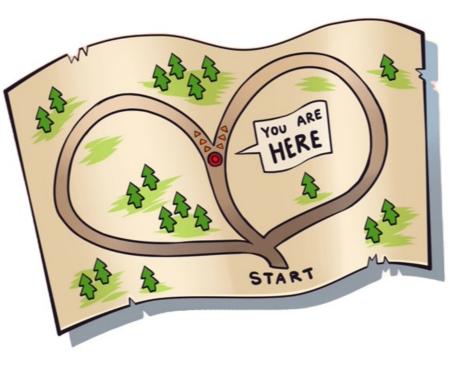
## The Road Less Traveled: Differentiating for All Learners







## **Meet the Facilitators**



Kelly Cartwright
PLTW
Instructional Developer



**Kristen Champion-Terrell** PLTW Instructional Developer





# Agenda

□ Welcome!

Define differentiation

□ Identify barriers to differentiation

**Explore differentiation strategies** 

Plan to differentiate

□ Reflection, Q & A



## **Defining Differentiation**

- If you were asked to explain what differentiation or differentiated instruction is, how would you respond?
- Work with your group to define differentiated instruction.







## **Differentiated Instruction Defined**

Differentiated instruction is "an approach to teaching in which teachers proactively modify curricula, teaching methods, resources, learning activities, and student products to address the diverse needs of individual students and small groups of students to maximize the learning opportunity for each student in a classroom." Tomlinson et al., 2003, p.120.

"Specifically, we define differentiation as the outcome of a continuous decision-making process where teachers look and listen for academic diversity that will strengthen or impede effective and efficient learning, and then adjust instruction..."

Bondie et al., 2019, p. 356





## **Barriers to Differentiation**

- Lack of planning time
- Mental challenges for teachers of differentiating every lesson
- Too many individual needs to meet
- Lack of assistance or support from administration
- Lack of parental support
- Classroom management
- Lack of differentiation on standardized tests







## **Differentiation Strategies**



#### Content

Content refers to the knowledge, understanding, and skills that students need to learn.



#### Process

Process involves how students come to understand and make sense of the content and helps students recognize the real-world relevance of the content.



#### Product

Product refers to how students demonstrate what they know, understand, and are able to do.



#### Environment

Learning environment refers to the physical classroom and the students' thoughts, feelings, interests, and beliefs.

Adapted from Tomlinson, C.A. (2010). Differentiation model.





### Content

Refers to the knowledge, understanding, and skills that students need to learn.



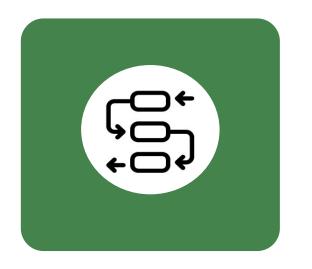
- Text read at various levels, audiotapes
- Categorize information in meaningful ways to the student
- Modeling by the teacher
- Provide materials in the primary language of the student
- Use examples of illustrations based on student interest Adapted from Gumpert, M. & McConnell, W. (2019, September)





### Process

Involves how students come to understand and make sense of the content and helps students recognize the real-world relevance of the content.



- Use of manipulatives
- Varying the pacing of student work
- Cooperative grouping strategies (Jigsaw, Think-Pair-Share, etc.)
- Give tiered assignments
- Allow option for some tasks to be done at home and in class; collaboratively or individually

Adapted from Gumpert, M. & McConnell, W. (2019, September)





### Product

Refers to how students demonstrate what they know, understand, and are able to do.



- Offer rubrics based on expectations
- Choice boards
- Teach students how to use a wide range of product formats – PowerPoint, Makerspace, posters, etc.

Adapted from Gumpert, M. & McConnell, W. (2019, September)





## Environment

Refers to the knowledge, understanding, and skills that students need to learn.



- Model respect
- Help students examine multiple perspectives on important issues
- Furniture is arranged to best meet the needs of every student
- Students feel represented in the classroom

Adapted from Gumpert, M. & McConnell, W. (2019, September)





## **Module Overview – Animal Adaptations**

During the 1<sup>st</sup> grade animal adaptations module, students:

- Explore examples of adaptations
- Complete a scientific inquiry to explore different beak structures
- Explore different environments, including the Arctic, African Savanna, Sahara Desert, Pacific Ocean, and Amazon Rainforest
- Design an ideal traveler to survive in their assigned environment
- Design a shoe for their traveler to wear in the assigned environment







Students identify proper steps humans need to take to adapt to a given environment.







For students who may not know what these stops may look like, you provide photographs of each possible stop identified on the card. Your photos show the destination, but they do not include humans or human-made objects.



You are headed to the <u>Amazon Rainforest.</u> On your trip, you may

- Kayak down the Amazon
- Go on a wildlife hike
- Climb tropical trees
- Camp in the rainforest





In Activity 2, students explore different bird beaks by using a spoon, clothespin, and tweezers to pick up different bird "foods." You prompt students who cannot manipulate these "beaks" to observe group members. Alternatively, you provide brief video snippets of each "beak" for students to observe.







When it is time for students to EXPLAIN their shoe, you help students select a delivery method according to their needs. They might:

- Show and describe their shoe during an oral presentation.
- Create a recording that shows and describes their shoe.
- Answer questions about their shoe during a gallery walk.





While they investigate bird beaks, students use the red/yellow/green system to communicate their level of understanding. You use this feedback to provide just-in-time support where and when students need it.







## **Plan to Differentiate**

- Review the APB overview.
- Identify opportunities for differentiation.
- Record ideas on sticky notes.
- When your group is finished, place the sticky notes on the correct module chart.



Pushes and Pulls Kindergarten



The Changing Earth 2<sup>nd</sup> Grade



Weather: Factors and Hazards  $\mathbf{3}^{\mathrm{rd}}$  Grade



Ecosystems: Flow of Energy and Matter 5<sup>th</sup> Grade









#### Thank you for joining us!



### References

- VanGarderen, D. & Wittaker, C. (2006). Planning differentiated, multicultural instruction for secondary inclusive classrooms. Teaching Exceptional Children, 38(3), 12-20.
- Gumpert, M., & McConnell, W. (2019, September). Different strokes for different folks. *Science and Children*, *57*(2), 62–70. https://doi.org/<u>10.2505/4/sc19\_057\_02\_62</u>
- Tomlinson, C.A. (2008, November). The goals of differentiation. *Educational leadership*, 66(3), 26–30.
- Bondie, R. (2019, September). Demystifying differentiated instruction. *Science & Children*, *57*(2), 14–19. https://doi.org/10.2505/4/sc19\_057\_02\_14



