

Differentiated Teaching for Learner Profile

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"The goals of learning profile differentiation are to help individual learners understand modes of learning that work best for them, and to offer those options so that each learner finds a good learning fit in the classroom."
- Tomlinson (2001)

Learning Profile Assumptions

- It is possible to identify a student's learning preferences for learning environment
- It is possible to **use** and to **modify** a variety of instructional practices to match student preferences
- Students will learn better when using preferences in which they're successful
- Students will be better learners when they can **expand** their preferences
- Students who match their teacher's learning style (or can more easily accommodate it?) are probably the most successful
- Students who refuse to (or can't?) adapt their learning style to accommodate different styles may sometimes end up being labeled as LD
- All teachers should use a variety of methods

STERNBERG: Triarchic Theory of Intelligence: 3 Facets That Make Up Intelligence

Analytical Intelligence

- Measured by analogies and puzzles; "School-smarts"
I Like...(adapted from Teaching for Successful Intelligence, 2003)
 - Analyzing characters when I'm reading or listening to a story
 - Comparing and contrasting points of view
 - Criticizing my own and others' work
 - Thinking clearly and analytically
 - Evaluating my and others' points of view
 - Appealing to logic
 - Judging my and others' behavior
 - Explaining difficult problems to others
 - Solving Logical problems
 - Making inferences and deriving conclusions
 - Sorting and classifying
 - Thinking about things

Creative Intelligence

- Insight, synthesis, and the ability to react to novel stimuli and situations=
I Like...
 - Designing new things
 - Coming up with ideas
 - Using my imagination
 - Playing make-believe and pretend games
 - Thinking of alternative solutions
 - Noticing things people usually tend to ignore
 - Thinking in pictures and images
 - Inventing (new recipes, words, games)
 - Supposing that things were different
 - Thinking about what would have happened if certain aspects of the world were different
 - Composing (new songs, melodies)
 - Acting and role playing

Practical Intelligence

- Ability to grasp, understand, and solve real-life problems in everyday life
- How you relate to the external world
- "Street smarts"

I Like...

- Taking things apart and fixing them
- Learning through hands on activities
- Making and maintaining friends
- Understanding and respecting others
- Putting into practice things I learned
- Resolving conflicts
- Advising my friends on their problems
- Convincing someone to do something
- Learning by interacting with others
- Applying my knowledge
- Working and being with others
- Adapting to new situations

LANGUAGE ARTS: Evaluating Plot

Standard: Students will evaluate the quality of plot based on clear criteria

Experts suggest that an effective plot is : believable, has events that follow a logical and energizing sequence, has compelling characters and has a convincing resolution.

Analytical: Select a story that you believe DOES have an effective plot based on these three criteria as well as others you state. Provide specific support from the story for your positions OR Select a story you believe has an effective plot in spite of the fact that it does NOT meet these criteria. Establish the criteria you believe made the story's plot effective. Make a case, using specific illustrations from the story, that YOUR criteria describe an effective plot

Practical: A local TV station wants to air teen-produced digital videos based on well-known works.

Select and storyboard your choice for a video. Be sure your storyboards AT LEAST have a clear and believable plot structure, a logical sequence of events, compelling characters and a convincing resolution. Note other criteria on which you feel the plot's effectiveness should also be judged. Make a case that your choice is a winner based on these and the other criteria you state.

Creative: Propose an original story you feel has a clear and believable plot structure, a logical sequence of events, compelling characters, and a convincing resolution. You may write it, storyboard it, or make a flow chart of it. Find a way to demonstrate that your story achieves these criteria as well as any others you mote as important.

SOCIAL STUDIES: IMMIGRATION

Students will know: Meanings of the metaphors "melting pot, " mosaic," and "salad bowl" as they relate to immigration in America.

Students will understand: A Metaphor is figure of speech using a word or phrase and applying it to a different idea or thing to represent a similarity between the two.

Students will be able to: Connect their understanding of the metaphors to immigration in America through

- *explanation of change in immigrant assimilation as related to the existing metaphors,*
- *creation of new metaphors to characterize past immigration and present immigration,*
- *or application of the metaphors to evaluation of assimilation in the local community.*

Analytic: Analyze how and why the US population has shifted from a melting pot to a salad bowl or mosaic as it has assimilated new immigrants.

Practical: Think of the population of Charlottesville and Albemarle County. Is it better for

Charlottesville to assimilate new people to this area like a melting pot or a salad bowl? Defend your position.

Creative: Create a different pair of metaphors to characterize how immigrants assimilated in the past and how they assimilate today. Write an explanation for each or create a visual to depict them.

US Government

This extension is designed with Robert Sternberg's Theory of Triarchic Intelligences in mind. Students choose ONE:

- (Analytic) Provide students with access to learning centers that contain art with a patriotic theme, books or folders of patriotic song lyrics, poetry, etc. Encourage students to browse the materials at each center. They should then choose an example from one or more centers and compare the works in a brief essay addressing how these works communicate American ideals and/or exemplify the unit principle: *Enduring ideals are the basis of Americans' political identity and culture.*
- (Creative) Ask students to compose or design their own artistic work expressing what they perceive American ideals to be. They must compose an exhibit card to go along with the work.
- (Practical) Create and set up a roadmap for your own new or restyled system of American government. What does the government look like? How does this system of government reflect American ideals? Your personal ideals?

ALGEBRA: Compare and contrast the various equations for constructing a line

Analytical: What are the important mathematical distinctions between the equations? Give an example of a problem in which each equation would be most useful.

Practical: In what situation would each type of equation be most useful? Give a real-life example for the best use of each equation.

Creative: Put the lines on trial – the prosecutor tries to get rid of a certain equation; the defense must defend its

usefulness

BIOLOGY

KNOW: Cell parts and functions

UNDERSTAND: A cell is a system with interrelated parts

DO: Analyze the interrelations of cell parts/functions and present understandings in clear, useful, interesting, and fresh way

Analytical

Use a cause/effect chain or some other format you develop to show how each part of a cell affects other parts as well as the whole. Use labels, directional markers, and other symbols as appropriate to ensure that someone who is pretty clueless about how a cell works will be enlightened after they study your work.

Practical

Look around you in your world or the broader world for systems that could serve as analogies for the cell. Select your best analogy ("best" meaning most clearly matched, most explanatory or enlightening). Devise a way to make the analogy clear and visible to an audience of your peers, ensuring that they will develop clearer and richer insights about how a cell works by sharing in your work. Be sure to emphasize both the individual functions of cell parts and the interrelationships among the parts.

Creative

Use unlikely stuff to depict the structure and function of the cell, with emphasis on interrelationships among each of the parts. You should select your materials carefully to reveal something important about the cell, its parts, and/or their interrelationships. Your "ahas" should trigger ours.

DIVISION

- Analytical - Your friend needs a really clear step by step explanation of what division is and how it works. Please create one!
- Practical - Show how someone at school, home, or in our town uses division to solve real needs in his or her life. Help us see how and why this person uses division.
- Creative - Find a brand new way to show what division is all about and how it works

FRENCH CULTURE:

Creative Task: You work for the local county museum in Your Town. The museum director is a friend of the family and knows of your interest in francophone cultures. She asks you and your friends to design a temporary museum exhibit for an upcoming show designed to interest local middle and high school students in other cultures. She particularly wants students to come away from the exhibit with an understanding of both the similarities and differences between typical leisure time activities of young people from our local region and at least two French-speaking cultures. Once you complete your research, design a museum quality display about each country that clearly points out similarities and differences between these cultures. Attach a brief written explanation, in English, to be posted alongside the exhibit that delineates your overall findings about similarities and differences between the cultures and encourages viewers to investigate the cultures further.

Practical Task: You are a student intern at a travel agency in Your Town. The boss has asked you and your friends to research at least two French-speaking cultures and compare them to local U.S. culture with respect to the activities young people typically engage in. Your results will be presented to a group of local teachers who are considering working with your agency to set up a summer study program in a variety of francophone cultures. These teachers wish to know what their students might expect in terms of leisure time activities in the various countries, so that they can make informed decisions about which countries to target. Once you complete your research, design an informational brochure, poster, or series of PowerPoint slides about each country that clearly points out similarities and differences between these cultures. Attach a brief editorial for publication in the group's monthly newsletter in which you summarize your overall findings about similarities and differences between the cultures and make recommendations for future study

Analytic Task: You work as a student consultant for a Think Tank in Your Town. Your work group has been assigned to a committee on creating cultural links amongst young people of a variety of cultural and regional backgrounds. Because your group members are studying French, you are given the task of analyzing at least two French-speaking cultures and comparing them to local U.S. culture with respect to the activities young people typically engage in. Your work will be used as a pilot for a larger comparative analysis to be completed by the larger committee. After completing your research, design a flow chart, Venn diagram, or other graphic organizer that clearly depicts the results of your analysis. This organizer may be done on the computer, if you wish. Attach a brief outline in English, based on your overall findings, which delineates your recommendations to the committee.

PHYSICAL EDUCATION: Standard: Safe & healthy environment

Goals: Communication, cooperation, teamwork, other behaviors (to enhance & lead); Have fun participating in physical activity (Know benefits)

Practical

- Perform this task in a way which takes the
 - Least physical effort
 - Moderate physical effort
 - Highest level of physical effort
 - Relies on each member equally
 - Relies on each member's special strengths
 - Least/most equipment; expense, etc.
- Discuss: When might you need to use each approach? What are the pluses and minuses of each? How can this exercise help you in "real" life? What kinds of safety concerns do you think your teacher had to think about? How did he or she minimize the risks involved?

Analytical

- Analyze the task you have ahead of you. What will you need to succeed? What obstacles are you likely to encounter? What is the best way to go about this task so that everyone participates/ everyone exploits his or her strengths/ you meet the lesson goals/etc.
- Complete task
- Critique your performance – focus on team improvement rather than individual!

- Compare this activity to other team endeavors. Was this task a good way to learn about teamwork? Why or why not? How safe was this activity? How could you (or your teacher) increase/decrease the risks involved?

Creative

- Complete the task to the best of your ability
- Change the rules and try it again; repeat (make sure the task stays safe!)
- Design another such task that encourages cooperation and communication in a different way – perhaps nonverbal communication? What if you didn't have the equipment you were given? How could you accomplish the task? What equipment is necessary? Nice to have? Unnecessary? How could you ensure everyone's safety and cooperation, yet complete the task in less time, less space, etc.?

GARDNER MULTIPLE INTELLIGENCES: 8 Kinds of Smart

- Everyone has all the intelligences
- The intelligences are not mutually exclusive – they act in consort
- MI theory should not **exclude** individuals but allow each person to contribute to society through their own particular strengths

Verbal / Linguistic: Ability to use words and language

- *Skills:* listening, speaking, writing, story telling, explaining, teaching, using humor, understanding the syntax and meaning of words, remembering information, convincing someone of their point of view, analyzing language usage.

Logical / Mathematical : Ability to use reason, logic and numbers

- *Skills:* problem solving, classifying and categorizing information, working with abstract concepts to figure out the relationship of each to the other, handling long chains of reason to make local progressions, doing controlled experiments, questioning and wondering about natural events, performing complex mathematical calculations, working with geometric shapes

Visual / Spatial: Ability to perceive the visual

- *Skills:* puzzle building, reading, writing, understanding charts and graphs, a good sense of direction, sketching, painting, creating visual metaphors and analogies, manipulating images, constructing, fixing, designing practical objects, interpreting visual images.

Bodily / Kinesthetic: Ability to control body movements and handle objects skillfully

- *Skills:* dancing, physical co-ordination, sports, hands on experimentation, using body language, crafts, acting, miming, using their hands to create or build, expressing emotions through the body

Musical / Rhythmic: Ability to produce and appreciate music

- *Skills:* singing, whistling, playing musical instruments, recognizing tonal patterns, composing music, remembering melodies, understanding the structure and rhythm of music

Interpersonal : Ability to relate and understand others

- *Skills:* seeing things from other perspectives, listening, using empathy, understanding other people's moods and feelings, counseling, co-operating with groups, noticing people's moods, motivations and intentions, communicating both verbally and non-verbally, building trust, peaceful conflict resolution, establishing positive relations with other people.

Intrapersonal: Ability to self-reflect and be aware of one's inner state of being

- *Skills:* Recognizing their own strengths and weaknesses, reflecting and analyzing themselves, awareness of their inner feelings, desires and dreams, evaluating their thinking patterns, reasoning with themselves, understanding their role in relationship to others

Naturalist: Ability to observe, understand, and organize patterns in the natural environment

- *Skills:* recognizing and classifying plants and animals, observing, collecting, organizing, sorting, distinguishing between variants, experimenting in nature, naming natural phenomena, noticing changes in environment, gardening, caring for pets and natural animal life

FRENCH CLASS: In preparation for writing a composition about a friend, jot down a number of words that you might use in describing this person.

Logical/Mathematical: Use one of the following charts to help you:

Nouns	Verbs	Adjectives	Adverbs

Appearance	Personality	Likes	Dislikes

Visual / Spatial: Close your eyes and picture your friend. Pay attention to every detail you can see. Use your imagination to really see him or her, both inside and outside.

Interpersonal: With a partner, discuss a mutual friend in French. Brainstorm all the ways you might describe him or her in the target language.

PE

V-L	M-L	V-S	M-R
Listen to or read directions for drill; perform the drill; write or record a brief reflection of how you did on skill and how you could improve	Figure out the parts that make up whole skill; how can improving the parts affect the whole?	Draw a diagram that shows how to do the skill; visualize yourself performing the skill, then do it; use your observation skills to help your partner improve	Pass to music – when music speed changes, change the speed of the drill; try to pass in a rhythmic pattern; count out loud: 1,2,3,Kick! For example; does this help or hinder you? Why?
B-K	Inter	Intra	Nat
Vary the amount of movement different parts of your body makes in each of the drills; how does this affect your performance on each skill?	Talk with your partner to teach, encourage & debrief each drill; act as a coach while your partner does the drill	Practice the drill, reflect on how it went and how it feels while you do each drill; How can you improve? What will you try next?	How might you classify the skills in all of the drills? What is similar and what is different from drill to drill? How can this knowledge help you improve?

LITERATURE

Verbal / Linguistic: The author uses verbs to capture the movement and current of energy of the plot, characters, and setting. Write a poem that focuses on an event in the story —perhaps where many things are happening—and pay very close attention to your verbs! Revise them so that they become the focus of every image. Refuse to use a single linking or helping verb.

Logical / Mathematical: Make a map of the main character's journey throughout the book – wither their physical journey or their emotional journey.

Intrapersonal: Write a letter to yourself about your own beliefs about the theme of the book. Are they similar to the author's? The main character's? How are they different?

Body / Kinesthetic: In pairs, create a reader's theater presentation of the book. Share with various classes.

Musical / Rhythmic: Find a piece of music that would be a great background piece to the reading of this book. (Be sure it doesn't have any lyrics that would interfere with the words). Perform it for someone.

Interpersonal: Working in pairs or small groups, choose one thing mentioned in the book and create a report with as much information you can learn about it. Write a pamphlet or poster and present your findings to the class.

PAINTING – choosing a subject

V/L	L/M	V/S	M/R
Prepare an oral explanation to give a classmate of why your subject is important enough to paint.	Prepare a flow chart that illustrates how you go about choosing a subject or setting for your painting.		Make a soundscape (no words) that captures the same kind of feeling you wish your painting to capture.
Inter	B/K	Intra	Naturalist
Create a skit or pantomime that illustrates the right and the wrong way to go about choosing a subject for your work.	Find a quiet space and write me a letter telling how you go about deciding on a subject for your painting. Let me inside your head!		Go outside to find inspiration for your painting. Sketch patterns, textures, moods, etc. in nature that you wish to introduce into your work. How did this experience influence the final product?

VISUAL – AUDITORY – (READING) - KINESTHETIC

Visual – Learn Through Seeing

- Need to see the teacher's body language and facial expression to fully understand the content of a lesson
- Tend to prefer sitting at the front of the classroom to avoid visual obstructions
- May think in pictures and learn best from visual displays including
- Often prefer to take detailed notes to absorb the information.

Auditory – Learn Through Listening

- Learn best through verbal lectures, discussions, talking things through and listening to what others have to say
- Interpret the underlying meanings of speech through listening to tone of voice, pitch, speed and other nuances
- Written information may have little meaning until it is heard
- Often benefit from reading text aloud and using a tape recorder.

Kinesthetic – Learn Through Moving, Doing, and Touching

- Prefer hands-on approach
- Enjoy active exploration of the physical world around them
- Find it hard to sit still for long periods
- May become distracted by their need for activity and exploration

PE: How to serve a volleyball

- Visual: See it demonstrated; watch a video; visualize themselves making a perfect serve
- Auditory: Hear it described; hear an expert describe the perfect serve; describe what they are doing out loud
- Kinesthetic: Try to figure it out themselves; Go through motions as they hear it described; mirror what they see an expert do

HEALTH: The Dangers of Tobacco

All Products Must...

- Use key facts from class and research
- Make a complete case

- Provide defensible evidence for the case
- Weigh varied viewpoints
- Be appropriate/useful for the target audience
- Give evidence of revision & quality in content & presentation
- Be thought-provoking rather than predictable

VISUAL

- Story boards for TV "ad" using few/no words to make the point OR
- Comic book parody with smoking super heroes/heroines

ORAL

- Radio-spot (public information with music timed, lead-in) OR
- Nightline (T. Koppel, C. Roberts with teen who smokes, tobacco farmer, tobacco CEO, person with emphysema)

WRITTEN

- Brochure for a pediatrician's office – patients 9-16 as target audience – with graphics OR
- Research and write an editorial that compares the relative costs and benefits of tobacco to NC – submit for publication

KINESTHETIC

- Pantomime a struggle of "will" regarding smoking – including a decision with rationale OR
- Act out a skit on pressures to smoke and reasons not to smoke

MATH (By Nanci Smith)

Visual Learners: Determine the slope of lines using the worksheet provided. After you complete the worksheet, summarize how to find the slope of a line using a graph. Hypothesize what lines look like with positive, negative, and zero slope and draw sketches of what these would look like.

Tactile Learners: Given several equations of lines in the form $y=mx+b$, use graphing calculators to graph the lines and then sketch the graphs onto paper. Discuss how the "slant" of the lines **changes** from equation to equation. Hypothesize where the slope is found in the equation of a line and how that number affects the slant of the line.

Aural Learners: From linear graphs with clearly labeled axes, work with the teacher to find the slopes of lines. Discuss what **changes** the slopes represent. For example, a slope of miles/gallons is the gas mileage of a car (mpg). Suggest other types of **changes** that can be represented by a similar type of graph. What kinds of **changes** do the slopes represent?

When the students have completed their tasks, use Jigsaw to regroup the students into groups of 3 so that each new group includes a student from the previous groupings. Thus, each group should include a visual, tactile, and aural learner. Have the students "teach" their group mates what they discovered through their particular tasks.

INDUSTRIAL REVOLUTION

- 1) *Visual Learners*: Study the series of pictures depicting the Industrial Revolution. Each group member should choose one picture that he or she finds particularly interesting and write a brief description for an auction guide book that explains the historical importance of this image. Compile your images and descriptions.
- 2) *Tactile Learners*: Participate in a simulation on the Industrial Revolution. Write or record a journal entry expressing your reaction to the experience and why the assembly line was such an important change in the way factories were set up.
- 3) *Aural Learners*: Listen to recorded memoirs and interviews of significant individuals from the time of the Industrial Revolution. What common interests did these individuals share? What problems did they run into and how did they solve them?

ENTRY POINTS OF HOWARD GARDNER

In order to make students' early experiences with a topic more engaging and motivating, students are offered a variety of ways to "enter into" the study.

Narrational entry point – read or tell a story or narrative

Logical-quantitative entry point - provide data, use deductive reasoning, examine numbers, statistics musical rhythm, logic, narrative plot structure, cause and effect relationships

Foundational entry point - Big questions about life, death and our place in the world, philosophy, meaning

Aesthetic entry point – emphasize sensory and/or surface features, activate aesthetic sensitivities

Experimental entry point – a hands-on-approach, dealing directly with materials (physically or virtually), simulations, personal explanations

ART: Cathedrals of the Renaissance

- Read and write about Hunchback of Notre Dame,
- Find out how cathedrals were engineered
- What symbols represented the beliefs held inside cathedrals – animals, gargoyles, flowers
- How do space, light, acoustics, colors, relate to cathedrals?
- What is YOUR cathedral? How do we each measure ourselves vs. wholeness, bigness, spiritualism

ART: Interpretation

- What story does this art work depict OR What story does it make you think of or make up? Explain.
- How much do you think this work of art is worth? Why do you say so? Is it more or less valuable than other works by this artist OR other artists of the time?
- What is a work of art? Is this art work considered a work of art? Why do you say so?
- How are the forms in the art work organized or balanced? What do you like about the art work? Dislike?
- Draw the shapes you see in this work of art. Rearrange them in at least 2 ways. How does this affect the impact of the art work?

RIVERS (Gardner)

- Read stories about the river; Write about a visit to the river; Consider how the river influences your own and your families' life events.
- In the stream table activity, generate and test hypotheses about how rivers are formed and take shape given various conditions of water and sand; Build scale models of river scenes
- Consider how rivers form, how they are shaped, and how they shape the landscape and people's lives.
- Create sketches and murals of the river; Study artworks where rivers are depicted; Read or write poetry about rivers
- Visit the river and observe it first-hand; Build river models.

ANCIENT EGYPT, Erin Miller, Charlottesville

- Read a story about life in Ancient Egypt. Compare and contrast how the Ancient Egyptians lived with how you live today. Write a story about how your life might be different if you were able to time travel back to Ancient Egypt and live there for one day!
- Examine questions such as: How many people lived in Ancient Egypt? How many of them were royalty, craftsmen, servants? What did people used to eat? How old were people when they died? How many children did people have? How many pyramids are there in

Egypt? Create a product (such as a travel brochure for Ancient Egypt, or your own idea) to present this information using graphs or pictures.

- Pick an Egyptian God and find out what was special about that God. What kind of pictures did people use when they drew him? What was he the God of? Draw or write a script for an advertisement that might be used to advertise this God. Be sure to tell why he was important, how he was supposed to help people, and what pictures they used to represent him.
- Look at some of the artwork from an Egyptian tomb. How does the way that they draw people differ from the way that we draw people? What so you think they thought a beautiful person looked like? What did beautiful people wear? Draw a person today that you think is beautiful. Then draw your own version of a beautiful Ancient Egyptian. Use labels, a Venn Diagram, or a list to show how our ideas of beauty are the same or different from the ideas of the Ancient Egyptians about beauty.
- Look at the box of ancient "artifacts" (a replica of a water clock, powder to represent eye shadow, hieroglyphic writing, etc.) Make a list of everything you can tell about the person who used these artifacts. Then choose some artifacts that tell about your life, and explain why they tell something about you. Choose two artifacts of yours, and two artifacts from the Ancient Egypt box and find a way to show how the artifacts can tell us about the person they belonged to.

EARTH SCIENCE: Natural Resources, Adapted from Emily Price, Charlottesville

- The student will investigate and understand the differences between renewable and nonrenewable resources.

KNOW the definition of natural resources

UNDERSTAND that natural resources are important to our survival

BE ABLE TO explain/show how their life is affected by natural resources

Narrational: In the library, find at least 4 newspaper articles about natural resources in the United States. At least 1 of the 4 must be about Virginia. All 4 should be from the past 12 months. Show what you have learned with either an essay (2-3 pages) or a PowerPoint presentation (at least 10 slides with animations and graphics). In this product, you must (1) summarize the articles, (2) write a fictional or journalistic short story about natural resources that connects the information from the articles, and (3) explain how your own life is connected to natural resources.

Logical - Quantitative: Using data from an almanac or other trustworthy source, create or reproduce at least 4 graphs using Excel to show each of the following (you may need more graphs to best illustrate this data):

- Natural resources found in Virginia
- Quantity of natural resources used in the U.S., with breakdown of types
- Percentages of energy acquired from different sources in the U.S. and Virginia
- The depletion of petroleum (oil) worldwide during the 20th Century

Fully label the graphs and organize them on a poster to display in the classroom. On the poster, also include 2 paragraphs explaining the importance of the graphs and what these graphs mean in your life. (...how what you have depicted on the graphs relates to/ affects your own life here in Virginia.)

Foundational - Think about the following 2 questions:

- Should people protect the Earth and natural resources or do people have unlimited rights to use what is available?
- How do we decide on an appropriate level of usage versus conservation?

Choose 1 of the options below to answer these questions. Be sure you include basic data on the official views of the United States government regarding these questions, explain your thoughts and reasoning, and describe how these questions are important in your own life.

- Design a 3 minute public service announcement that addresses these questions and conveys your point of view.
- Write an editorial for the local newspaper that addresses these questions and conveys your point of view.

Aesthetic - Consider the following questions:

- What are the positive and/or negative aesthetic consequences of acquiring and using natural resources?
- How is the aesthetic quality of the environment impacted by the use /abuse of natural resources?

Find 3 contrasting examples from art, media, cinema, etc that supports your answers to these questions. Include an exhibit card that explains how these examples relate to the questions and to your own thoughts about them OR create an original piece of artwork or music that addressed the aesthetic aspects of acquiring and/or using natural resources. Display this product for the class along with an exhibit card that includes a description of the message that your art/music conveys and why that message is important in your life.

Experiential - You are a voting citizen in Albemarle County, Virginia. Tonight is the referendum vote to approve or deny the construction of a coal-powered electric plant. The plant would be located in northwestern Albemarle County. Think about the pros and cons of the suggested power plant. Make a bulleted list of important points on BOTH sides of the issue. Choose a side of the debate and prepare a 3-minute persuasive speech to give to the class.

HABITATS (Linda Weaver, Charlottesville)

The students have been given a specific animal that was left on their front porch to care for.

Throughout the unit they will research to create an environment for their specific animal.

Once students have received their specific type of animal, the following entry point assignment will be given. The students can choose which of the following activities they wish to do. Initial research will be necessary to help them get started. Although much of the following activities can be a combination of fact and fiction, the actual description of the animal must be factual.

- Including its description and facts about the habitat of your animal, write a story or poem addressed to you, that was attached to the package of your animal, explaining how he ended up your from porch. Be specific as to the journey he took to get here and why he needs your help to survive. You can describe any dangers or adventures he encountered along the way and any help from the animal community or our human community. (Use specific descriptive facts about your animal to create this fictional story or poem)
Using its physical description and facts about its environment, make up a game that can be used to guess your specific animal or type of animal. This should be a generic game that anyone in the class could use by entering information about their own animal. Use your particular animal to test your game. The instructions to your game should include a title, either a time limit or question limit, how to score points, and what determines a winner.
- Using resources provided by your teacher, find a way that is interesting to you to describe the features of your animal. Use as the theme of your portrayal a specific physical feature (color, size, speed, etc) of your animal that is important for survival in his environment. Include his origin (country and regions within that country), what his home, family and life was like before he arrived on your doorstep. You can use a fictional approach but the description and facts of his life and environment must be factual.
- Create a brochure, song, or video introducing your animal to the class. Use as your theme an actual feature of this animal that portrays physical beauty, agile or graceful movements, or melodic sounds. Include an actual physical description, where he comes from (facts about his environment), and how you got him should be included in your introduction. You can use a fictional approach but his description and environment must be factual.

- Through a form of your choice relay experiences or encounters you or someone you know has had with your animal. Include details of adventure and survival on your part or the animal's part. If you haven't had a true experience, you can make up a fictional experience but base the experience on facts about your specific animal. Include in your portrayal a detailed physical description and environmental attributes about your animal.

MUSICAL PERFORMANCE OR COMPOSITION

- Read excerpts from the composer's biography. How does the composer feel about music? About composing? About his or her own work?
- Study the composer's use of rhythm or chord progression in the provided excerpts. What generalizations can you make, if any?
- What makes this composer's music unique? Why has this music remained well-known?
- Listen to excerpts of the composer's work. What common elements do you notice? When you listen to this composer's work, how does it make you feel? What does it make you think of?
- Listen to excerpts of the composer's most famous works. Sing or play the melodies from these excerpts on an instrument of your choice. As you play or sing, try to imitate the expressiveness in the excerpts.

BASKETBALL

- Listen to the interview with Michael Jordan. What does he like best about playing basketball? OR Read about the early beginnings of the game of basketball. How has the game of basketball changed over time?
- Read the rules of basketball. Do one of the following:
 - Draw a diagram that helps you explain the set up of the basketball court
 - Make a graphic organizer that clearly explains how points are earned in basketball
 - Draw a diagram a coach might use to explain how to carry out a particular play
- Examine a basketball and a basketball net under a microscope. Describe the features of each in detail. Why do you think these items are designed the way they are?
- Watch the clip of a professional basketball game and then watch the clip of a ballet performance. What similarities do you notice between the two clips?
- Watch a demonstration of how to shoot a lay-up. Try to imitate what you see.

FOODS

- Look at the food magazines provided. Choose a story about preparing or cooking a dish. Be ready to tell the class what you learned.
- Study the dessert recipes in the recipe box. Figure out how to adapt the recipe for twice as many servings. Now pretend you only have half the amount of flour the original recipe calls for. How will you adapt the recipe so it still turns out?
- What makes a meal "satisfying?" Come up with a list of dos and don'ts. Why should we care?
- Using the materials provided, set the dinner table in an attractive yet functional manner. Be ready to explain your decisions.
- Experiment with various ways of mixing ingredients together. (Fold, whip, stir, etc.) Be ready to demonstrate these different ways to the class.

OTHER LEARNING PROFILE THEORIES

Gregorc: 4 Categories of Learners

Abstract Random: Emotional, sensitive, subjective, sociable, understanding, caring, empathetic, imaginative, flighty, colorful, media-oriented, thematic, interpretive, flexible, adaptable, compassionate, perceptive, imaginative, idealistic, sentimental, spontaneous, flexible

Abstract random learners work best when they

- can work and share with others.
- have assignments requiring personalization.
- get personal attention and emotional support.
- have social activities to balance work.
- can answer, "How can we interpret this?"
- have freedom from control by others.
- have a personally satisfying environment.
- use personal, individual, or artistic expression.
- have open communication with others.
- have a noncompetitive atmosphere.

Concrete Random: Inquisitive, curious, investigative, intuitive, daring, different, unusual, creative, divergent, original, inventive, problem-solver, challenger, experimenter, independent, change oriented, quick, intuitive, realistic, innovative, adventurous

Concrete random learners work best when they

- can try new approaches and solve problems. are self-directed.
- are competitive.
- create their own answers.
- ask, "How many different ways can I ...?"
- use trial-and-error approaches.
- do brainstorming and open-ended activities.
- produce real, but imaginative, products.
- have options to prove their way works.
- have hands-on experiences.

Abstract Sequential: Rational, logical, conceptual, theoretical, analytical, evaluative, argumentative, intelligent, a thinker, a fountain of knowledgeable, scholarly, structured in thought, little professor, academic, resistant to change, objective, thorough, structured, logical, deliberate, systematic

Abstract sequential learners work best when they

- have reading references and expert sources.
- are sure of themselves.
- follow traditional procedures.
- have time to learn material thoroughly.
- can work alone.
- are respected for intellectual ability.
- ask, "Why is this?"
- write analytical essays.
- rely on lecture notes and written materials.
- do library research.

Concrete Sequential: Orderly, organized, to-the-point, thorough, precise, direct, structured, predictable, perfection-oriented, industrious, factual, detailed, task-oriented, exact, concrete, physically-based, practical, steadfast, reliable, sure-footed, hardworking, consistent, stable, accurate

Concrete sequential learners work best when they

- have an orderly quiet environment.
- know the accepted way of doing things.
- have exact directions and examples.
- can be consistent and efficient.
- face limited change in predictable situations.
- are given approval for specific work done.
- can apply ideas in a practical hands-on way.
- can answer, "How does it work?"
- are able to trust that others will follow through
- have guided practice with an organized person.

Bernice McCarthy: 4-MAT: 4 Types of Learners: Why / What / How / What if

Type 1: Innovative Learners: Explain the Why

Give them reasons to learn; make the concept relevant to them and their lives

- Personal experience with what I learn
- Experience personal feelings in what I learn
- Learn about things I care about and value
- Express my own beliefs, feelings and values
- Understand how what I learn effects me

Type 2: Analytic Learners: Present the What

Give them the facts which will deepen conceptual understanding

- Get new and accurate information
- Deal in facts and right answers
- Know what the experts think
- Formulates theories, models and plans
- Have things exact and accurate

Type 3: Common Sense Learners Demonstrate the How

Let them try it; give hands on activities which deal with the concept

- Do things
- Find out that matter of life
- Test theories in real life
- Make things useful

Type 4: Dynamic Learners: Ask What if?

Apply it to real life; let them teach it to others; allow students the opportunity for self discovery

- Connect things together
- Do things that matter of life
- Teach other people what I know
- Turn people on and take some risks
- Make what is already working work better

Myers-Briggs Type Indicator (MBTI): 4 Preferences Resulting in 16 Learning Styles or Types

Energizing – How a Person is Energized

- Extrovert - Preference for drawing energy from outside world of people, activities, things
- Introvert - Preference for drawing energy from one's internal world of ideas, emotions, impressions

Teaching Extraverts

- Group Work
- TAPPS
- Teacher poses question and provides quiet time for students.
- Teacher designates the explainer and listener within each dyad.
- Explainers explain ideas to listeners. Listeners can (1) ask questions of clarification, (2) disagree, or (3) provide hints when explainers becomes lost

- Teacher critiques some explainers' answers and provides closure

Teaching Introverts

- Integrate and connect subject matter
- Teach in "chunks" of interconnected facts
- Help students develop their own frameworks for learning
- Flowcharts, concept maps, compare/contrast tables

Attending – What a Person Pays Attention To

- Sensing - Preference for using the senses to notice what is real
- Intuition - Preference for using the imagination to envision what is possible

Teaching Sensing Students

- Organized, linear, structured lessons
- WMBK (What must be known)
- ATA (application-theory-application)
- Advance organizers

Teaching Intuitive Students

- Concept maps
- Compare/contrast tables
- TAT (Theory-application-theory)
- ATA (Application-theory-application)

Deciding – How a Person Decides

- Thinking - Preference for organizing and structuring information in a logical, objective way
- Feeling - Preference for organizing and structuring information in a personal, value-oriented way

Teaching Thinking Students

- Clear course and topic objectives
- Avoid the vague
- Be precise and action-oriented

Teaching Feeling Students

- Group work
- TAPPS

Living – Lifestyle a Person Prefers

- Judgment - Preference for living a planned, organized life
- Perception - Preference for living a spontaneous, flexible life

Teaching Judging Students

- Speedwriting
- Split page
- Color coding
- AOR (analyze-organize-respond)
- Reverse question
- Read the stem and mini-essay
- Encourage a second look
- Play Devil's Advocate

Teaching Perceptive Students

- Break assignments into sub-assignments with deadlines
- Provide audio comment