One Size Doesn't Fit All: Dare to Differentiate

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Just as "variety is the spice of life", differentiation is the spice of learning.

What is it?

- According to Tomlinson (1999), in differentiated classrooms teachers provide specific ways for each individual to learn as deeply as possible and as quickly as possible, without assuming one student's road map for learning is identical to anyone else's.

- The teacher thoughtfully uses assessment data to guide modifications to content, process, product or learning environment.

    content - change in the material being learning

    process - the way in which a student accesses information

    product - the way in which a student shows their mastery

It’s responsive teaching!

It’s assuming that our students’ prior content knowledge varies! You can’t assume “Maria knows Mary had a little lamb.”

It’s assessing and responding to our students’ individual needs, allowing them to practice for their different levels of readiness.

You can differentiate according to the student's...

- Readiness: student's entry point relative to particular knowledge, understanding or skills

- Interests (Howard Gardner's Theory of Multiple Intelligences): a learner's curiosity or passion for a particular topic or skill

- Learning Profile (VAK Learning Styles): preferred approaches to learning

Understanding these various styles assists us in...

- providing the most appropriate activities for learners
- providing students with authentic assessments
- helping students build on their strengths and weaknesses
- making students responsible for their own learning
- motivating students
- tailoring lessons to accommodate all learners

What's the process??

1. Start with the learning objective...
2. Pre-assess (This isn't necessarily a formal assessment; it can be just taking a mental inventory)
3. Get to know your students!!!!
4. Decide how you want to differentiate. (content, process, or product?) (readiness level? interest? learning style?)
5. Brainstorm a list of learning experiences and/or assessments.

Differentiated Instruction

Strategies & Assessments

Strategy

- Cooperative Grouping
- Tiered Assignments
- Anchoring Activities
- Progressive Pockets
- Varied text
- Curriculum Compacting
- Varied Questioning

Assessment

- write a short story
- design a game
- write a skit
- debate a topic
- design a new product
- write a news article
- make a commercial
- complete a group project

Strategies

Begin slowly… Just begin!!

Tiered Assignments

A tiered lesson addresses a particular standard/key concept but allows several pathways for students to arrive at an understanding of these components.

*Decide how many tiers

*Decide how you will tier (content, process, product)

Remember: More advanced students shouldn't receive more work but more complex problems. The key is to challenge students, not to give them more of the same material.

**It's not about the amount of work; it's about the nature of the work!*

Let's Take a Look at Tiering in Practice

Tiered Assignments in Laura Gurick's Chemistry Classroom:

- Why is assessment a key part of differentiation? What kinds of assessments could/should these be?
- What aspects of your lesson can be tiered to meet students at their level?

Tiered Exit Cards in Marie Barchi's Algebra Classroom:

- Notice how Ms. Barchi quickly sorts the exit cards so she knows which students need reteaching.

Flexible Grouping

Become familiar with a range of flexible groupings:

- Whole class or half class
- Teams
- Small groups led by students
- Partners and triads
- Individual study
- One-on-one conferencing
- Pull out groups to teach mini lessons

Varying Questioning

Teachers ask 80 questions for every 2 questions posed by students; more disturbing, 80% of those questions are at the lowest level of Bloom's Taxonomy - recall and comprehension.

*Make certain that questions take into account the array of readiness levels that exists within one group of students. Specific questions could be prepared for specific students.

*Ensure that questions address the various levels of thinking so that students are encouraged to think critically. (Mark the level of each question)

Varying Questioning Using the “Big Questions” Method

If you allow questioning to be totally spontaneous, (some of which is a good thing) higher-order thinking questions are seldom asked.

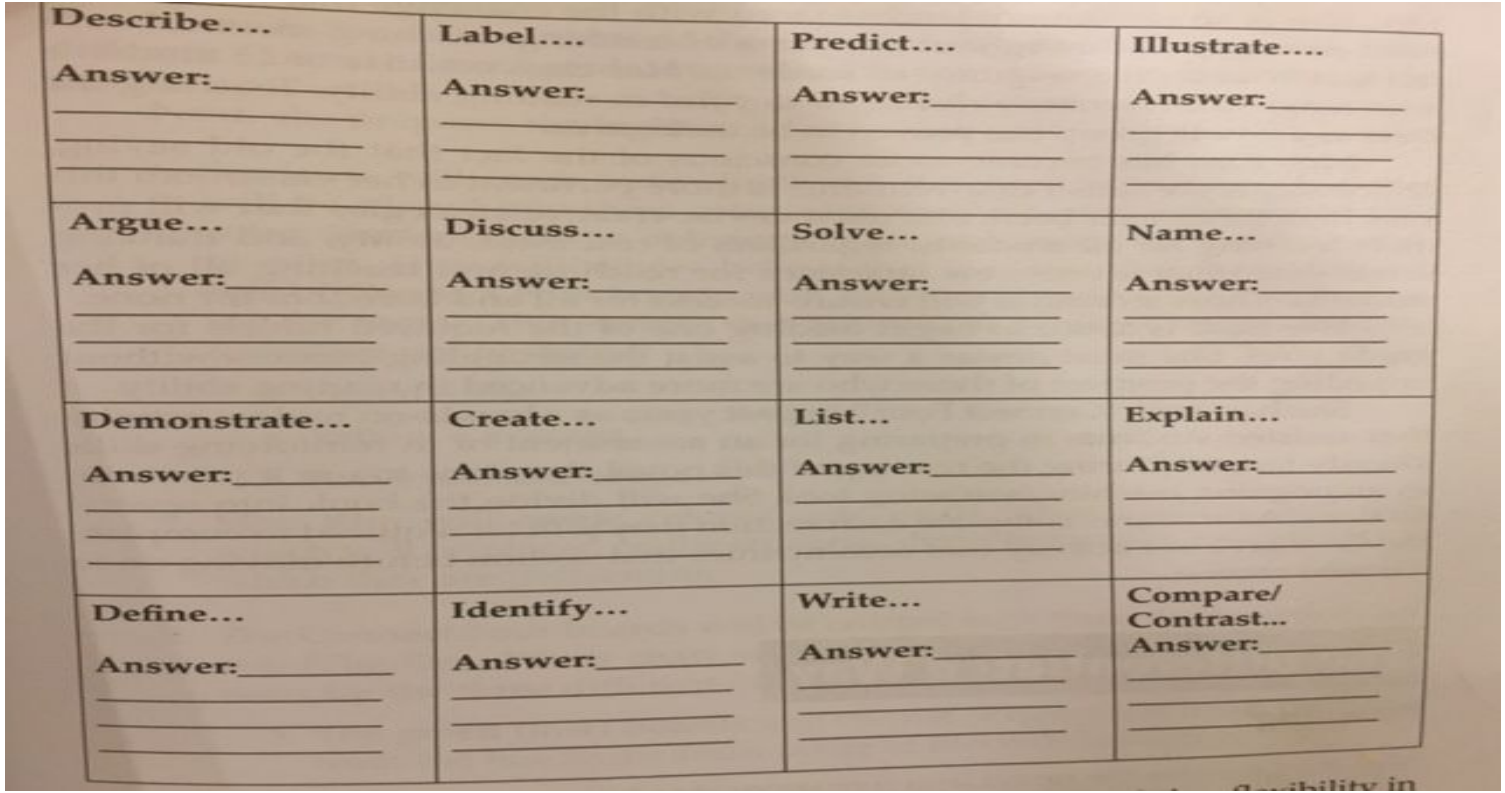
- Prepare several boxes of questions, enough boxes for several groups of students. Make sure each question is written on its own slip of paper.
- Question types should vary so they address all levels of thinking. On the back of the questioning slip, write the number of points that will be awarded for a correct answer. (Knowledge = 1 point, Comprehension = 2 points)
- Place students in groups of 3 or 4 and make one student the scorekeeper.
- Whole groups can compete against one another or individual students within each group.

Connect Four

Students have the flexibility while allowing their competitive sides to be challenged. :) You might design different boards based on readiness levels.

2 Medium	1	4	3
4	3 High	2	1
3	4	1 Low	2
1	2	3	4 Challenging

Connect Four



Describe.... Answer:_____	Label.... Answer:_____	Predict.... Answer:_____	Illustrate.... Answer:_____
Argue... Answer:_____	Discuss... Answer:_____	Solve... Answer:_____	Name... Answer:_____
Demonstrate... Answer:_____	Create... Answer:_____	List... Answer:_____	Explain... Answer:_____
Define... Answer:_____	Identify... Answer:_____	Write... Answer:_____	Compare/ Contrast... Answer:_____

Think Tac Toe

This is a nine square grid that allows students to choose how they will demonstrate their mastery.

- Activities vary in content, process and product.
- Activities tailored to address varied levels readiness, interests and learning styles.
- Students are expected to complete one to “three in a row”.
- The center square may be left open (allow students to choose or make it a mandated activity).

Think Tac Toe

The Pythagorean Theorem

Directions: *Complete the activities described in either one vertical or one diagonal row.*

Draw a right triangle and label the right angle, legs, and hypotenuse. State the relationship of the sides of a triangle.	Name a career in which one would have to use the Pythagorean Theorem. Give an example of when, where and how it would be used.	Design a teaching tool with a diagram of a proof of the Pythagorean Theorem. Label it for all to understand.
Complete all of the EVEN Practice Problems on p. 266 of your Prentice Hall text.	Complete the Practice Problems found at this site: http://regentsprep/Regents/math/fpyth/PracPyth.htm	Create four (4) real world problems that would need the use of the Pythagorean Theorem. Show the solutions.
Determine a set of 8 Pythagorean "TRIPLES." Prove them with equations.	Write a descriptive essay about Pythagoras: his life, accomplishments, and failures.	Find another mathematical theorem. State it, diagram its proof, and write a paragraph about why, how and where it works.

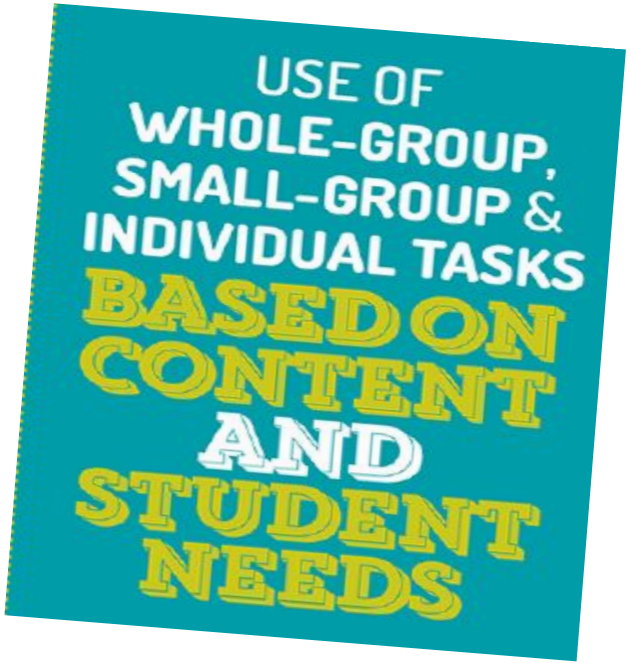
Summarize Facts or ideas which are important in determining genetics	**Classify** Dominant and recessive traits as they relate to Mendel's Pea Plants	**Draw** Meiosis and mitosis
Predict What a person might look like using the Punnett square	**Unit Test**	**Show** A model of a DNA strand with a key
Survey Genetics – hair color, eye color – graph your findings in a chart of your choice (Pie, bar, line, etc.)	**Interview** A person whose career or hobby deals with genetic/ reproduction	**Judge** 3 websites on genetics and heredity

Homework is Practice...

- Is every student required to complete the same assignment?
- What is its purpose?
- Are you grading their practice work?
- Why not consider giving an exit activity to see who has mastered the concepts?

Differentiate h/w based on exit assessment data!

The Bottom Line



Make it a goal to try one differentiation strategy a month! Just one a month - will put you on the path to successfully differentiating!