Differentiating Instruction to Increase Engagement and Outcomes

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Agenda

- Impacting data
- Identifying learning modalities and impacts on various disabilities
- Strategies for creating equity outcomes in your classroom
- Q&A

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Overview

- There are many different factors that impact a student's learning experience:
    - Quality of teaching
    - Class size
    - Peer relationships and teacher connections
    - Student background and demographics
    - Student personal learning modality
    - Disability
- Explore how differentiating instruction can benefit all students including those who identify as a student with a disability.

Surprise Activity!

You have 5 seconds to decipher this!

Eht kcalb tac tas no eht toh nit foor

Write your answer in the chatbox.

“The black cat sat on the hot tin roof”

Discussion

- Was the activity fair?
- How was your experience?
- How can it had been made more accessible?

Impacting Data

- General education classrooms serve a more diverse student population than ever before
  - Special education has doubled since 1976
  - Multilingual leaner enrollments has grown by 28% since 2000
- 26% of the population struggle with invisible disabilities
- Students with disabilities enrollment is increasing
  - 32% of students receiving special educational and/or related services, identified as having specific learning disabilities (SLD)
  - 1 in 5 learners has dyslexia

Adult Education

- 15% of adult education core population(out of school, 18 and older, having less than HS diploma) have a form of disability

- Over 50% of native English speaker enrolled in AE have serious LD.

Higher Education

37% of higher education students with a disability reported it to their institution

70% of higher education students with a mental health condition do not register for accommodations.

19.4 % of college students report having a disability

11-30% of college students identify as neurodiverse

By 2030, 70% of the classes will be online

Employment Settings

- 20% of people in the labor market are thought to be neurodiverse
- 75% of neurodivergent employees with unseen disabilities do not feel comfortable disclosing to their employer.
- 53% of Gen Z employee identify as being neurodiverse.

Children with learning disabilities grow up to be adults with disabilities.

Why do students drop out?

37% - Financial hardship

27% - Physical or mental illness

How do we meet our students where they are at?

- Identifying student learning modalities
  - Visual
  - Auditory
  - Kinesthetic
  - Tactile
  - Multimodal

- Flipping the script and changing the narrative.

Learning is necessarily effortful, requires cognitive engagement, friction and practice.

Barriers towards learning

- **Dyslexia**- 5-10% of worlds pop.
  - 80% of reading disability, difficulty with words, decoding and fluency, and speech sounds, unable to spell correctly
  - Reading fatigue and burnout

- **ADHD**- 5-10% of pop affected, 6M children diagnose between 2016-2019
  - Inattentiveness, hyperactivity, deficits in memory and general academic struggles
  - Can co-occur with dyslexia, difficulty with figurative language, inferences, organizations and coherence.

- **Dyspraxia**
  - 5-10% pop affected, and can co-occur with dyslexia. Difficulty with eye tracking and cause reading fatigue
- **Autism**
  - Ranges in ages of diagnosis, increasing over time
  - Struggle with decoding, not so much with reading comprehension.
- **TBI**- Results in injury
  - Visual processing disorder connection, reading comprehension and fluency connection

What do learning disabilities look like?

View Image - Table 1Characteristics of learning disabilities in the classroom

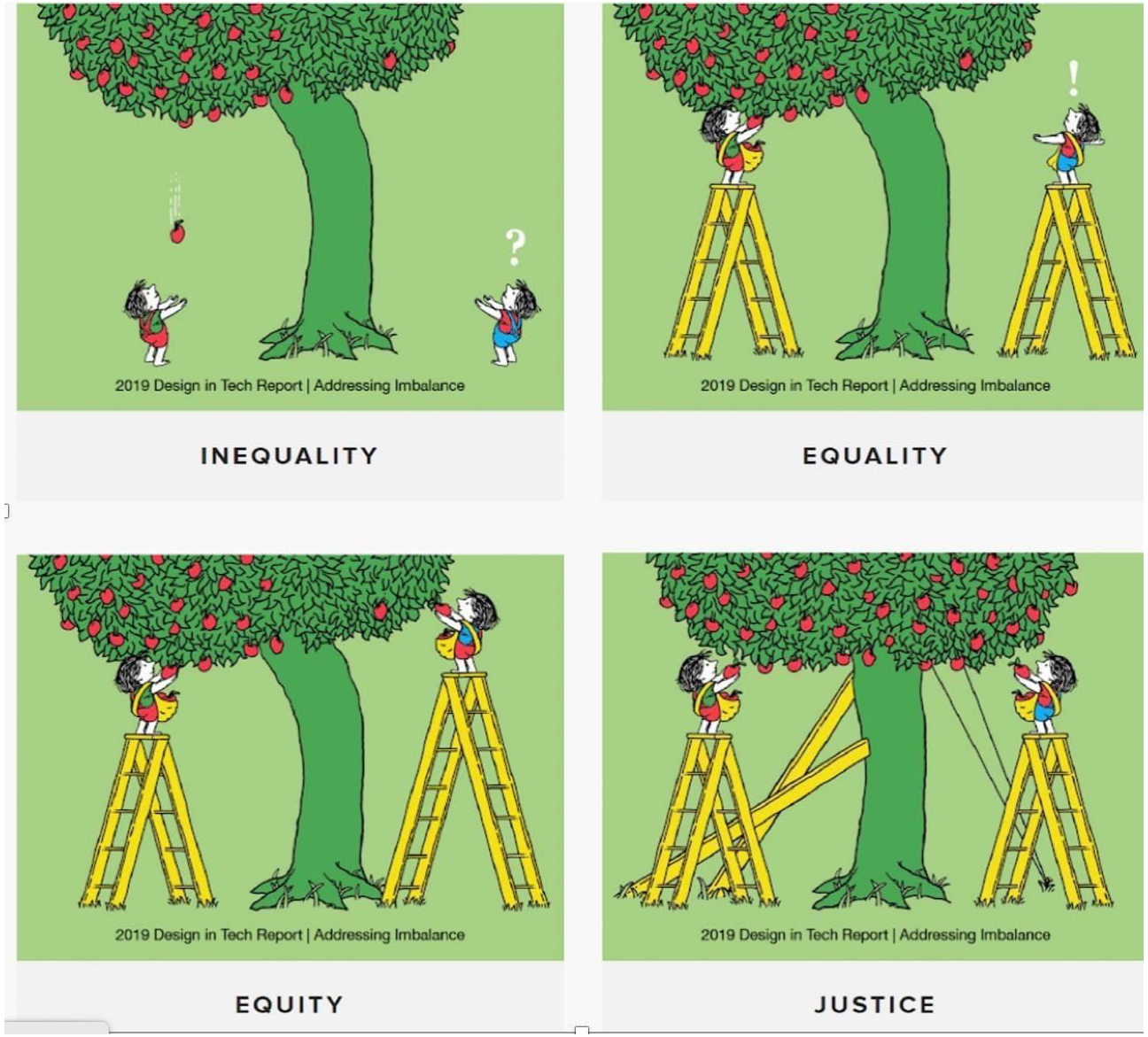
Table 1

Characteristics of learning disabilities in the classroom

Subject area	Characteristics
Reading	Difficulty processing sentences with more than one tense; difficulty recalling main ideas and characters, details and concepts, identifying sequence; difficulty with articulation, phonemic synthesis when reading aloud
Writing	Difficulty with mechanics, spelling, organization of written tasks and using given words correctly in sentences
Listening	Difficulty processing verbal information without visual clues, and in processing details, sequence, abstractions
Speaking	Difficulty expressing ideas, using appropriate vocabulary, and/or using appropriate grammatical patterns
Reasoning	Difficulty making inferences, planning problem-solving steps, explaining "why" questions

Equitable accessibility

Bridging the gap



Instructional strategies

Are used to convey information and engage students.

These strategies are tools to achieved instructional goals.

Graphic Organizer

- What are graphic organizers?
- A graphic organizer is **a visual and graphic display that shows the relationships between facts, terms, and or ideas within a learning task**.
- Graphic organizers such as cognitive organizers, advance organizers, or concept diagrams.

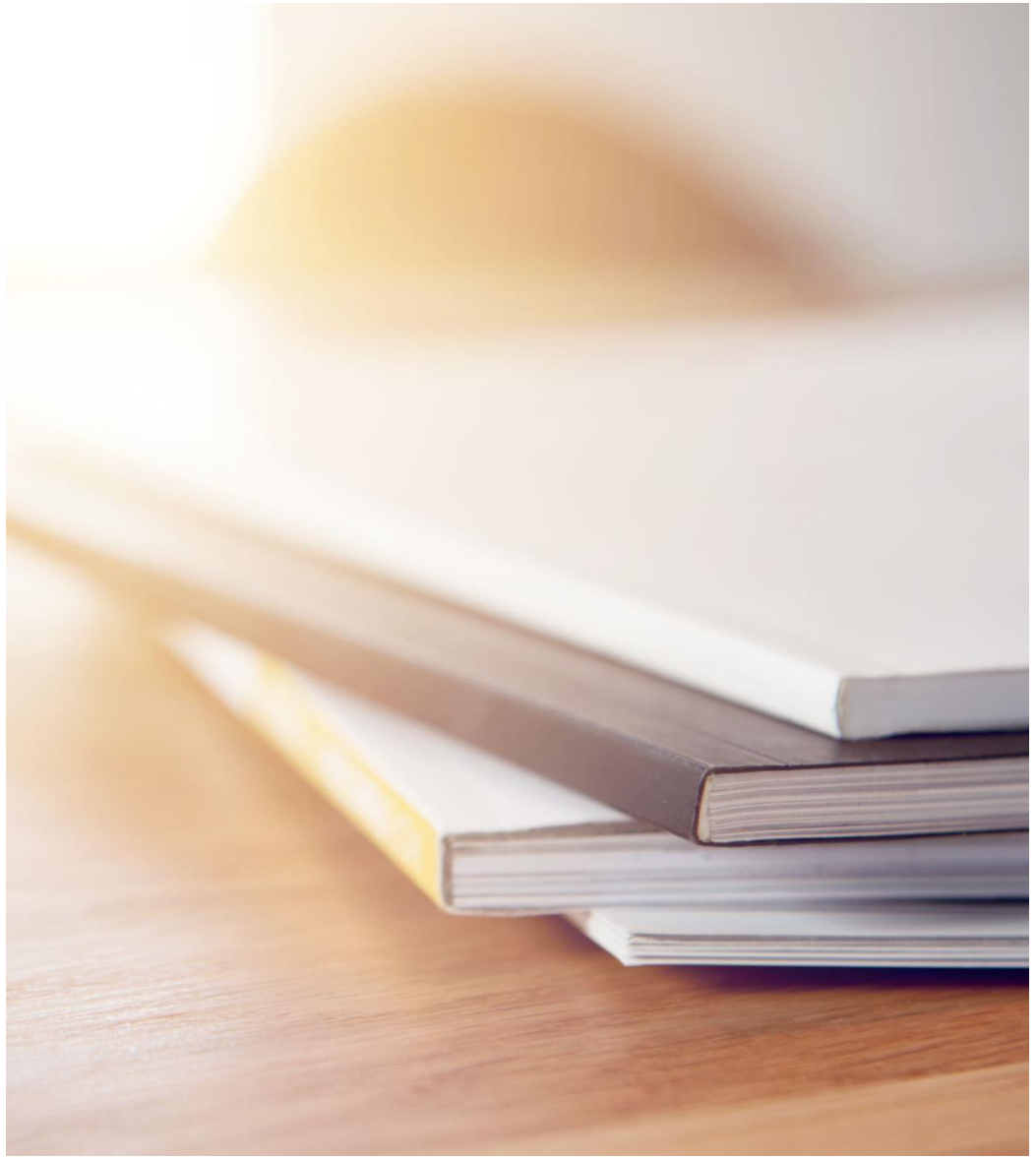
Examples of graphic organizers

- Cognitive- a process that aims to the improvement of organizational learning and development.
  - Example: Venn Diagram
- Advance-link prior knowledge to upcoming learning to help students anticipate and understand the structure of new information
  - Example: KWL Chart
- Concept- visual representation of information such as links, hierarchies, cross links and examples
  - Example: T-Chart

Is note taking important?

Why do we take notes?

- Storage: to help you remember everything to review later
- Attention: note taking requires physical and mental effort, which helps with focus and attention.
- Encoding: The physical act of note taking helps us process and categorize information

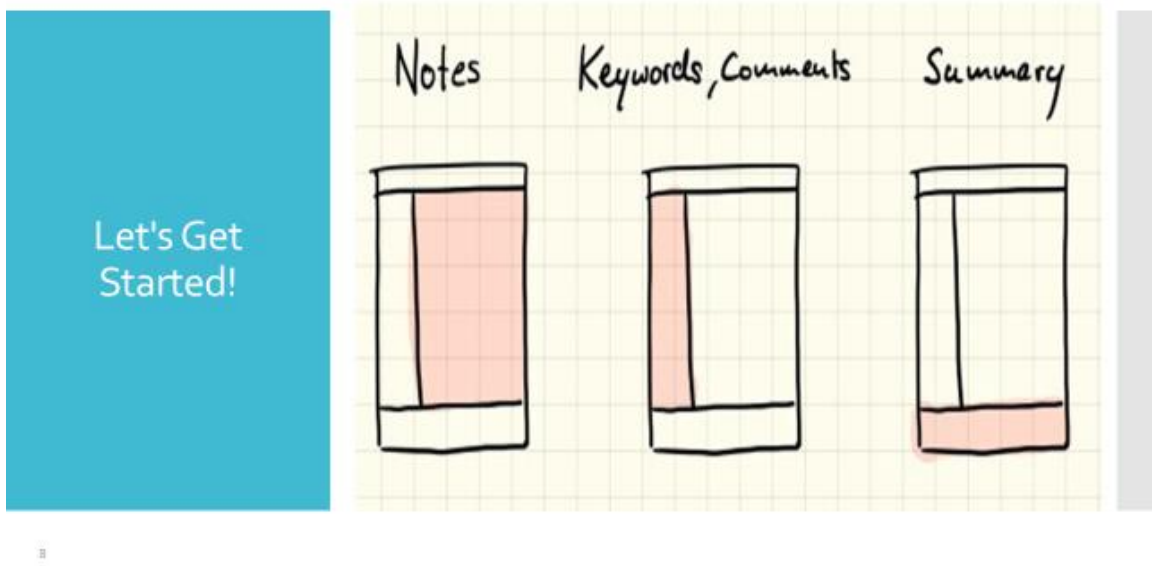


Why take notes?

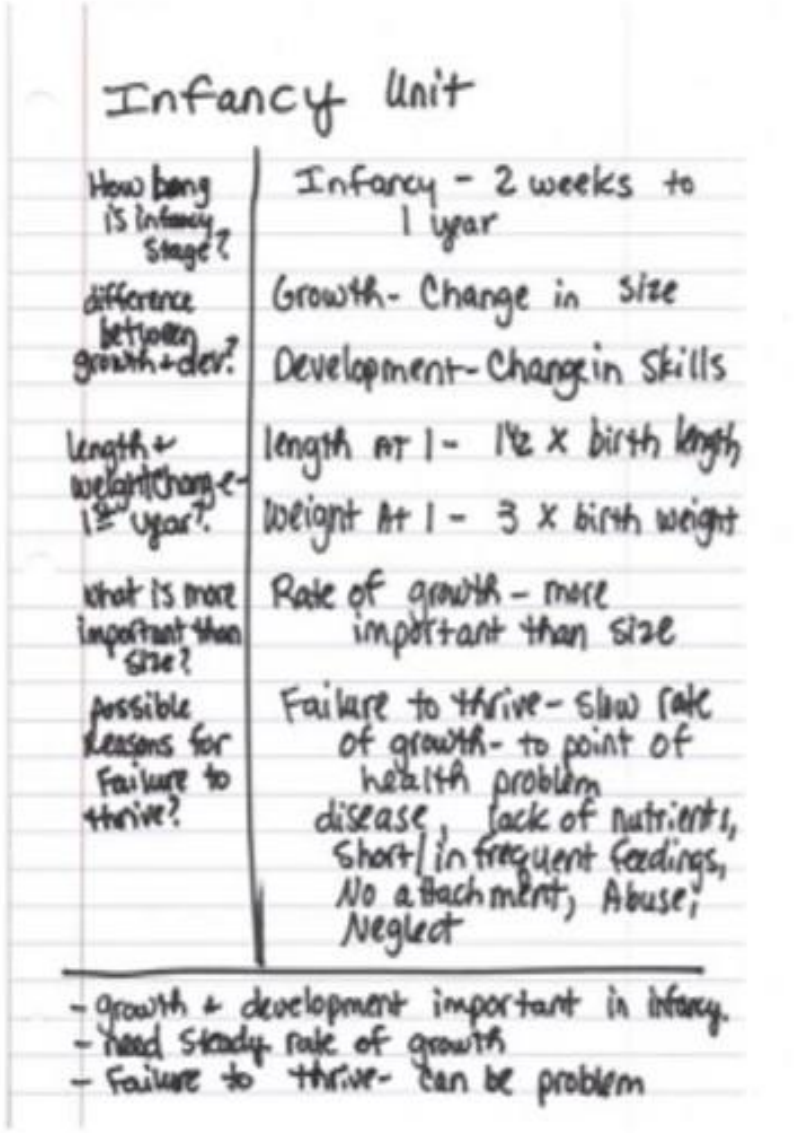
Students need to pass industry-recognized third-party examinations.

Take Out a Piece Paper

Fold the paper in 3 sections and label



- **Student Cornell Sample**



Infancy Unit

How long is Infancy stage?	Infancy - 2 weeks to 1 year
difference between growth + dev?	Growth - Change in size Development - Change in Skills
Length + weight change - 1st year?	length at 1 - 1½ x birth length Weight At 1 - 3 x birth weight
what is more important than size?	Rate of growth - more important than size
possible reasons for Failure to thrive?	Failure to thrive - slow rate of growth - to point of health problem disease, lack of nutrients, short/infrequent feedings, No attachment, Abuse, Neglect

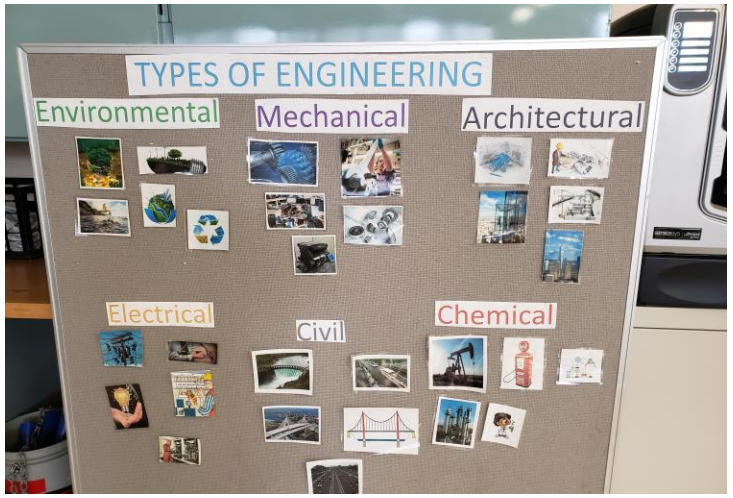
- growth + development important in Infancy.
- need steady rate of growth
- Failure to thrive - can be problem

WVOC

Classroom Management strategies

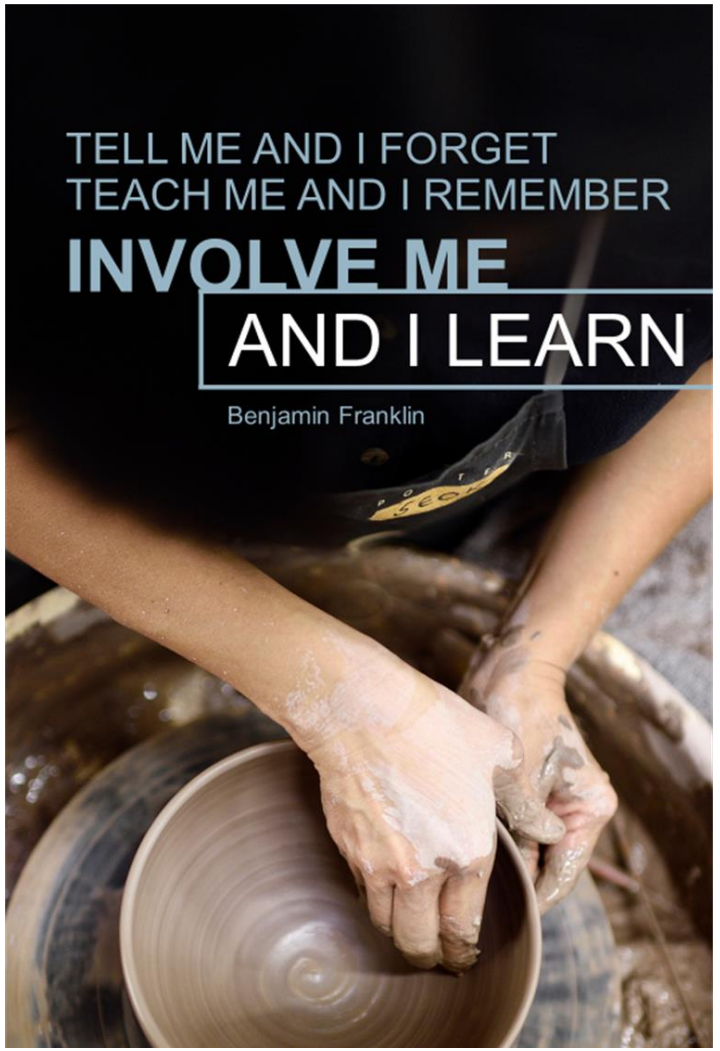
- Routines
- Inviting and visually pleasing environment
- Educational Visual aids
- Access to assistive tech devices
- Ask the student, don’t assume

Word Wall Industry Terminology



Cooperative Learning

For example, Jigsaw activities that derived input from all students in the class.


TELL ME AND I FORGET
TEACH ME AND I REMEMBER
INVOLVE ME
AND I LEARN
Benjamin Franklin

Assistive technology in the classroom

Reading strategies and tools

Strategies

- Emphasis on digital literacy
- Use of larger text
- chunking
- rulers and
- visual blockers
- narrow margins
- font type
- read aloud

Tools

- Amazon Kindle Touch, Windows Narrator, and MS Suite Read Aloud features
- Mac and PC accessibility features for students-Text to speech (TTS)
- Kurzweil 3000/ Glean
- Reader/ Natural reader/ AI
- Screenreaders and magnifiers
  - JAWS, Zoomtext, Fusion

Accommodations

Instructional strategies positively impact all students to receive equitable instruction within the classroom

Instructor goal is to always design curriculum with accessibility in mind

Reasonable accommodations for students with disabilities at the students request.

Assessment

One measure of assessment is not enough to identify strengths and needs of instruction.

Survey student learning modalities

Teachers can meet students where they are by finding out how they learn best.

By gathering data from the assessment, teachers can find out the percentages for each learning style in their classroom, and better cater to them.

Example: a classroom comprises 50% as visual learners, 25% as audio learners, 15% tactile learners, 10% multi-modal learners

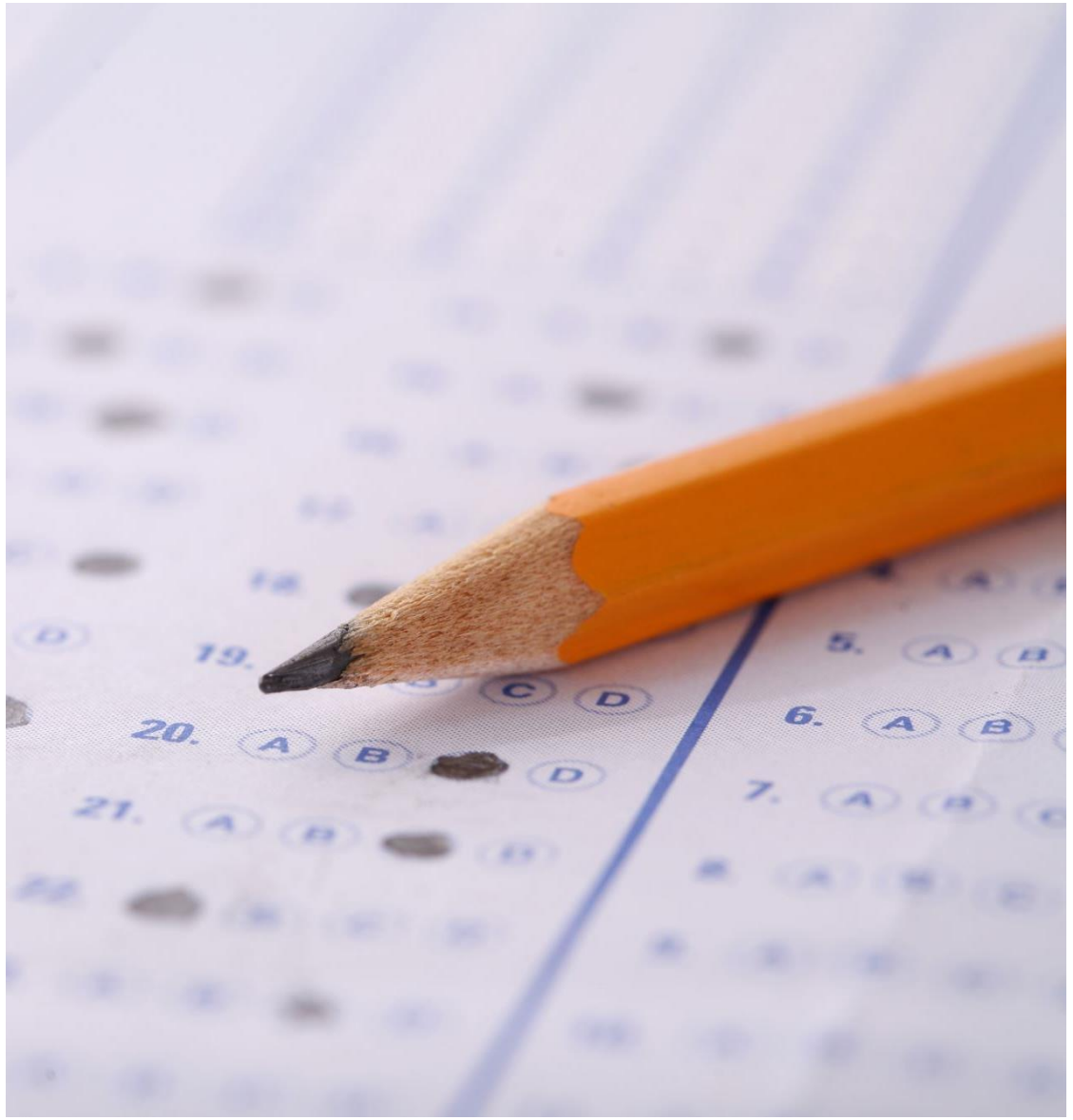
http://www.educationplanner.org/students/self-assessments/learning-styles.shtml

Exit Ticket

- Before students leave the classroom, ask students to answer a question related to a key concept discussed in the lesson that day.
- They can write it down on a piece of paper or index card.
- Questions can be simple, like asking students what they found most interesting about the lesson.
- Or, they can be more complex, such as having them draw a sketch that demonstrates what they learned or asking them to connect the key concept they learned to a real-life situation.
- Have students hand the ‘tickets‘ to you as they exit (or have them submit a response to your discussion board), then review the responses.

Exit Tickets

- Are a formative assessment tool that are given to students to complete at the end of class.
- They are used to assess how well students understand the material.



Thank you for your time!

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