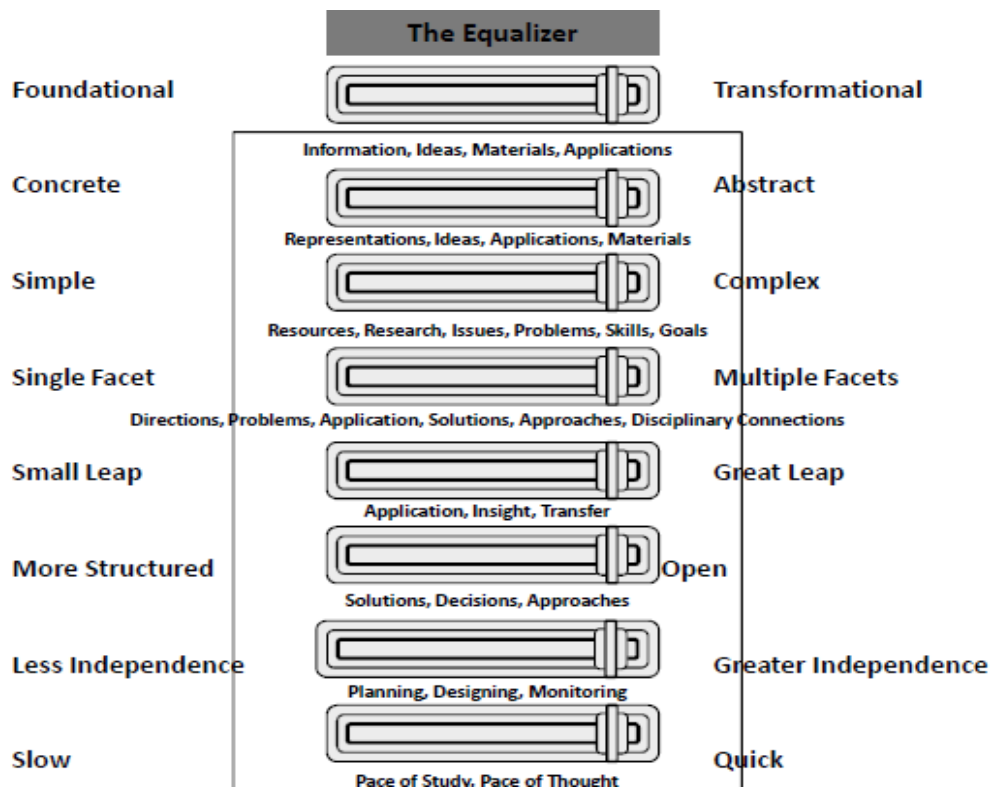


**“Tiered Instruction is like a wedding cake...
all one flavor, same color icing, but multiple layers”**

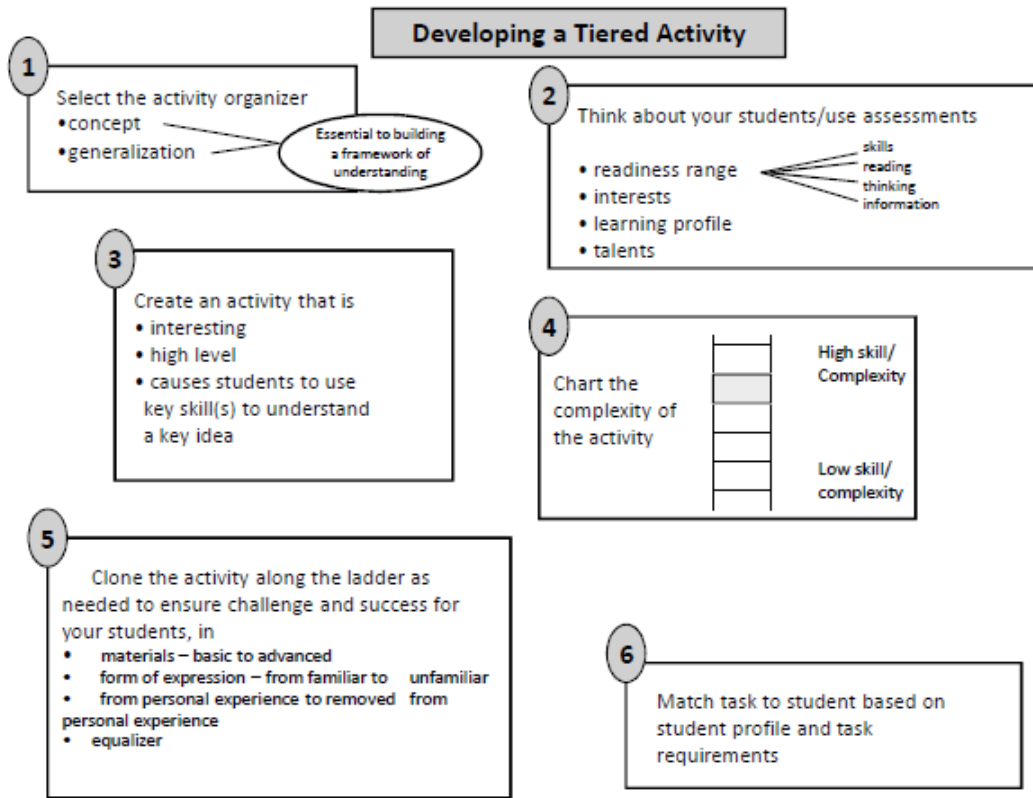
- Two conditions in a classroom are especially dangerous: anxiety and boredom. Anxiety occurs primarily when teachers expect too much from students. Boredom occurs when teachers expect too little. (Rathunde, Whalen) Tiered instruction can help eliminate these dangers.
- Tiered instruction blends assessment and instruction.
- Tiered instruction is a means of teaching one concept and meeting the different learning needs in a group. It can be an:
 - assignment
 - lesson
 - strategy
- Tasks and/or resources vary according to:
 - learning profile
 - readiness
 - interest
- Who is Tiered Instruction best for?
 - Lower leveled learners
 - On level learners
 - High leveled learners
 - **EVERYONE**
- Why Tiered Instruction?
 - For Best Practices tiered instruction is fundamental because:
 - each student is appropriately challenged.
 - as opposed to focusing on learning differences the focus is on the concept.
 - it **maximizes learning**.



Tiered instruction moves students from the left side to the right (not in all areas, however).



Ways to Develop and Write Tiered Lessons



Tiering a Lesson



What range of learning needs are you likely to address?	What should students know, understand, and be able to do as a result of the lesson? Know: Understand: Be Able to Do:	What's your "starting point lesson?" How will you hook the students?
What's your first cloned version?	What's your second cloned version of this activity?	What's your third cloned version of this activity?





Tiered Assignment Writing

1. Grade level and subject:
2. Standard:
3. Key concept, objective, or generalization:
4. What is essential to
 - o Know
 - o Understand
 - o Do
5. Prior Knowledge Necessary
6. Determine which area you will tier.
 - o Content (what you want the students to learn)
 - o Process (the way students make sense out of the content)
 - o Product (the outcome at the end of a lesson, lesson set, or unit--often a project)
7. Determine the type of tiering you will do: readiness, interest, or learning profile.
 - o Readiness is based on the ability levels of the students.
 - o Interest is based on their interest in a topic
 - o Learning profile using Gardner's Multiple Intelligences.

Based on the above decisions, determine how many tiers you will need and develop the tiers.

8. Assessment



Examples of Tiered Instruction

Lesson by Dr. Cheryll Adams: Subject: Biology/Life Science Grade: Seventh, Ninth

Standard: #4 The Living Environment

Key Concept: DNA provides for both the continuity of traits from one generation to the next and the variation that in time can lead to differences within a species and to entirely new species.

Generalization: A physical or mathematical model can be used to estimate the probability of real-world events.

Background: Students have been learning about the fundamentals of genetics, including genes and chromosomes. Based on their responses to a quiz covering test crosses, genotypes, and phenotypes, students have been placed in one of three groups by the teacher.

Tiered in process according to readiness

Mendel Group- Tier I

Students work in pairs. Each group has 50 red beans and 50 white beans in each of two coffee cans. Assume the beans represent alleles for flower color in a certain plant. Red is dominant over white. Assume one can represents the female parent; the other can represents the male parent. Without looking into the cans, remove one bean from each can. Place the pair of beans into one of three separate groups: red/red, red/white, white/white. Continue until all beans are removed. Count the number of pairs in each group and record them in a table. Record the genotypes as well. How many genotypes have resulted from this exercise? What are they? What is the genotypic ratio? How many phenotypes have resulted? Describe them. What is the phenotypic ratio?

Sutton Group (Tier II)

Using a Punnett square to predict the results of a trihybrid cross. In the fruit fly, *Drosophila*, the following genes are located on separate chromosomes:

GENE	DOMINANT ALLELE	RECESSIVE ALLELE
1	eyes (E)	eyeless (e)
2	hairy body (H)	hairless body (h)
3	large wings (L)	small wings (l)

Predict the results of a cross between two fruit flies, both heterozygous, for all the traits above. Use a Punnett square to show the results. What are the phenotypic ratios predicted by this cross?

Franklin Group (Tier III)

Using a Punnett square to diagram polygenic inheritance, a case in which a single trait is the result of the interaction of a number of genes.

In wheat, the color of the kernel is controlled by two pairs of genes. These genes are R /r and R /r . Complete a Punnett square showing the result of a cross between two individuals heterozygous for both genes.

Use the following key to answer the questions below.

R R R R = dark red kernels r r R R = medium red kernels

R R R r = medium dark red kernels R r r r = light red kernels

R r R R = medium dark red kernels r r R r = light red kernels

R r R r = medium red kernels r r r r = white kernels

R R r r = medium red kernels

What is the phenotypic ration of red to white kernels

What is the phenotypic ratio of dark red to medium dark red kernels?

What is the phenotypic ratio of medium dark red to medium red kernels?

What is the phenotypic ratio of medium red to light red kernels?

What is the phenotypic ratio of dark red to white kernels?

Assessment

The teacher will informally assess each student's work as she moves from group to group. Information will be recorded on sticky notes to be placed in the each student's file after class. Students will return their completed worksheets which will be checked for accuracy as a means of formal assessment.

Secondary Tiered Assignment

Task

Students will analyze parallel pieces of writing to explore the premise that we are responsible for those we tame. Students will frame an argument to support their position.

Group 1

Read pages from The Little Prince

- Complete an analysis matrix that specifies the fox's feelings about responsibility toward those we tame and why he believes what he does.

Read Bloodstain

- Complete an analysis matrix on the beliefs of the main character on the same topic.
- Select a newspaper article from the folder.
- Write a paragraph or two that compares beliefs of people in the article with the two characters.
- What advice would you give children about responsibility toward people we tame?
- Brainstorm on paper and then either:
 - Write a letter to a child giving your advice.
 - Write guidelines for adults who affect children's lives.
- Draw and explain a blueprint for becoming a responsible person.
- Peer revise and then peer edit your work.

Group 2

Read pages from The Little Prince

- Find at least one piece of writing that shares the fox's view on responsibility for those we tame.
- Find at least 2 contrasting pieces.
- Your selections must include at least 2 genre.
- Develop notes on 2 views of responsibility with reasons and illustrations from your selections.
- Be sure you are thoughtful about each view.

Then either:

- Write an editorial about the implications of the two approaches for our school.
- Write an interior monologue of a teen at a point of decision about responsibility for someone he/she has tamed.
- Create a series of editorial cartoons that look at the ripple effect of such decisions in history, science, and our community.



Developed by Tominson, 98

A High School Tiered Lesson PHYSICS

As a result of the Lab, students should:

Know

Key vocabulary (thrust, drag, lift, fluid, pressure, velocity, camber, airfoil, chord, trailing edge, leading edge)

Understand

Bernoulli's Principle—As the velocity of a fluid increases, its pressure decreases. (Moving fluid creates an area of low pressure. Decrease in pressure on the top of the airfoil causes lift.)

Newton's Third Law of Motion (For every action, there is an equal and opposite reaction)

Aerodynamics is the study of forces acting on an object because air or another gas is moving.

Be Able to Do

Construct objects that project themselves through space in different ways as a demonstration of student knowledge of key information and understanding of key principles.

Great opportunity to make teams of theoretician/scholars and designer/builders

In the lab students make

Paper Airplanes that fly for
Maximum Distance
Maximum Hang Time
Tricks



easiest
↓
Hardest

Kites

Diamond
Box
Triangle-Layered

easiest
↓
hardest



Pinwheels

Forward Motion
Backward Motion
Upward Motion

easiest
↓
hardest





Tiered Lesson

Elementary
Physical Education

Skill: Dribbling and Basketball

- 1) Dribble from point A to point B in a straight line with one hand
 - Switch to the other hand and repeat.
 - Use either hand and develop a new floor pattern from A to B (not a straight line)
- 2) Zigzag
 - One hand
 - Other hand
 - Increase speed
 - Change pattern to simulate going around opponents
- 3) In and out of pylons as fast as possible
 - Change hand
 - Increase speed
- 4) Dribble with one hand—and a partner playing defense.
 - Increase speed and use other hand
 - Trade roles
- 5) Through pylons, alternating hands, & partner playing defense
 - Increase speed
 - Trade roles



Judy Roll-Hilton Central Schools - Hilton, NY

Grade Level	Differentiated by Readiness	Differentiated by Interest	Differentiated by Learning Styles
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Ninth Grade	Math Science Language Arts	Math Science Language Arts	Math Science Language Arts
Tenth Grade	Math Science Language Arts	Math Science Language Arts	Math Science Language Arts
Eleventh Grade	Math Science Language Arts	Math Science Language Arts	Math Science Language Arts
Twelfth Grade	Math Science Language Arts	Math Science Language Arts	Math Science Language Arts

Completed by Cheryll Adams, Rebecca Pierce, and Felicia Dixon, Ball State University.