Differentiation: Tiered Lessons

The focus of a differentiated classroom is to implement strategies that will enhance learning for all students. One strategy that supports gifted students in the regular classroom is tiered lessons and assignments. The technique of "tiering" provides optimum learning for all students in the classroom by allowing the same concept to be developed using differing levels of instructional activities.

What are tiered lessons?

Tiered lessons are instructional lessons designed to meet the needs of a range of student learning in the areas of readiness, process and product. The tiered assignments and activities are leveled to meet the students' learning preferences and/or instructional levels.

According to Adams and Pierce (2006), tiered lessons are designed for all students to address the same academic standard or concept but at varying levels of depth, complexity, or structure. Tomlinson (1999) indicates that tiered lessons are essential for high quality differentiated instruction. "Tiered lessons allow several pathways for students to arrive at an essential understanding based on the students' readiness."(Adams and Pierce 2010, p.145)

Why use tiered lessons?

Tiered lessons are an avenue for teachers who know that their students need to work at varying degrees of readiness. "Implementing a tiered lesson implies that the teacher has a good understanding of the students' ability levels with respect to the lesson and has developed the tiers to meet those needs." (Adams and Pierce2010, p. 145)

When assignments are tiered for gifted learners they:

- extend the lesson objectives or goals to an advanced level
- provide increased rigor and complexity
- are more open-ended and encourage students to think deeply
- require the use of higher levels of critical and creative thinking and metacognition
- incorporate problem-solving skills

What are the steps for creating tiered assignments for the lesson?

1. Identify the academic standard and learning outcomes for the lesson.
2. Identify the concept to be developed.
3. Identify the essential questions to be answered.
4. Determine what the students will **k**now, **u**nderstand and be able to **d**o (skill) as a result of the lesson (KUD).
5. Decide what preassessment will be used to determine student readiness, learning process and/or performance levels to indicate student ability needs.
6. After giving a pre-assessment, determine how many tiers will be needed for the lesson (2-5 tiers are recommended).
7. Identify the appropriate formative/summative assessments that will indicate gifted student achievement growth for the lesson. For gifted students it is important to have lessons that will meet their academic needs in the content area. This will only be determined through the use of formative/summative assessments.
8. Identify which of the element(s) of the lesson will be tiered, content, process, or product. Keep in mind gifted student readiness, need for depth and complexity, student learning style preference, and how the learning outcome will be assessed.
9. Determine activities that increase the level of complexity/abstraction for each tier. Use a thinking skills model such as Structure of Knowledge, Habits of Mind, or Thinking Maps® t o develop higher level thinking and questioning; activities should be equally engaging and interesting at all tiers.
10. Determine materials/resources that will be needed.
11. Define work arrangements for the students; individual, partner, small group, or whole group.
12. Select products that are a match for the learning outcomes and demonstrate understanding in the content area. Consider having students create the rubric for their product. Students can also be given several product options to choose from to demonstrate their understanding and application.

How long are tiered assignments?

A tiered assignment may take from one to two days, depending on the standard and learning outcome. Some tiered assignments may involve more time, especially at the secondary level. The amount of time is based on the needs of students and how long it will take them to accomplish the learning outcomes.

How are students grouped for tiered lessons/assignments?

From the preassessment one is able to determine the number of tiers needed for the lesson. Students then may participate in a variety of grouping situations during the lesson (e.g. whole-class instruction, small-group, partner, or individual). Some gifted students prefer to work individually or with a partner. It is important to determine student preference for the work arrangement so that the gifted student does not feel like he/she is doing all of the work. Organize the classroom to maximize student learning for multiple groups. Expect that there will be student movement in the classroom and communicate expectations about how this will occur, keeping in mind noise levels, traffic patterns, and need for resources in different areas of the room.

How are tiered assignments graded?

There are many different ways to grade tiered assignments. Teachers need to reflect on teaching and grading philosophies. The grading system you apply may be impacted by assessment results and learning growth. Some teachers use a point system while others may use a rubric. In the tiered lessons elementary school and high school examples (CDE, 2012) you will find a performance rubric that is used to determine if the standards and the learning outcomes have been met by the student.

Where do I find other tiered examples?

Examples for elementary school mathematics and secondary reading can be found on the CDE website, http://www.cde.state.co.us/gt/resources.htm These examples are based on the Colorado Academic Standards (2010). The grade level expectations used refer to the regular classroom. For gifted learners these expectations will be one to two years advanced in relationship

to age peers. Thus, the example using sixth grade expectations in mathematics would be used with 4th or 5th grade gifted students. The high school example is designed for use with informational text about Conservation in America. This lesson also supports the Social Studies-Geography Colorado Academic Standards. However, this basic lesson could be used with any informational text that uses figurative and stylist language to support a specific cause (e.g. Civil Rights Movement, Civil War, or Revolutionary War). A template for creating your own tiered assignments can also be found on the CDE website.

More examples of tiered lessons can be found in the reference and resource sections from the listed authors. You can also refer to The Tiered Curriculum Project at: http://www.doe.in.gov/exceptional/gt/tiered_curriculum/welcome.html from the Indiana Department of Education that provides tiered assignments for grades K-12 in math, science, and language arts. These assignments are differentiated by readiness, interest, and learning styles.

Tiered Lessons Bibliography

References

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Tomlinson, C.A. (1999). *The Differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.

Resources

Armstrong, S., & Haskins, S. (2010). *A practical guide to tiring instruction in the differentiated classroom*. New York, NY: Scholastic Inc.

Kingore, B. (2008). *Differentiation: Simplified, realistic, and effective, how to challenge advanced potentials in mixed-ability classrooms.* Austin, TX: Professional Associates Publishing.

Tiered Lessons Elementary School Example

Grade Level Expectation: Sixth Grade **Content Area:** Mathematics

Academic Standard to be addressed: Standard: 3. Data Analysis, Statistics, and Probability

Concepts and skills students master: 1. Visual displays and summary statistics of one-variable data condense the information in data sets into usable knowledge.

Essential Question(s) to be answered:

1. When is one statistical measure better than another?
2. What makes a good statistical question?
3. Where do we use and collect data in real life experiences?

Learning Goals: KUD

Students will **Know**	Students will **Understand**	Students will **DO**
How to find the mean, median, mode and range of a data set.	How visual displays and summary statistics of one-variable data condense the information in data sets into usable knowledge.	d. ii. 3. Give quantitative measure of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall patterns and any striking deviations from the overall pattern with reference to the context in which the data were gathered. (CCSS: 6.SP.5c)

Tiered Lessons Elementary School Example

Preassessment to be used:

- Vocabulary match (Use the vocabulary words for this lesson's content area and match with the corresponding definition)
- KWL chart - student's responses are recorded and analyzed to determine tiers
- Concept map used to activate prior knowledge through brainstorming, previewing, and analyzing student's understanding

Number of tiers needed based on preassessment: 3

Formative/Summative assessments for the lesson:

1. KWL chart
2. Exit cards where students describe one thing they learned in that day and one thing they would like clarification about or more information about
3. Visual representation of findings
4. A & E card (Assessment and Evaluation Card) Bertie Kingore (*From Reaching All Learners: Making Differentiation Work*, 2007)
5. Student project with rubric created by students
6. Summary statement
7. Line graph

Tiered Lessons Elementary School Example

Activities tiered to increase level of complexity/abstraction – *Indicate if **content** or **process** is tiered*

	Activity *(title or description)*	Materials/Resources	Work Arrangement *(individual, partner, small group)*	Product
Tier 1	1. Content vocabulary definitions activity with the use of graphic organizers	1. Graphic organizers	1. Small group	1. Graphic organizer
	2. Group discussion of applications for using mean, median, mode and range	2. Video clips, modeled lessons, online resources	2. Partner	2. KWL chart
	3. Math activity task with single mode data set.	3. Print materials	3. Partner – Think/pair/ share	3. Exit Card
Tier 2	Tiered activities based on **content and process**.			
	1. Content vocabulary activity with graphic organizer	1.Graphic organizers	1. Small group	1. Graphic organizer KWL chart
	2. Based on the temperature from the last two weeks use mean, median, mode and range to predict the temperature for the next two weeks	2.Video clips, You Tube online math learning, math-aids.com	2. Partner	2a. Visual representation of the findings (ex. T-Chart, matrix). 2.b. A&E card

Tiered Lessons Elementary School Example

Tier 3	1. Investigate using mean, median, mode and range to determine one of the following: • predict temperature for next summer based on findings from current year • baseball scores from the Rockies games to determine the coach and team effectiveness for the season • cost effective vacation based on mileage, time, gas consumption, and affordability for a family of 4	1. Online information for data collection	1.Partner	1. Small group discussion regarding the criteria to be included for the student project rubric. The rubric is created using the established criteria to demonstrate the student learning outcomes.
	2. Create a creative, original visual presentation of findings from Activity 1; use a multimedia display	2. Graphic organizers PowerPoint Excel graphs	2. Partner	2. Presentation
	3. From your analysis of the above investigation answer the following questions:	3. Investigation results Graph paper or electronic graph	3. Individual	3. Summary statement Line graph

Tiered Lessons Elementary School Example

	◦ When would it be better to use the median instead of the mean? ◦ When might you use the mean instead of the median? ◦ What is the major difference when using mean and mode in this investigation? Create a line graph of the data to illustrate when it is better to use the median or mean for a given problem.	maker		