



**TRUMBULL COUNTY
EDUCATIONAL
SERVICE CENTER**

LEADING FOR EDUCATIONAL EXCELLENCE



Why are you here?

To face the most import FEAR of all...

Differentiationophobia!





DIFFERENTIATION STRATEGIES:

SESSION GOALS

1. After completing this session, teachers will have a clear understanding of the basic principals of differentiation.
2. Teachers will understand how to construct either a choice board or learning menu activity that supports a learning goal.
3. Teachers will begin to construct either a choice board or learning menu for an upcoming lesson or unit of study.



WHAT IS DIFFERENTIATION?

1. Pick a column
2. Think and write silently for 3 to 5 minutes
3. Be ready to share when time is called

Write a definition of differentiation you feel clarifies its key intent, elements and principles.

Explain to a new teacher what differentiation is in terms of what he/she would be doing in the classroom—& why. The definition should help the new teacher develop an image of differentiation in action.

Develop a metaphor, analogy, or visual symbol that you think represents and clarifies what's important to understand about differentiation.

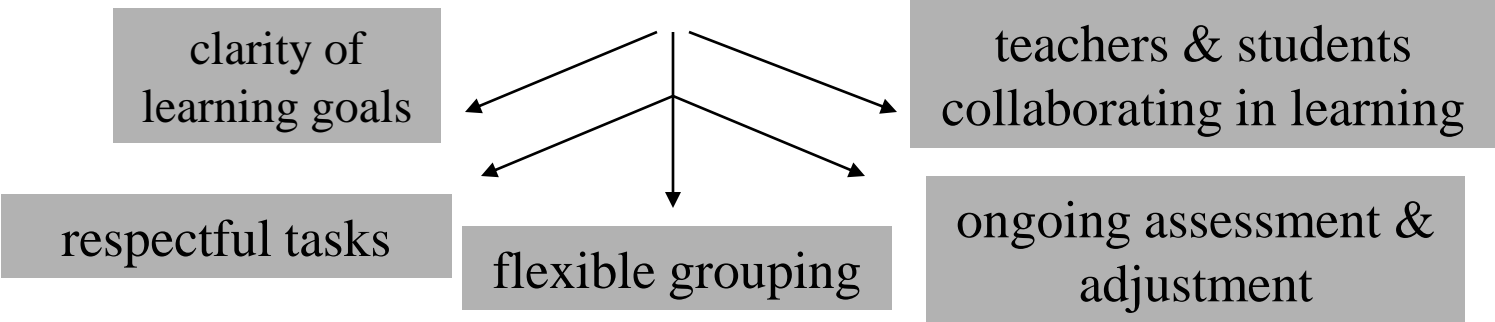


DIFFERENTIATION OF INSTRUCTION

Concept Map

is a teacher's response to learners' needs

guided by general principles of differentiation, such as



Teachers can modify



according to student





DIFFERENTIATION

- **Content**
- Process
- Product
- Environment
- Assessment

Curriculum
Presentation
Pacing
Materials



DIFFERENTIATION

- Content
- Process**
- Product
- Environment
- Assessment

Grouping
Complexity
Choice
Student-
created



DIFFERENTIATION

- Content
- Process
- Product**
- Environment
- Assessment

Modes of
expression

Materials

Formats



DIFFERENTIATION

- Content
- Process
- Product
- Environment**
- Assessment

Seating
Grouping
Movement
Atmosphere



DIFFERENTIATION

- Content
- Process
- Product
- Environment
- Assessment**

Rubrics
Grading
Format
Modes of
expression



Your Turn...



- With an elbow partner, share some ways you currently differentiate for your students that has been successful for you.
- Did you differentiate the content, process or product? How?
- Did you alter the environment or assessment methods for the students? In what ways?



LEARNING GOALS & ACTIVITIES AND/OR ASSIGNMENTS

Subject	Learning Goal	Activities/Assignments
Science	Students will be able to identify similarities and differences between various planets in the solar system.	<ul style="list-style-type: none">*Students will watch the video on the characteristics of the planets, moons and sun.*Take notes and list the characteristics of the planets.*Read pp 24-32 and complete the graphic organizer.



WHAT ARE CHOICE BOARDS & LEARNING MENUS?

- Activities and assignments that give students a choice as to what they want to do in order to meet the requirements of the class.
- They can be used for a daily lesson, a week long period, or even a monthly study.
- They deal with readiness and the interest of the student.



CHOICE BOARDS & LEARNING MENUS

- Empowering students through **CHOICE** while ensuring adherence to important **LEARNING GOALS**.
- Also called Tic-Tac-Toe Boards, Think-Tac-Toe or Learning Menus.
- A type of learning that provides a “menu” of activities-some that all students must do, and some that allow students choices.
- Ensures that each learner focuses on knowledge, understanding and skills designated as essential.



- Different work, not more or less work
- Easier choice board for struggling students and a more challenging choice board for proficient or advanced students.
- Equally active, interesting and engaging assignments
- Same learning goals, requiring the use of key concepts & skills
- Maintains teacher control, basically a learning contract
- Effective assessments at the end of a unit
- Can be tiered for challenge
- Focus on objectives; not just a variety of tasks



LEARNING MENUS

- Learning menus outline a variety of instructional options targeted toward important learning goals.
- Students are able to select the choices which most appeal to them.
- The teacher directs the menu process, but the student is given control over his/her choice of options, order of completion, etc.



DINNER MENU

Appetizer (Everyone Shares)



Main Menu (Select One)



Side Dishes (Select at Least Two)



Dessert (Optional)



Primary Length [Example](#)

Primary Poetry [Example](#)

Diner Menu—Photosynthesis

Appetizer (Everyone Shares)



- Write the chemical equation for photosynthesis

Entrée (Select One)



- Draw a picture that shows what happens during photosynthesis.
- Write two paragraphs about what happens during photosynthesis.
- Create a rap or song that explains what happens during photosynthesis.

Side Dishes (Select at Least Two)



- Define respiration, in writing.
- Compare photosynthesis to respiration using a Venn diagram.
- Write a journal entry from the point of view of a green plant.
- With a partner, create and perform a skit that shows the differences between photosynthesis and respiration.

Dessert (Optional)



- Create a test to assess the teacher's knowledge of photosynthesis.




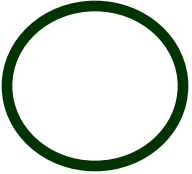
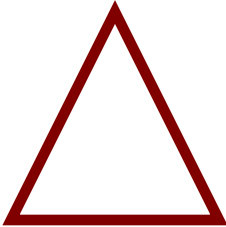
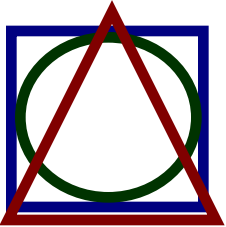
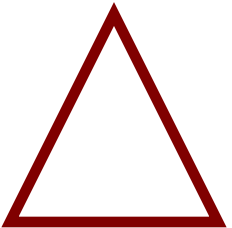
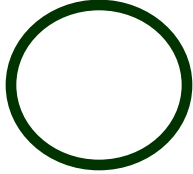
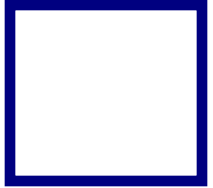


THINK-TAC-TOE

- Bloom Taxonomy
- Multiple Intelligences
- By Readiness
- Choice



- A simple way to give students choices.
- Activities should be structured so that students must grapple with the key ideas and use the keys skills central to the topic or area of study

	Free Choice	
		
	Free Choice	



3 CHOICES

CHOICE BOARD

A large, empty rounded square box with a black border, intended for the first choice.A large, empty rounded square box with a black border, intended for the second choice.A large, empty rounded square box with a black border, intended for the third choice.



6 CHOICES

Choice Board




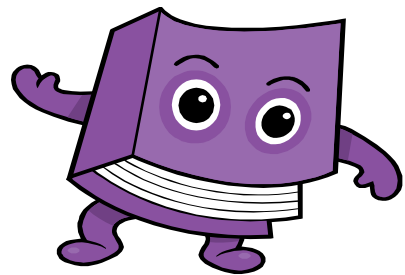

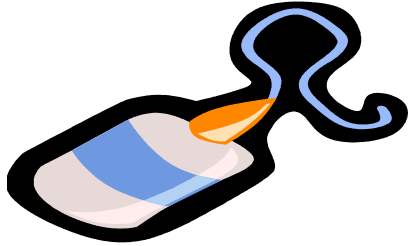


TIC-TACK-TOE CHOICE BOARD





Choice Board



CHOICE BOARD K-MATH

<p>1. Choose a number.</p> 	<p>1. Get a magazine.</p> 	<p>1. Cut out pictures that show your number.</p> 	<p>1. Glue your pictures to the correct number poster.</p> 
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OR

<p>1. Choose a number.</p> 	<p>1. Look at our math word cards.</p> 	<p>1. Find a card that matches the number you chose.</p> 	<p>1. Sort them into the correct basket.</p> 
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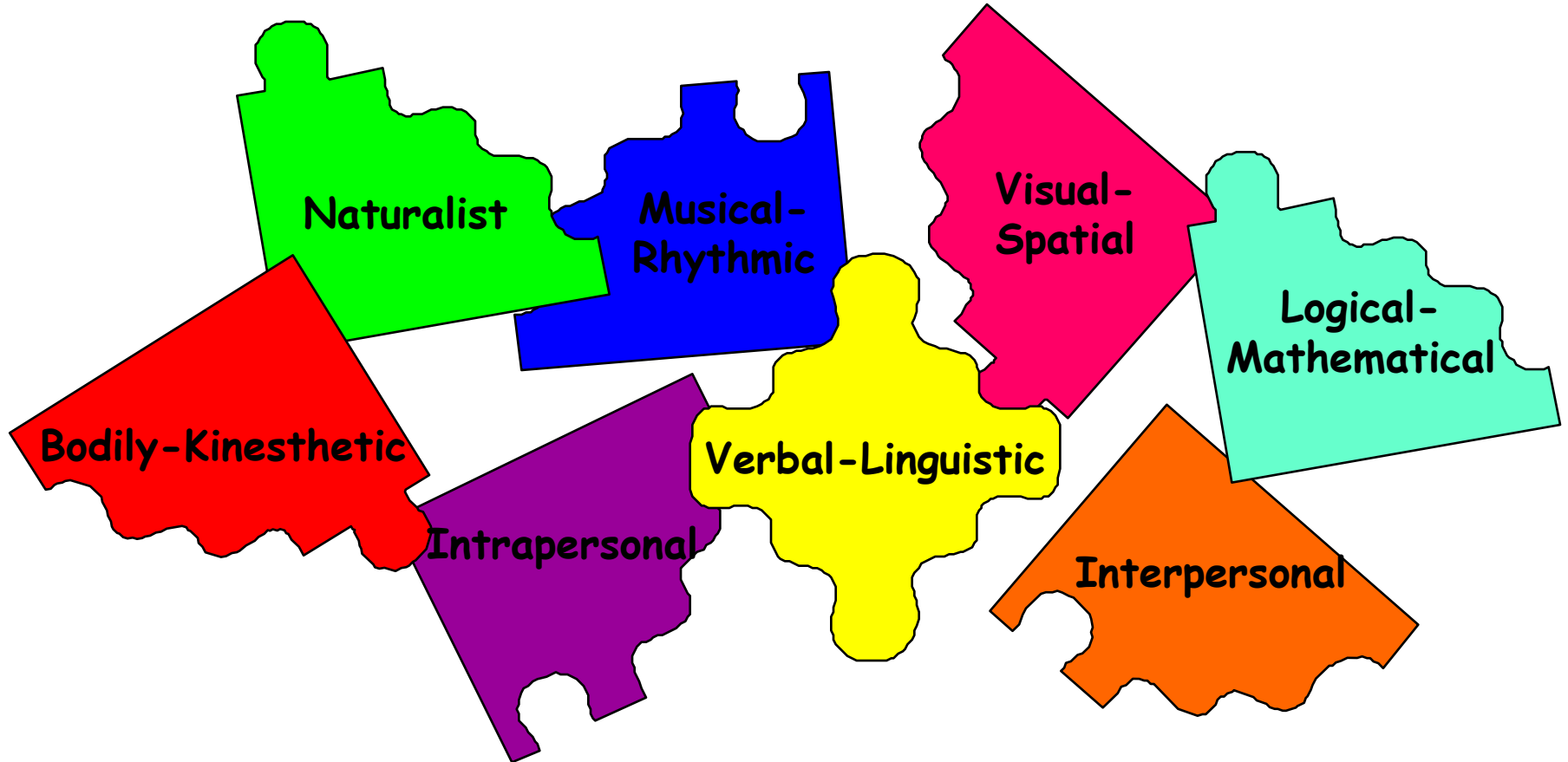
CHOICE BOARD K-READING

Letter Review

<p>Cut pictures from magazines that begin with the letter.</p> 	<p>Find words that have that begin with that letter around the room.</p> 	<p>Write the letter 10 times on paper.</p> 
<p>Read a book and find words that begin with that letter. Write these words down.</p> 	<p>Use the magnetic letters to copy the list of words.</p> 	<p>Find a friend that has the letter in their name.</p> 



MULTIPLE INTELLIGENCES



PRIMARY PLANT THINK-TAC-TOE

Draw and label the 4 parts of a plant. Use seeds to make your own plant picture
1. Art Smart

What would it be like to be a seed growing into a flower? Write about this in your journal.
2. Me Smart

Learn about what plants need to grow. Present your information to the class.
3. People Smart

Sort the seeds at the plant center. Make a pattern with the seeds. Count the seeds.
4. Math Smart

READ Eric Carle's book "The Seed". Draw what you learned about how seeds travel.
5.

Read the poem, "The Seed". Act out how a seed grows into a flower.
6. Body Smart

Using the materials at the science center, plant a seed and watch it grow. Draw and write about what you see.
7. Nature Smart

Make a list of words that have to do with plants, seeds and gardening.
8. Word Smart

Using music, show how seeds move.
9. Music Smart

Fractions, Decimals, & Percents Tic-Tac-Toe Student Choice Activities

Standards/Objectives: Uses fractions, decimals and percents interchangeably
Compares and orders whole numbers, integers, fractions and decimals

<p>1. Use a <u>visual organizer</u> to compare and contrast fractions, decimals and percents.</p> <p>(Visual)</p>	<p>2. Make a five minute <u>oral report</u> explaining how to convert percentages to fractions and decimals. Use visuals in your presentation.</p> <p>(Verbal)</p>	<p>3. Convert a <u>recipe</u> that uses fractions into decimals and percents. Display the recipe and <u>cook</u> the food to share with your classmates.</p> <p>(Kinesthetic)</p>
<p>4. Create a <u>spreadsheet</u> of a budget with at least ten items. Each item should be in dollar (decimal) amounts. Identify the percentage of the budget spent on each item.</p> <p>(Technological)</p>	<p>5. Write and perform a <u>poem</u> or <u>rap</u> about fractions, decimals and percents and how they work interchangeably.</p> <p>(Musical/Rhythmic)</p>	<p>6. Make a <u>chart</u> comparing fractions, decimals and percents.</p> <p>(Logical/Mathematical)</p>
<p>7. Research an environmental topic of interest such as endangered species or global warming. Write a <u>report</u> of your findings using fractions, decimals or percents.</p> <p>(Naturalist)</p>	<p>8. Write a <u>journal</u> or <u>diary</u> of a day in your life without fractions or decimals. Include at least 10 things that would be different.</p> <p>(Intrapersonal/Reflective)</p>	<p>9. In a group with at least two other students, <u>discuss</u> real life situations where you use fractions, decimals or percents. Make a <u>list</u> of at least 10 uses and <u>act</u> these out for the class.</p> <p>(Interpersonal/Group)</p>

I/we chose activities # _____, # _____, and # _____.

Choice Board

<p>Verbal/Linguistic (Word Smart)</p> <p>Choose an Artist. Write a presentation on the life of this artist. Option: Present your presentation to the class.</p>	<p>Logical/Mathematical (Math Smart)</p> <p>Research the Op Art Period. Create an Optical Illusion on paper or using Adobe Photoshop. Option: Create a String Art Project</p>	<p>Intrapersonal (Self Smart)</p> <p>Choose your favorite artist or art period. Write a self reflection paper supporting why the artist or art period is your favorite. Option: Compare and Contrast two of your favorite artist or art periods.</p>
<p>Interpersonal (People Smart)</p> <p>With one partner, choose an artist or art period that you both like. Create a collaborate work of art in the style of artist or art period you both choose. Option: Present your collaborative work of art to the class.</p>	<p>ActivInspire Presentation (Computer Smart)</p> <p>Create an art history flipchart using ActivInspire. Choose an artist, your favorite work of art they created, and write two paragraphs describing the art and artist. Option: Present your Flipchart to the class.</p>	<p>Musical/Rhythmic (Music Smart)</p> <p>Write a song, chant or rap about an artist or art period. Option: Present the song, chat or rap to the class.</p>
<p>Visual/Spatial (Art & Space Smart)</p> <p>Recreate a piece of art in the style of an artist or art period. Option: Present your art to the class and explain how your art represents the artist or art period.</p>	<p>Bodily/Kinesthetic (Body Smart)</p> <p>Research an artist or art period. In partners or small groups, write a play about the artist or art period. Option: Record your play before or after school or present live to the class.</p>	<p>Naturalist (Nature Smart)</p> <p>Choose an artist whose art represents your favorite part of nature. Create a piece of art in the style of this artist. Option: Present your art to the class and describe why you choose this artist.</p>

Julius Caesar Tic-Tac-Toe Student Choice Activities

Standards/Objectives: Applying reading to historical background
Comprehension and interpretation of character development
and motivation

<p>1.</p> <p>Create a <u>map</u> of the Roman Empire during the time of Caesar. Show which areas he conquered and major cities of the ancient world.</p>	<p>2.</p> <p>Write a <u>poem</u> that reflects Brutus' inner conflict before he decided to join the conspiracy against Caesar.</p>	<p>3.</p> <p>Take part in a <u>debate</u> over whether the killing of Julius Caesar was justified. Defend your position with facts from historical sources and ideas from the Shakespearean play.</p>
<p>4.</p> <p>Write and present Caesar's funeral <u>speech</u> as it might have been given by Octavius instead of Antony. Remember that Octavius was a teenager at the time of Caesar's death.</p>	<p>5. (Required activity)</p> <p>Read Shakespeare's play "Julius Caesar" and participate in class discussion.</p> <p>Write a final <u>essay</u> discussing the character motivation of either Caesar or Brutus.</p>	<p>6.</p> <p>Make a <u>Venn diagram</u> comparing and contrasting the motives of Cassius and Brutus.</p>
<p>7.</p> <p>Create a <u>brochure</u> advertising Rome in 44 B.C. Include food, lodging and entertainment. Be historically accurate.</p>	<p>8.</p> <p>Do a <u>PowerPoint presentation</u> summarizing the motivations of five different characters in the play "Julius Caesar."</p>	<p>9.</p> <p>Write the <u>lead story</u> for a Roman newspaper in 44 B.C on the day of Caesar's assassination. Include a headline and answer the questions who, what, when, why and how.</p>

I/we chose activities # _____, # _____, and # _____.

LEARNING CONTRACT----THINK-TAC-TOE

ANCIENT CIVILIZATIONS – GRADE 6

GEOGRAPHY As an ancient mapmaker, you are commissioned to create a map of your land including all natural land forms, a compass rose and a scale. Also find examples of each land form in a modern civilization.	Imagine that you are an ancient citizen who awakens to discover that all water has evaporated. Explain in detail how this would alter your way of life. Also, do this for the town where you live.	Assume you are persuading others to visit your ancient civilization. Design a descriptive, accurate travel brochure. Include both natural and man-made elements that would attract tourists.
PEOPLE You are an ancient scribe. Write and illustrate a thorough description of a famous character from each time period being studied. Profile yourself also.	Assume the identity of a famous person from the given time period. Create a journal entry reflecting the ideas, values, and components of daily life for that person & you.	You are a famous sculptor. Create a 3D representation of a well-known leader, god, goddess, or common citizen. Include a museum exhibit card.
CONTRIBUTIONS Written language is an essential part of everyday life. Your task is to create an alphabet. Include a translation into modern English, a written description of the language development a & a 3D artifact of the new language.	Recreate in 3D form a famous work of architecture from your time period. Compare and contrast this piece to one piece of modern day architecture. Find one example of this architecture's presence in modern day society.	Find a way to explain and show the importance of music and the arts to your culture. Also show at least 2 examples with roots in our time.

Human Body Tic-Tac-Toe Student Choice Activities

Standards/Objectives: Identifies major body systems and their functions
Names and describes important parts of the body

<p>1. Create a <u>two minute public service announcement</u> that addresses things people can do to their bodies that have a negative influence on the skeletal or muscular system or both. Make this announcement in your class or to the entire school during the time for school wide announcements.</p> <p>(Skeletal & Muscular systems)</p>	<p>2. Make a <u>poster</u> showing five different exercises that address five different muscles. For each exercise include:</p> <ul style="list-style-type: none"> - Name of exercise - Name of muscle - Illustration of muscle - Illustration of exercise - Written steps to perform the exercise <p>(Skeletal & Muscular systems)</p>	<p>3. Visit www.medtropolis.org. Click on the Skeletal System section and put together a <u>virtual skeleton</u> successfully. Print out your work.</p> <p>(Skeletal & Muscular systems)</p>
<p>4. Make a <u>graph</u> showing the percentages of red blood cells, white blood cells and platelets in blood. Write an <u>explanation</u> of the function of each.</p> <p>(Circulatory system)</p>	<p>5. Draw a <u>diagram</u> showing how the circulatory system works. Label all major parts.</p> <p>(Circulatory system)</p>	<p>6. Research diseases of the circulatory system such as angina, high blood pressure, heart disease, or heart attacks. Do a three minute <u>oral report</u> explaining the causes of these diseases and how they can be prevented.</p> <p>(Circulatory system)</p>
<p>7. Write a <u>paragraph</u> explaining how the digestive and excretory systems are related to one another. Include a diagram.</p> <p>(Digestive & Excretory systems)</p>	<p>8. Write a <u>short story</u> describing life without teeth or gums. Include effects on the digestive and excretory systems.</p> <p>(Digestive & Excretory systems)</p>	<p>9. Create a set of ten <u>interview questions</u> about the digestive and excretory systems. Interview a doctor or nurse and write down their <u>answers</u> to your questions.</p> <p>(Digestive & Excretory systems)</p>

I/we chose activities # _____, # _____, and # _____.

Civil Rights Movement Tic-Tac-Toe Student Choice Activities

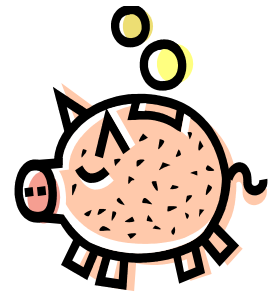
Standards/Objectives: Understand the importance of the Civil Rights movement in U.S. history
Evaluate ways individuals and groups can change history

<p>1. Make a time line showing 10 major events in the Civil Rights movement from 1954-1968.</p> <p>(Easiest)</p>	<p>2. Make a bulletin board of 5 important Civil Rights court cases. Include pictures and important details.</p> <p>(Easiest)</p>	<p>3. Choose a significant person in the Civil Rights movement. Find 3 web sites about this person. List each website and write a short summary of the information found in each.</p> <p>(Easiest)</p>
<p>4. Choose a significant person in the Civil Rights movement. Prepare a list of 10 questions you would like to ask this person. Do research to find the answers and write them down in interview format.</p> <p>(More Difficult)</p>	<p>5. Develop a detailed chart showing at least 5 major differences in daily life for blacks and whites during the Jim Crow era. Based on this information, write a paragraph highlighting your conclusions and ideas about this era.</p> <p>(More Difficult)</p>	<p>6. Create Jeopardy questions about important people and events of the Civil Rights era. Include 5 categories of questions with 5 questions in each category. Write your questions and answers on index cards.</p> <p>(More Difficult)</p>
<p>7. Research Martin Luther King, Jr. Find out how he dealt with and communicated to the American people about the injustices of racial prejudice. Do you think his methods would be effective today? Write a three page position paper explaining your point of view.</p> <p>(Most Difficult)</p>	<p>8. Find out about the Ku Klux Klan, the Niagara Movement, the NAACP and the National Urban League. Write an essay about the effects each had on the civil rights movement and how they affected and responded to each other.</p> <p>(Most Difficult)</p>	<p>9. Read a fiction book set during the Civil Rights era. Create a Power Point presentation summarizing the book. Include plot, characters, setting and theme. End your presentation by evaluating the impact of the civil rights movement on the characters in the book.</p> <p>(Most Difficult)</p>

I/we chose activities # _____, # _____, and # _____.



Think-Tac-Toe Money Unit



Complete any three boxes. The products and assignments are due by _____.

<p>Complete the Sweet Treat shopping cut and paste activity sheet.</p>	<p>Complete the file folder games on money.</p>	<p>Count the money amounts in each piggy bank and record the amount on the recording sheet.</p>
<p>There are 13 different ways to make 25 cents using a quarter, dimes, nickels, and pennies. Use the table worksheet to record the ways that you can find.</p>	<p>Draw a picture of a toy you want. Tell how much it will cost. Then draw the money to show its cost.</p>	<p>Write an explanation to someone telling how you would count the money in the money envelope.</p>
<p>Complete the Money riddles activity.</p>	<p>Play the Shop 'Til You Drop game. You will turn in your shopping list after you play this game.</p>	<p>Complete the Choices, Choices worksheet OR In the Garden worksheet</p>

BIOLOGY

<p>Make and present a 3D model of a particular organ from one of the human body systems.</p>	<p>Write and recite a poem about the importance of a body systems, include appropriate, relevant vocabulary.</p>	<p>Write and perform a rap song that teaches the organs and functions of one of the human body systems.</p>
<p>Write a children's story from the perspective of a red blood cell as it travels through the bone marrow, through the heart, to an extremity, and back.</p>	<p>Write a children's story from the perspective of a banana through the human digestive system.</p>	<p>Write an essay on the school lunch program. Include student, lunchroom personnel, and parent's perspectives.</p>
<p>Create a game for learning the organs and structures of the circulatory system, including blood flow.</p>	<p>Create a PowerPoint about the health risks of obesity. Use graphs & charts to show the increase in obesity and related health issues.</p>	<p>Create a game for learning the organs and structures of the digestive system.</p>



PLANNING FOR RIGOR

Create: Generating new ideas, products, or ways of viewing things

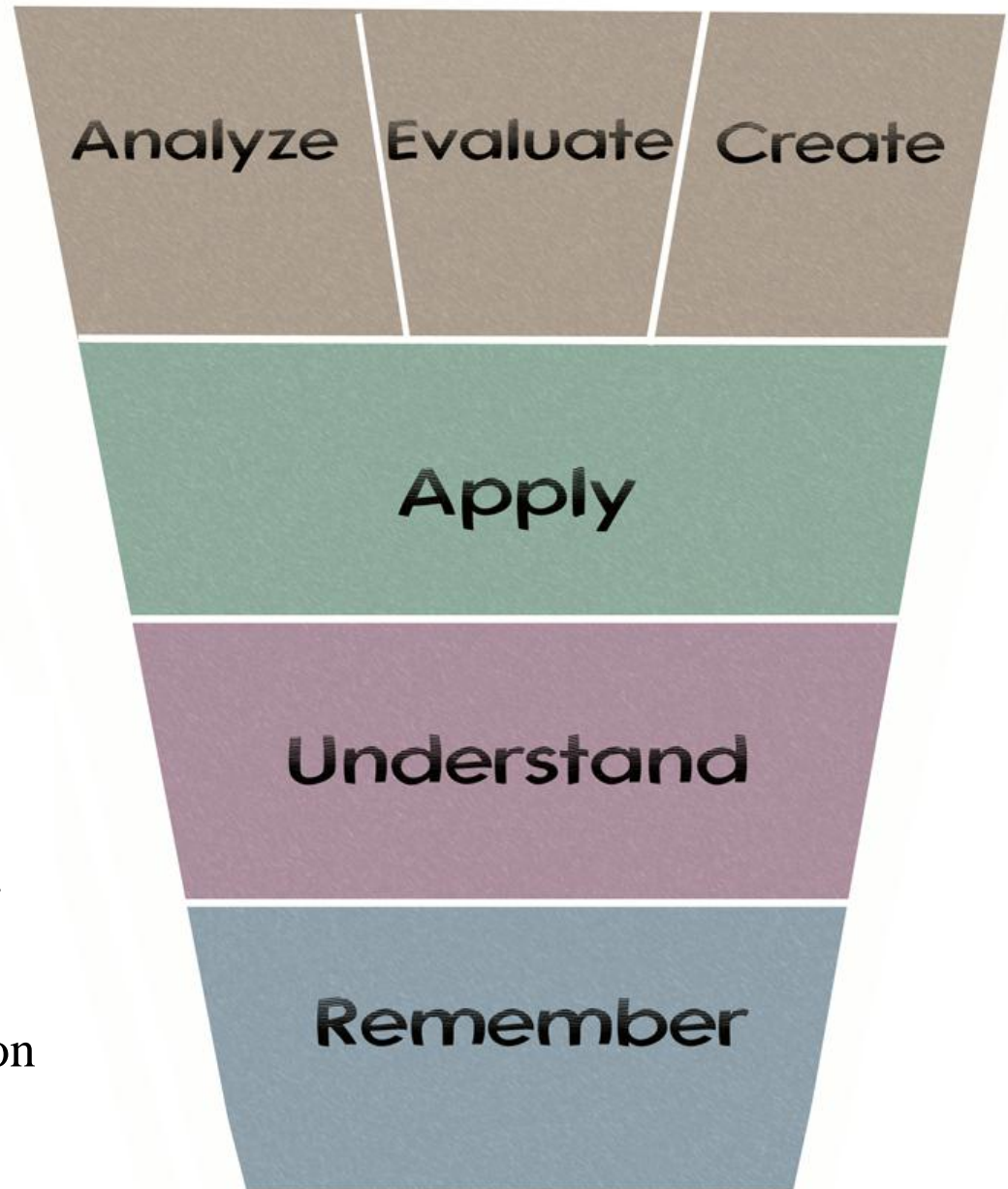
Evaluate: Justifying a decision or course of action

Analyze: Breaking information into parts to explore understandings & relationships

Apply: Using information in another familiar situation

Understand: Explaining ideas or concepts

Remember: Recalling information



BLOODY SUNDAY – THINK-TAC-TOE

<p><u>Imagine (Creating)</u> You are a child in the Selma to Montgomery march on Bloody Sunday. What are you thinking? Write a journal entry.</p>	<p><u>Compare (Understanding)</u> Compare this event to another event in the Civil Rights Movement studied or seen this month. Compose a rap song about the two events.</p>	<p><u>Change (Creating)</u> You are a Caucasian Freedom Rider coming from Ohio. What would have happened if you had fought back with violence in Selma? Draw a picture with a one sentence description.</p>
<p><u>Locate (Remembering)</u> Find where Ellen Levine talks about Viola Liuzzo. Write a journal entry stating the page and reflecting on her sacrifice.</p>	<p><u>Create (Creating)</u> Come up with a way to share with the class about something you read in Ch. 7. Get your idea approved by the teacher.</p>	<p><u>Describe (Understanding)</u> You are the media specialist. Describe this event as a news reporter on TV.</p>
<p><u>Respond (Understanding)</u> Respond to Ellen Levine or any person about whom you've read by writing him or her a friendly letter.</p>	<p><u>Build (Applying)</u> Build a model or diorama depicting some aspect of Ch. 7. On a notecard, write a brief explanation of your scene.</p>	<p><u>Critique (Evaluating)</u> Write an editorial for the <i>Selma Times</i> expressing your views on the day. Be sure to say whose perspective you are expressing.</p>



BLOOM'S TAXONOMY

Students choose activities from the Tic-Tac-Toe board that total 10 points.

- Make remembering and understanding activities worth 2 points
- Make applying and analyzing activities worth 5 points.
- Make evaluating and creating activities worth 8 points.



EXTENSION MENU POINT VALUE GRID – LIVING THINGS

<p><u>2 Points</u> List 5 living plant species. List 5 living animal species.</p>	<p><u>2 Points</u> Label the parts of a plant and illustrate the things it needs to survive.</p>	<p><u>2 Points</u> Illustrate an insect. and list 3 characteristics of an insect.</p>	<p><u>2 Points</u> Write a riddle about an amphibian and one about an arachnid.</p>
<p><u>4 Points</u> Explain why a spider is not an insect.</p>	<p><u>4 Points</u> Compare and contrast two plants using a venn diagram.</p>	<p><u>4 Points</u> Collage pictures of living things using magazines.</p>	<p><u>4 Points</u> Write a poem about your favorite living species.</p>
<p><u>6 Points</u> Select a living organism. Illustrate its life cycle using a graphic organizer.</p>	<p><u>6 Points</u> Make a flip book illustrating the steps taken from turning a tree into paper.</p>	<p><u>6 Points</u> Assume the identity of a living organism. Create journal entries describing your life.</p>	<p><u>8 Points</u> Interview a wildlife specialist at a state park. Present your questions and answers in a novel way.</p>
<p><u>8 Points</u> Diagram the levels of the rainforest. Write how your life would change if you lived in the canopy of the rainforest.</p>	<p><u>8 Points</u> Create a diorama illustrating a natural habitat. Include animals found in that habitat.</p>	<p><u>10 Points</u> Research an endangered species and design a how to plan to help populate the species.</p>	<p><u>12 Points</u> Develop a 10 minute lesson on a living organism of your choice.</p>



BUILD YOUR OWN CHOICE BOARD OR LEARNING MENU

1. <http://byrdseed.com/differentiator/#>
2. <http://byrdseed.com/respondo/>
3. <http://daretodifferentiate.wikispaces.com/Choice+Boards>
4. <http://dilangley.wikispaces.com/file/view/CONT+RACTS+elem+09.pdf>
5. Choose a content topic.
6. Create a choice board of activities, projects, or performances with your diverse student learners in mind.

