Differentiation with Choice Boards and Menus



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Objectives

 By the end of the session the Educator will be able to design a choice board or menu activity that is differentiated by product, interest, or readiness



Procedures

- We will explore together some ideas for differentiated instruction that provide students with choices, structured parameters to work within, and engaging activities.
- After a presentation and discussion we will move into a design phase



What is Differentiation? ſ

What do we already know?

recognize students varying background knowledge, readiness, language, preferences in learning, interests, and to react responsively.

a process to approach teaching and learning for students of differing abilities in the same class.

maximize each student's growth and individual success by meeting each student where he or she is, and assisting in the learning process.

Differentiated Instruction

is not... a recipe or formula a new idea in education incompatible with some subject areas or with standards

ONE SIZE DOES NOT FIT ALL

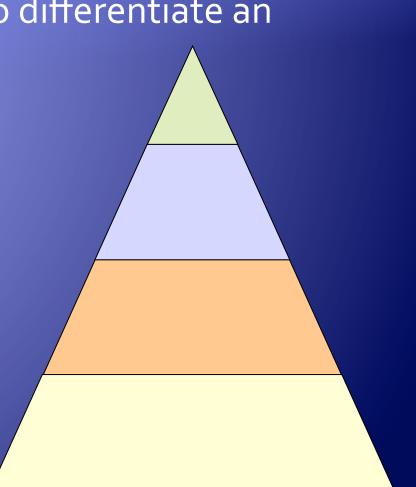
"Differentiation is making sure that the right students get the right learning tasks at the right time."

Assessment as Learning: Using Classroom Assessment to Maximize Student Learning Lorna M. Earl Corwin Press, Inc. – 2003 – pp. 86-87

Differentiate It

There are about six ways to differentiate an activity:

- Process
- Product
- Content
- Readiness
- Interest
- Learning Modality



Differentiate It

- Process: How you teach the content and/or how students experience it. Read a story vs listen to a story on tape
- Product: What you expect students to produce.
 Paragraph, Speech, Graphic Organizer
- Content: Different skills or CPI's

Differentiate It

- <u>Readiness</u>: Everyone works on same skill but the complexity and level of support differs
- Interest: Students choose from various options
- Learning Modality: Auditory, Visual, Hands-on

Learning Menus

Empowering students through CHOICE while ensuring adherence to important LEARNING GOALS

What are 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.

KINDS of MENUS

- <u>MENU</u>: Main Dishes, Side Dishes, and Desserts (for younger learners).
- <u>AGENDA</u>: Imperatives, Negotiables, and Options (for older learners).
- <u>THINK TAC TOE</u>: Complete a row, column or diagonal line of activities.

All three options can be differentiated according to interest, learning profile, or readiness (see enclosed examples).

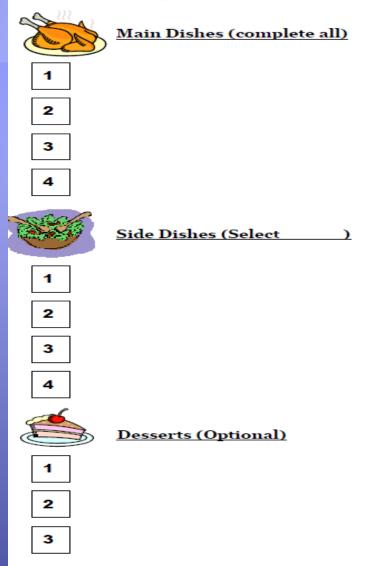
MENU PLANNER



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_		IUI.	

Due: _

All items in the main dish and the specified number of side dishes must be complete by the due date. You may select among the side dishes and you may decide to do some of the desserts items, as well.



MENU CONTRACT

"Probability"

Due: _____

All items in the main dish and the specified number of side dishes must be complete by the due date. You may select among the side dishes and you may decide to do some of the desserts items, as well.

<u>Main Dishes (complete all)</u>

1

2

- Complete the "meteorology simulation" on p. 88-89 of your textbook.
- Create a list of 10 pairs of events. 5 pairs should contain events that are *dependent*; 5 pairs should contain events that are *independent*. Explain each classification.
- 3

Complete the "frequency table" assignment on p. 506-507 of your textbook.

4

Examine the attached list of functions and determine which functions represent probability distributions.

Side Dishes (Select 2)



Work with a partner to analyze the game of "Primarily Odd." See your teacher for game cubes and further instructions.



3

Design a "game spinner" that has this probability distribution: P(red) = 0.1; P(green) = 0.2; P(blue) = 0.3; P(yellow) = 0.4.

Suppose a dart lands on a dartboard made up of four concentric circles. For the center of the board (the "bull's eye"), r=1.5; the remaining rings have widths of 1.5. Use your understanding of area and probability to determine the probability of 1) hitting a "bull's eye" and 2) landing in the outermost ring.

Desserts (Select 1)



Figure the probability of "Murphy's Law" and make a case for whether or not it should indeed be a "law."

2

Use a frequency table to chart the colors that your classmates wear for a week. Then, use probability to predict how many students will wear a certain color on a given day.



Science Agenda on Chemical Problems in the Environment

IMPERATIVES (You *must* do each of these...)

- 1. Select a chemical problem in the environment and
 - Define and describe the difficulties is presents
 - Be sure to discuss why, where, and to whom/what

Your choices are:

- Global warming/Greenhouse effect
- Ozone depletion
- Acid Rain
- Air Pollution
- Water Pollution (including thermal pollution and land/ground pollution)
- 2. Complete a map showing where the problem exists, what/who is affected by it, and the degree of impact
- 3. Develop a talking paper that describes present and future solutions, as well as your recommendations.

NEGOTIABLES (You must do at least one of these...)

- 1. Determine the approximate costs of the problem of one badly affected region and develop a graphic that shows total costs and what makes the costs (for example: Health costs, clean-up costs, lost revenues from land, etc.)
- 2. Develop a timeline of the evolution of the problem over the last 100 years, including significant dates, and factors that contributed to the change. Take the timeline into the future based on your current understanding of trends associated with the problem.

OPTIONS (You may do one or more of these...)

- 1. Create a Gary Larson-type cartoon or an editorial cartoon that makes a commentary on the problem.
- 2. Prepare a fictionalized account, but based on scientific fact, of a person who lives in a badly affected area. Your goal is to put a human face on the problem.
- 3. Develop a 60-second public service announcement (taped) to raise audience awareness of the problem and introduce positive actions citizens might take to improve the prognosis for the future.

Menu Subject: Music

Main Dish (complete all)

- Participate in a small group discussion about the origins of music. Chart your findings.
- Use a graphic organizer to compare and contrast music to another form of artistic expression.

Side Dish (choose two)

- 1. Create a timeline of music history.
- 2. Use body language to show reactions to different types of music.
- Design a musical review game. Create the game board, questions and rules for the game.
- Role-play important events from musical history. Write a script and video tape the production.

Dessert (optional and can only be completed after the other 2 courses)

- 1. Design a brochure to invite people to a historical music production.
- Analyze how the history of music affects lives today. Create a Power Point to depict your findings.

THINK TACTOE FROM DARETODIFFERENTIATE



Adapted from Fulfilling the Promise of the Differentiated Classroom, Carol Ann Tomlinson, ASCD 2003

 As with related strategies, it is important that no matter which choices students make, they must grapple with the key ideas and use the keys skills central to the topic or area of study.

 In other words, whichever choices the student makes, he/she should be addressing the same KUDs as the others

Knowledge	Comprehension	Application
Analysis	Synthesis	Evaluation
Comprehension or Evaluation	Application or Evaluation	Knowledge or Analysis

Adapted from Fulfilling the Promise of the Differentiated Classroom, Carol Ann Tomlinson, ASCD 2003

 Think-Tac-Toe plays off the familiar childhood game. It is a simple way to give students alternative ways of exploring and expressing key ideas and using key skills. Typically, the Think-Tac-Toe grid has nine cells in it like a Tic-Tac-Toe game. The number of rows and cells can, of course, be adjusted.

Knowledge	Comprehension	Application
list, define, tell, describe,	summarize, describe,	apply, demonstrate, calculate,
identify, show, label, collect,	interpret, contrast, predict,	complete, illustrate, show,
examine, quote, name,	associate, distinguish,	solve, examine, modify, relate,
who, when, where	estimate, discuss, extend	change, classify, experiment,
Analysis analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer	Synthesis combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite	Evaluation assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare
Comprehension or	Application or	Knowledge or
Evaluation	Evaluation	Analysis

Example Tic-tac-toe board for reviewing a math unit:

Write clear directions for performing the math computation skills from this unit	Solve two of the five challenge problems	Create a math rap or rhyme that will help someone remember a concept from this unit
Create three word problems from information learned in this unit	Student Choice Activity (with teacher approval)	Define the unit's vocabulary words with sketches or drawings
Complete the review problems in the text book	Develop a game using skills learned in this unit	Identify four ways the concepts in this unit are used in the real world

Learning Contract----Think Tac Toe Ancient Civilizations —

GEOGRAPHY		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.
MPORTANT 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.

Novel Think Tac-Toe

Directions: Select and complete one activity from each horizontal row to help you and others think about your novel. Remember to make your work thoughtful, original, rich with detail, and accurate.

Draw/paint and write a greeting card that invites us into the scenery and mood of an important part of the book. Be sure the verse helps us understand what is important in the scene and why.Make a model or a map of a key place in your life, and an important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the characters'.Make 2 timelines. The first should illustrate and describe a least 6-8 shifts in settings in the book. The second should explain and illustrate how the mood changes with the change in setting.Using books of proverbs and/on quotations, find at least 6-8 that you feel reflect what's important about the novel's theme. Find at least 6-8 that do the same for your life. Display them and explain your choices.Interview a key character from the book. Use a <u>Parade</u> magazine for material. Be sure the interview is thorough.Find several songs you think reflect an important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these songs express the book's meaning.	Create a pair of collages that	Write a bio-poem about yourself and	Write a recipe or set of directions for
	compares you and a character in the	another about a main character in the	how you would solve a problem and
	book. Compare and contrast physical	book so your readers see how you	another for how a main character in
	and personality traits. Label your	and the character are alike and	the book would solve a problem.
	collages so viewers understand your	different. Be sure to include the most	Your list should help us know you and
	thinking.	important traits in each poem.	the character.
quotations, find at least 6-8 that you feel reflect what's important about the novel's theme. Find at least 6-8 that do the same for your life. Displaybook to find out what lessons he/she thinks we should learn from events in the book. Use a Parade magazine for material. Be sure the interview isan important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these	that invites us into the scenery and mood of an important part of the book. Be sure the verse helps us understand what is important in the	place in your life, and an important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the	illustrate and describe a least 6-8 shifts in settings in the book. The second should explain and illustrate how the mood changes with the
	quotations, find at least 6-8 that you	book to find out what lessons he/she	an important message from the book.
	feel reflect what's important about the	thinks we should learn from events in	Prepare an audio collage. Write an
	novel's theme. Find at least 6-8 that	the book. Use a <u>Parade</u> magazine	exhibit card that helps your listener
	do the same for your life. Display	for material. Be sure the interview is	understand how you think these

 Novel Litle:

 Activities Selected:

 Student:

Novel Think Tac-Toe

Directions: Select and complete one activity from each horizontal row to help you and others think about your novel. Remember to make your work thoughtful, original, rich with detail, and accurate.

Write a bio-poem about yourself and another about a main character in the book so your readers see how you and the character are alike and different. Be sure to include the m most important traits in each poem.	A character in the book is being written up in the paper 20 years after the novel ends. Write the piece. Where has life taken him/ her? Why? Now, do the same for yourself 20 years from now. Make sure both pieces are interesting feature articles.	You're a "profiler." Write and illustrate a full and useful profile of an interesting character from the book with emphasis on personality traits and mode of operating. While you're at it, profile yourself, too.	
Research a town/place you feel is equivalent to the one in which the novel is set. Use maps, sketches, population and other demographic data to help you make comparisons and contrasts.	Make a model or a map of a key place in your life, and an important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the characters'.	The time and place in which people find themselves and when events happen shape those people and events in important ways. Find a way to convincingly prove that idea using this book.	
Find out about famous people in history or current events whose experiences and lives reflect the essential themes of this novel. Show us what you've learned.	Create a multi-media presentation that fully explores a key theme from the novel. Use at least 3 media (for example, painting, music, poetry, photography, drama, sculpture, calligraphy, etc.) in your exploration.	Find several songs you think reflect an important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these songs express the book's meaning.	
Novel Title: Activities Selected: Student:			

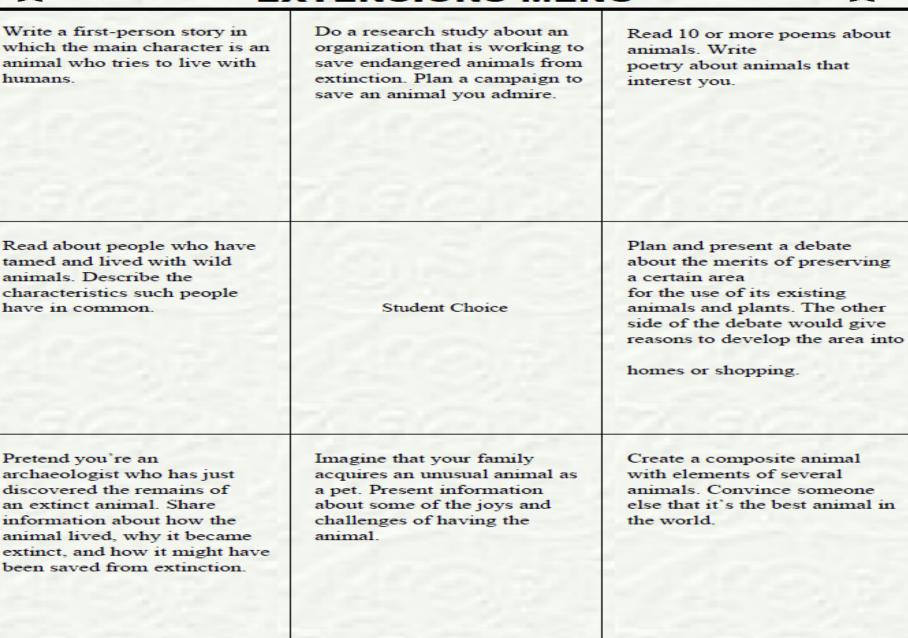
Think Tac Toe The Pythagorean Theorem

<u>Directions</u>: 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.

ANIMAL STORY

EXTENSIONS MENU



From Susan Winebrenner's Teaching Gifted Kids in the Regular Classroom. (2001). Minneapolis, MN: Free Spirit Publishing Directions: Chose activities in a tic-tac-toe design. When you have completed the activities in a row—horizontally, vertically, or diagonally—or in the 4 corners, you made decide to be finished. Or you may decide to keep going and complete more activities. Star the activities you plan to complete. Color in the box when you finish the activity.

[
Collect	Teach	Draw	Judge
			2
Facts or ideas which	A lesson about your	A diagram, map or	Two different
are important to you.	topic to our class.	picture of your	viewpoints about
(Knowledge)	Include as least one	topic.	an issue. Explain
	visual aid.	(Application)	your decision.
	(Synthesis)		(Evaluation)
Photograph	Demonstrate	Graph	Create
Videotape, or film	Something to show	Some part of your	An original poem,
part of your	what you have	study to show how	dance, picture,
presentation.	learned.	many or how few.	song, or story.
(Synthesis)	(Application)	(Analysis)	(Synthesis)
Dramatize	Survey	Forecast	Build
Something to show	Others to learn their	How your topic	A model or
what you have	opinions about some	will change in the	diorama to
learned.	fact, idea, or feature	next 10 years.	illustrate what you
(Synthesis)	of your study.	(Synthesis)	have learned.
	(Analysis)		(Application)
Create	Memorize	Write	Compare
	And regite a guate or	An editorial for the	Two things from
An original game using the facts you	And recite a quote or a short list of facts	student newspaper	your study. Look
have learned.	about your topic.	or draw an editorial	for ways they are
(Synthesis)	(Knowledge)	cartoon.	alike and different.
(Synthesis)	(Kilowieuge)	(Evaluation)	(Analysis)
		(L'valuation)	(That you)

Variation on the Theme: A Planet "Show & Tell"

(Each student must pick one square from each horizontal row and use the two together)

Create One	Use the computer to make a drawing that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Paint a picture that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Construct a model that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Create a book or puppet show that shows how the rotation and revolution of the Earth works.
ck a Way to Explain	Make labels for the sun, Earth, day, night, orbit to attach to or use with your creation. Be ready to explain orally.	Write sentences* that identity and explain each part of your drawing or model and how each part works.	Write a story that explains the Earth's rotation, revolution, day and night, and seasons.	Write a poem that explains the Earth's rotation, revolution, day and night and seasons.

This differentiated review/synthesis task is based on Va. SOLS for science:

Δ

1.6 The student will investigate & understand the basic relationships between the Earth and sun, Including *the sun is the source of heat & light *night & day are caused by the rotation of the Earth. 1.7 The student will investigate and understand the relationship of seasonal change (light and temperature) to the activities & life processes of plants and animals.

Based on Unit by Bette Wood, Charlottesville, Virginia City Schools.

THINK-TAC-TOE

NAME:

Directions: Choose activities in the tic-tac-toe board. You need to connect three in row, across, down or diagonal

_

MAIN IDEA	INFERENCE	SEQUENCE
MAINIDEA	INFERENCE	SEQUEINCE
CHARACTER TRAITS	TEXT TO WORLD	PLOT ELEMENTS
CHARACTER TRAITS	TEXT TO WORLD	PEOT ELEMENTS
	TEXT TO SELF	TEXT TO TEXT
TEXT EVIDENCE		
1		
1		

Making Inferences	Infer the theme of the novel. Draw a picture that represents that theme. Write a caption for your picture to explain the theme.	View the novel's photograph slideshow. Based on the photographs, infer the theme of the novel. Write a paragraph that explains the theme of the novel and support it with information from the photographs.	Select ten words from the novel that you are unfamiliar with. Infer the word meanings and create a miniature dictionary.
Main Idea	 Create a literature license plate in which you use 8 characters (letters, numbers, or symbols) to convey the main idea of scene from the book. 	Create a shape poem that uses words to convey the main idea. The shape of your poem should also connect to the main idea.	Create a memory game based on the main idea, events, and characters.
Making Connections	Find several songs that you think reflect an important message from the book. Write an exhibit card that helps you listen or understand how you think these songs express the book's meaning.	Find out about famous people in history or current events whose experiences and lives reflect the essential themes in this novel.	Research a town or place you feel is equivalent to the one in which the novel is set. Use maps, sketches, population, and other demographic data to help you make comparisons and contrast. Create a matrix that shows what you've found.
Point of View	Write a diary entry about the main character from the point of view of another character.	Write a bio-poem about yourself and another about a main character in the book so your readers can see how you and the character are alike and different. Be sure to include the most important information in each poem.	Draw a picture of the main conflict from 2 opposing points of view. Write an explanation of your drawings.

Name:_____

Behavior Points: (2 pts)	Total Points:
E-Lab (3 pts)	Reflections (2 pts)
Go to the following website. Complete 4 problems. Record the process on paper. http://www.harcourtschool.com/elab/act_7_8.html	Answer the math reflections on page 69 of your text.
Teacher Student	Teacher Student
T-Shirt Plan (3 pts)	Skill Practice (2 pts)
Become a competitor to Mighty Tee and No-Shrink Tee from problem 2.3. Create a table, graph, and equation to explain your pricing policy.	Complete a skill practice worksheet.
Teacher Student	Teacher Student
mathtv.com (2 pts)	Website Activity (2 pts)
Go to mathty.com. Select algebra, then linear equations in 1 variable. Choose a lesson, watch, then summarize in writing.	Go to Mrs. I's webpage. Look for choice board website game #3. Click on link and complete 3 full rounds. Record the <u>steps</u> of each round on paper.
Teacher Student	Teacher Student
	E-Lab (3 pts) Go to the following website. Complete 4 problems. Record the process on paper. http://www.harcourtschool.com/elab/act_7_8.html Teacher Student T-Shirt Plan (3 pts) Become a competitor to Mighty Tee and No-Shrink Tee from problem 2.3. Create a table, graph, and equation to explain your pricing policy. Teacher Student Mathtw.com (2 pts) Go to mathtw.com. Select algebra, then linear equations in 1 variable. Choose a lesson, watch, then summarize in writing.

1-3-5 Activity

1-3-5 Menu Activity

DIRECTIONS: Choose from the activities below. The activities must equal at least 12 points or more. Circle each activity you complete. Add your points at the bottom.

1 Point Each

3 Points Each

5 Points Each

Add your points here:

Ellis Island and US Immigration

1-3-5 Menu Activity

DIRECTIONS: Choose from the activities below. The activities must equal at least 12 points or more. Circle each activity you complete. Add your points at the bottom.

You are to draw on your knowledge from this unit's previous lessons and research to complete the activities below.

1 Point Each

- Write a newspaper article on reasons why people would want to immigrate to the US in 1892.
- Create a picture collage that depicts what the "United States" means to a person immigrating here.
- You are a Polish immigrant in the United States. Write an editorial on your reaction to the current influx of Italian immigrants arriving in the US through Ellis Island.
- Write a two page paper on the <u>Gentleman's Agreement</u>. You must answer what, who, when, where, and why.

<u>3 Points Each</u>

- Write a one page speech to the interviewer at Ellis Island on why you would risk the voyage to immigrate to the United States.
- Interview someone in your family. As them how your ancestors immigrated to the United States. Based on your research, create a Family Tree showing where members were born and when they immigrated to the US. Summarize your Family Tree project in a 2-3 page paper.

5 Points Each

- On our classroom website at echalk.com is a list of immigrants who entered the US through Ellis Island. Click on the hyper link of the person you wish to use, this person becomes your character. The hyperlink will open to a pdf file which includes background information on your character. Using this information, right your character's autobiography (5-8 pgs.)
- Conduct internet research on the different immigration patterns in the United States. Pick one group affected by immigration, i.e. Chinese, Mexican, etc., and write journal entries on your immigration experience, starting with your decision to immigrate to the US and ending with your arrival. Minimum of 5 journal entries.

Comprehensive Closure

- Tell yourself one specific way you will use choice boards and/or menus in your class AND what type/s you think you will start with.
- Post your answer on the poster-paper
- Share your specific idea with a neighbor and be ready to design your own-

Your Turn to Explore

- Develop at least one differentiated choice board or menu to use with an upcoming unit.
- Work with a grade level partner (if possible) but each develop your own. This way you will have potentially two menus and Think-Tac activities to draw from.

