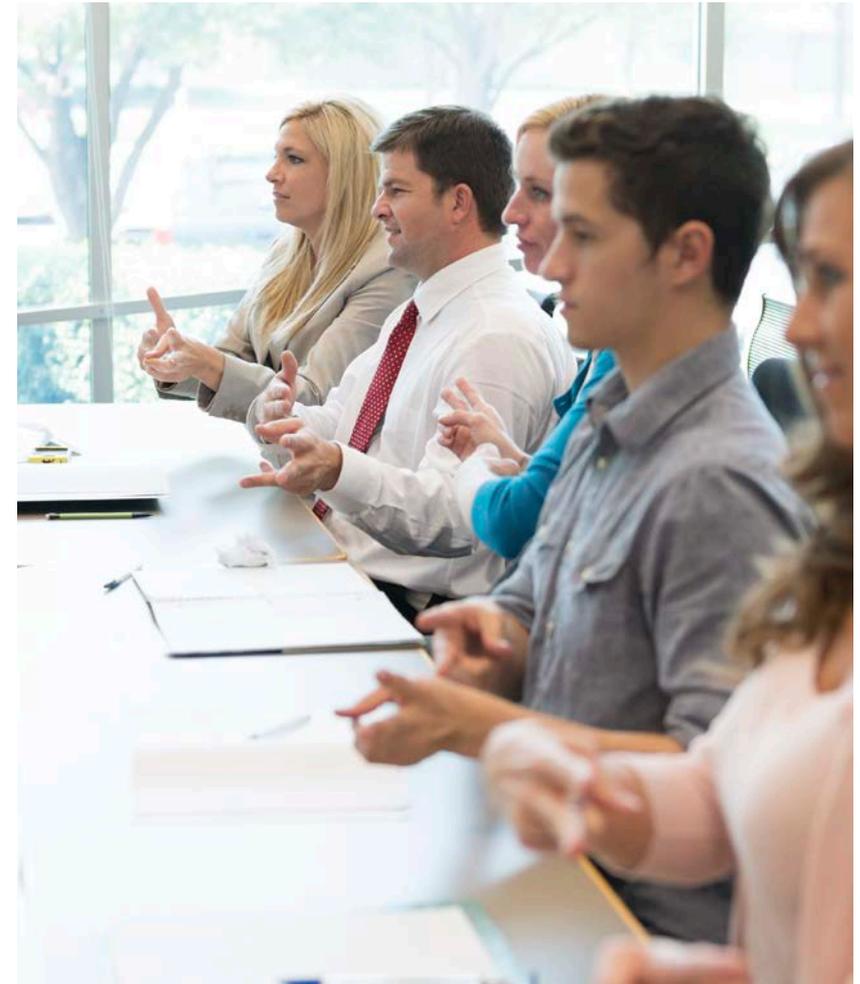
What are some of the biggest challenges you'll face teaching a student with physical limitations?

# Diverse Needs: Hearing Challenges

Hearing challenges can range from slight hearing loss to profound hearing loss or total deafness.

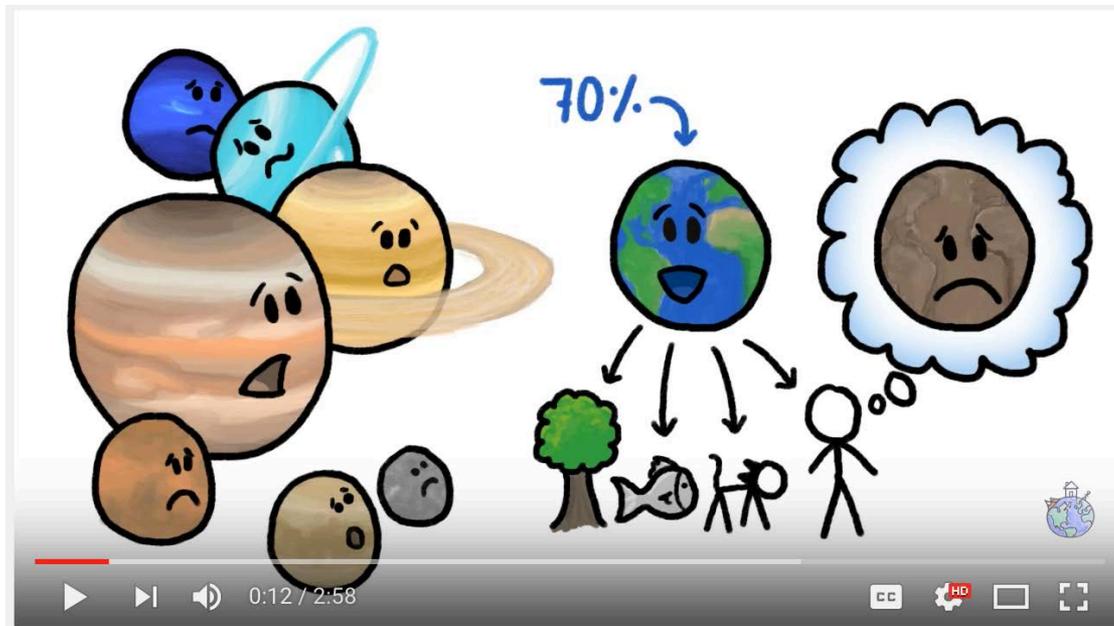
## Impact on learning

1. May have limited hearing and rely on assistive devices to help them participate in classroom activities
2. May be completely deaf and rely on sign language or text based alternatives to audio content.
3. May struggle with grammar, spelling, vocabulary, and oral presentations.
4. May have difficulty taking notes while listening to lectures or watching videos.



# Activity: Understanding Deafness

This is a video discussing where Earth's water came from. While the video plays please take notes. You will have a small quiz at the end of the video.



URL: <https://www.youtube.com/watch?v=LpgBvEPozk>



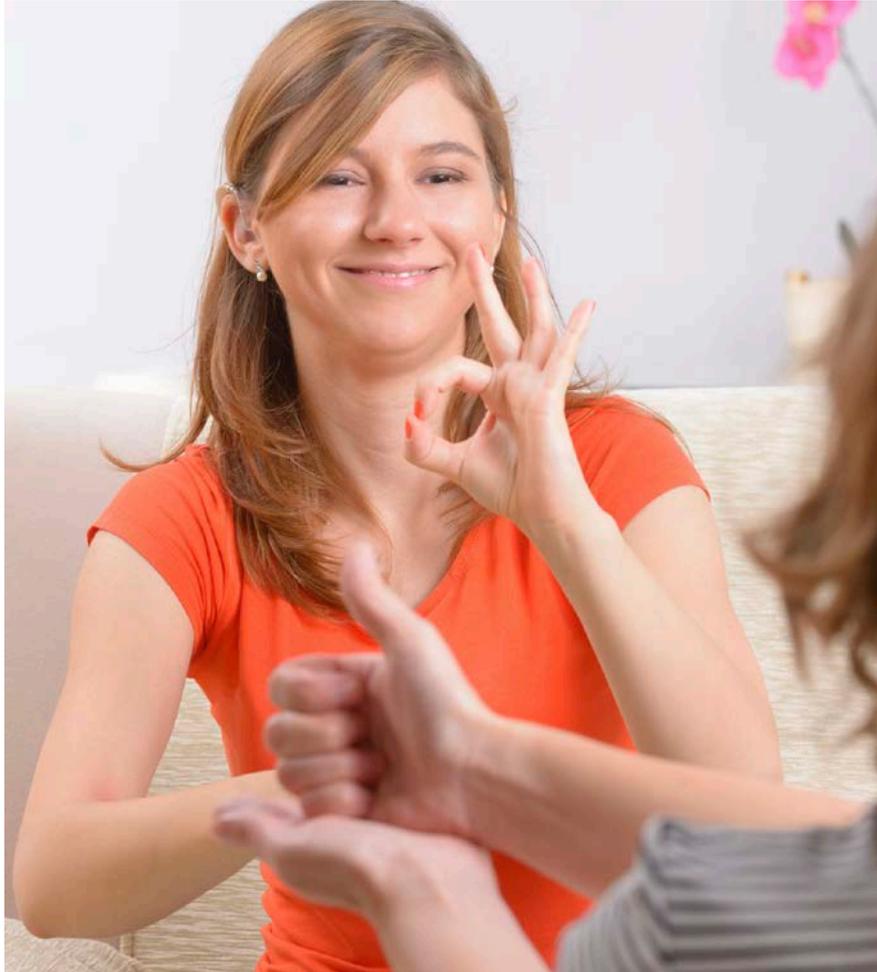
## Activity: Understanding Deafness part 2

Based on what you learned in the video, please answer the following questions on your worksheet you have 2 minutes.

1. What is the percentage of water on Earth?
  - a. 73%
  - b. 80%
  - c. 70%
  - d. 64%
2. Why could water not have been one of the original elements that formed our planet?
3. The water on Earth arrived on comets?
  - a. True
  - b. False



## Discussion: Understanding Deafness



How much information do you feel you lost because you were not able to hear the video?

What are some of the biggest challenges you'll face teaching a student who is deaf or hard of hearing?



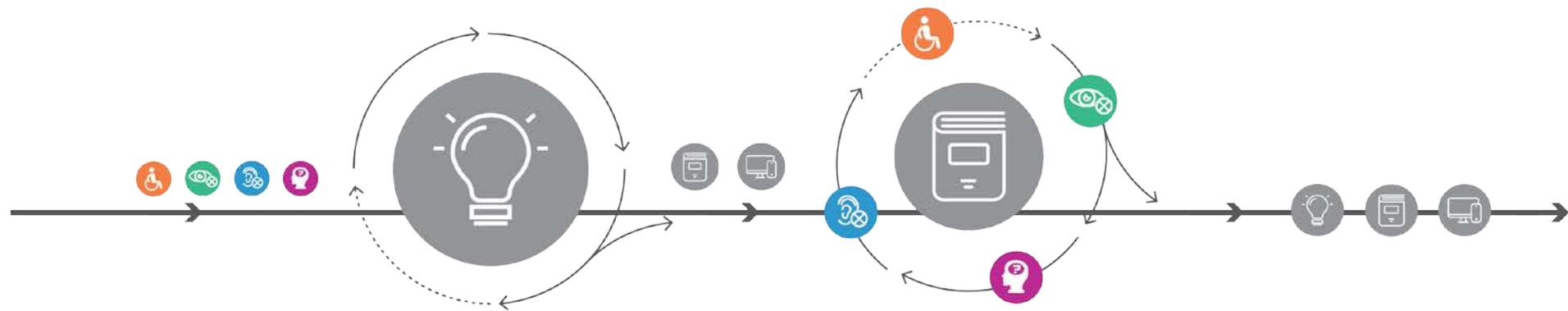
# Adjusting your approach & applying the framework.





# Plan, Execute, and Adjust

There is no one-size-fits-all answer. Inclusiveness does not mean all students doing the same thing the same way. It means enabling everyone to achieve the same goals.





# Inclusive Pedagogy

Thinking inclusively means potentially rethinking how learning is achieved and providing the means to help students succeed.

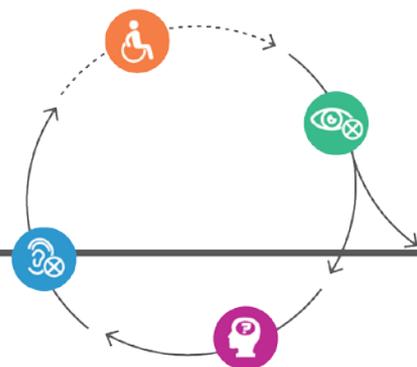




# Quick Checklist: The Pedagogy

Review your curriculum looking for ways to ensure these best practices throughout your course:

- A syllabus has been made available
- Goals and Learning Outcomes are clearly defined
- Differentiated activities are available when applicable
- Opportunities exist for collaborative learning
- Explicit instruction is provided
- Universal thinking is apparent in your curriculum





# Guided Evaluation: Assessing Pedagogy

Let's go take a look at our Introduction to Earth Sciences course and assess the inclusivity of its pedagogy. Write down any observations about the inclusivity of the course pedagogy.



## Introduction to Earth Sciences

JoAnna Hunt

ID: joanna\_h\_ax\_course

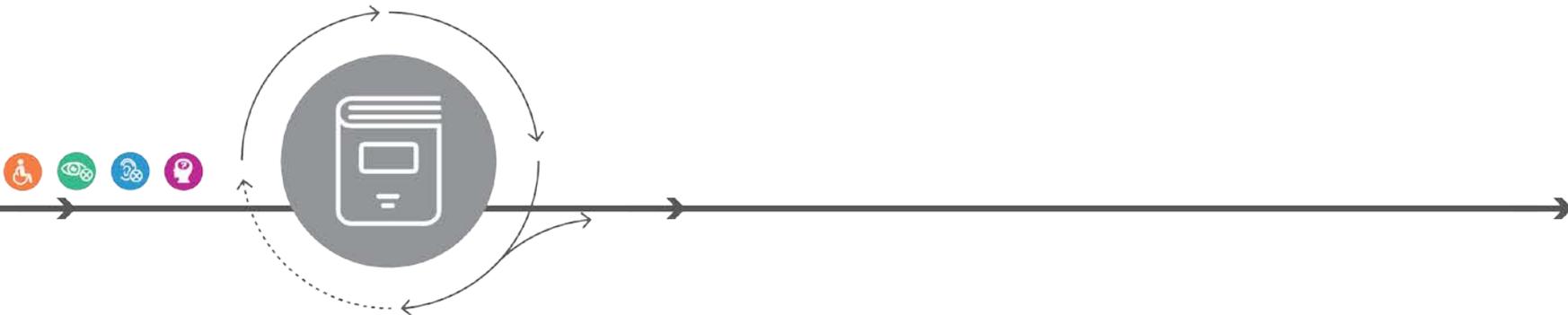
Thompson 314 A

Tue, Thu, Sat 1:00 PM - 3:00 PM



# Inclusive Content

Thinking inclusively means revisiting content and ensuring it's set up for universal consumption. It also means choosing not to use content that doesn't meet expectations.

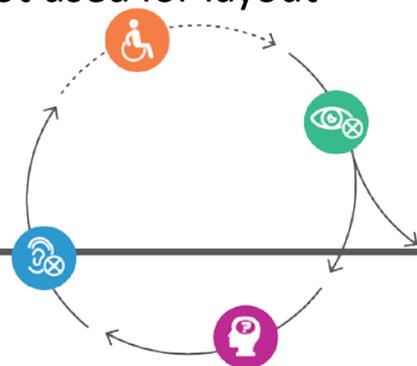




# Quick Checklist: The Content

Evaluate all content for the following elements:

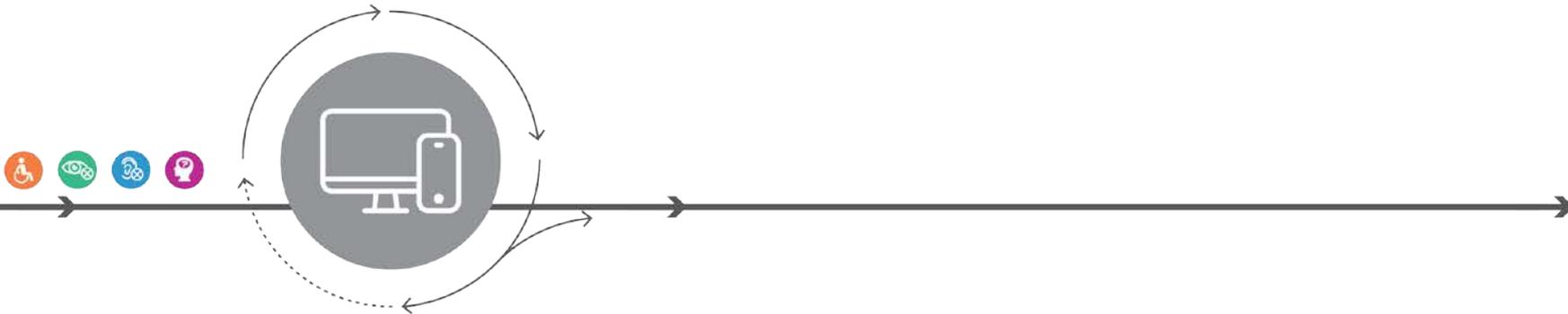
- Images have alternative text
- No images of text or blinking images and animations
- Word and PowerPoint documents are properly structured
- PDFs are tagged for accessibility
- Videos are captioned
- Instructions are clear and succinct
- Color choices have proper contrast
- Tables are not used for layout





# Inclusive Technology

Thinking inclusively means understanding how people need to interact with different tools you are using and adjusting or accommodating as necessary.

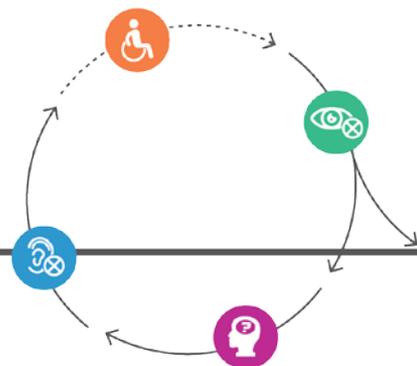




# Quick Checklist: The Tools and Technology

When selecting tools and technology to use in your classroom consider how it may impact people with diverse needs.

- Do colors within the application have proper contrast?
- Does the entire page magnify, not just the text?
- Are all controls are accessible with a keyboard?
- Does clicking form labels move the cursor to the right element?
- Are audio and visual notifications provided in more than one format?
- Are there additional plug-ins and downloads required?



# Guided Evaluation: Assessing Content

Going back to our Earth Sciences course, let's take a look at a couple of specific content elements. Write down any observations about the inclusivity of the course content.

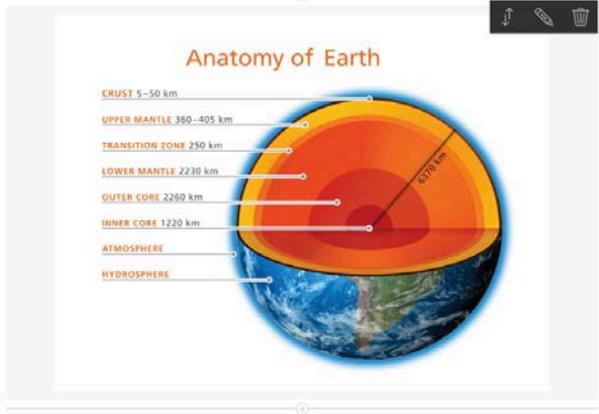
Introduction to Earth Sciences  
A View of the Earth

Visible to students

Earth can be thought of as consisting of four major spheres: the hydrosphere, atmosphere, geosphere, and biosphere.

- The hydrosphere is the water portion of Earth.
- The atmosphere is an envelope of gases that surrounds Earth.
- The geosphere is the layer of Earth under both the atmosphere and the oceans. It includes the core, the mantle, and the crust.
- The biosphere is made up of all life on Earth.

**Anatomy of Earth**



The diagram shows a cross-section of Earth with the following layers and depths:

- CRUST 5–50 km
- UPPER MANTLE 360–405 km
- TRANSITION ZONE 250 km
- LOWER MANTLE 2230 km
- OUTER CORE 2260 km
- INNER CORE 1220 km
- ATMOSPHERE
- HYDROSPHERE

6370 km

Because the geosphere is not uniform, it is divided into three main parts based on differences in composition—the core, the mantle, and the crust.

URL: <https://www.youtube.com/watch?v=T20RT0GgOB4>

# Guided Evaluation: Assessing Technology

Technology plays a big part in our Earth Sciences course. Let's audit the accessibility of two of the tools being used in this course. Write down any observations about the inclusivity of the tool.

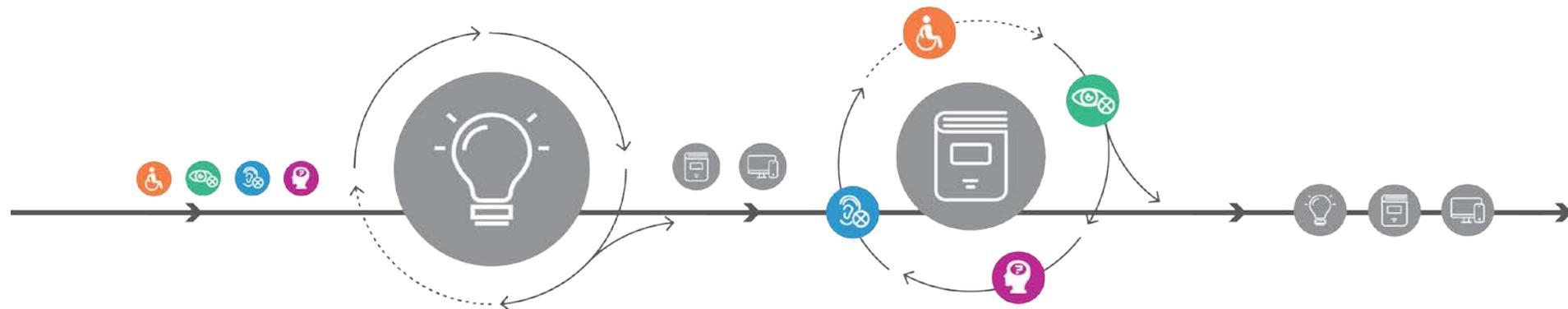


URL: <https://prezi.com/ogxzqpmlccys/introduction-to-earth-science/>

# Reality Check: Three Things to Remember

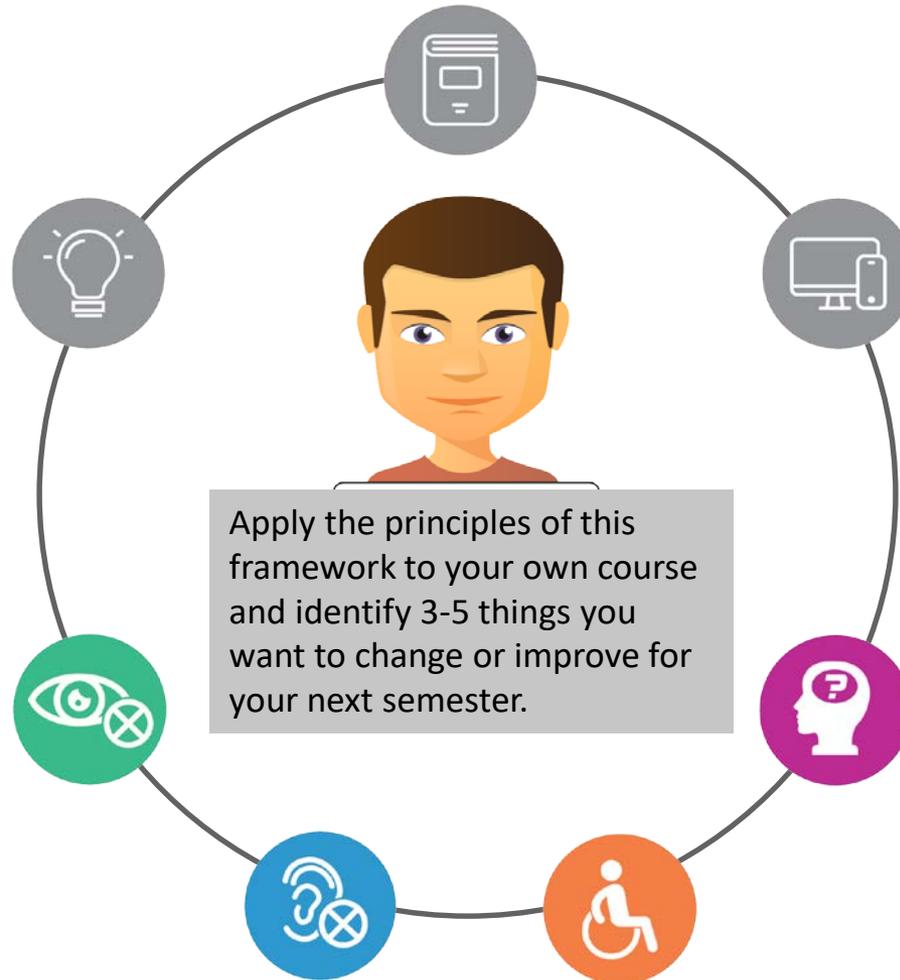
Inclusive thinking seems like a lot of extra work. The value is in the thinking.

1. Start off the right way.
2. Pair up, plan together, share resources and ideas.
3. You can choose any path, have a plan to adjust on the fly.





# Practical Evaluations



# Tools and Resources

*Helpful links to tools and articles for applying inclusive classroom techniques to your work*

## Building Content

- Microsoft Office
- Adobe Acrobat
- [Bb best practices for accessible content](#)

## Keyboard Navigation

- [Firefox shortcuts](#)
- [Chrome shortcuts](#)
- [Google shortcuts](#)

## Evaluating Technology

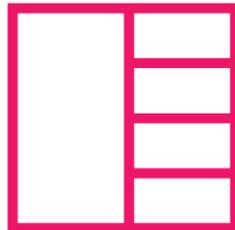
- [Firefox](#) and [Chrome](#) developer toolbars
- [Wave](#) & [Wave Toolbar](#)
- [AXE Extension](#)
- Color contrast checker:
  - [WebAIM Contrast Checker](#)
  - [Tanaguru Contrast Finder](#)
- Your keyboard
- Browser magnification (CTRL +/- and CTRL 0)

# Formatting accessible documents

## Structure & Formatting



## Proper use of tables



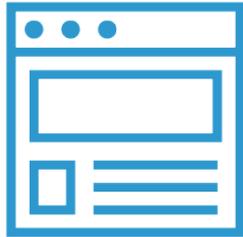
## Alternative text



\*Read full article about [Formatting Accessible Documents](#) on Blackboard Help

# Principles of PowerPoint Accessibility

## Slide Titles



## Reading Order



## Alt Text for Images



## Self-describing links



\*Read full article about the [Principles of PowerPoint Accessibility](#) on Blackboard Help

# Building accessible PDFs

Start from a well formatted source file.



Include accessibility tags when saved to PDF.



Invest in Acrobat Pro and use its accessibility tools.



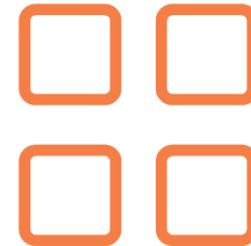
\*Read full article about [Formatting Accessible Documents](#) (look for PDF section) on Blackboard Help

# Captioning Videos

Find already captioned videos



Start with a storyboard



Upload to YouTube



Edit automatic captions



\*Read full article about [Captioning Video](#) on Blackboard Help

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