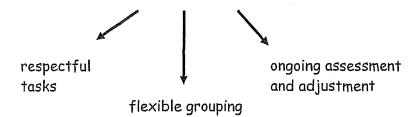


### A Concept Map for Differentiating Instruction

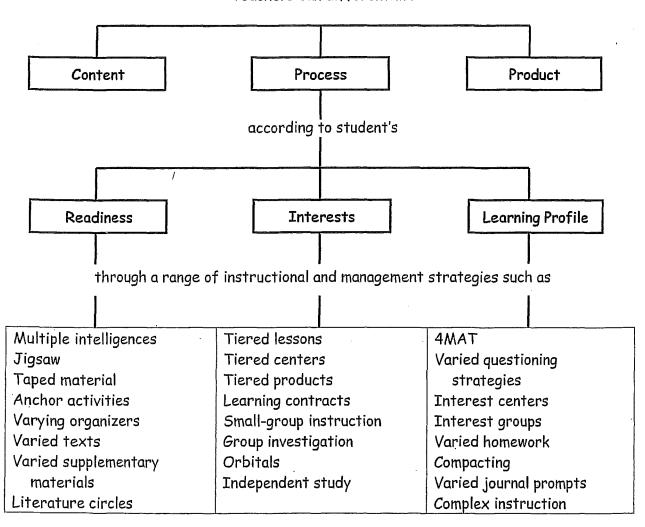
### Differentiation of Instruction

is a teacher's response to learner's needs

guided by general principles of differentiation, such as



#### Teachers can differentiate



## Principles of Differentiated Instruction by Ellen G. White

#### 1. Continual Progress

"Higher than the highest human thought can reach is God's ideal for His children. Godliness—godlikeness—is the goal to be reached. Before the student there is opened a path of continual progress. He has an object to achieve, a standard to attain, that includes everything good and pure and noble. He will advance as fast and as far as possible in every branch of true knowledge." —Ed 18

#### 2. Adapt to Student Needs

"The teacher should carefully study the disposition and character of his pupils, that he may adapt his teaching to their peculiar needs. He has a garden to tend, in which are plants differing widely in nature, form and development...Those to whom was committed the care of these plants left them to the mercy of circumstances, and now the difficulties of correct cultivation are increased tenfold." —CT 231-232

#### 3. Individual Development

"In all true teaching the personal element is essential. Christ in His teaching dealt with men individually...The same personal interest, the same attention to individual development, are needed in educational work today...The true educator, keeping in view what his pupils may become, will recognize the value of the material upon which he is working. He will take a personal interest in each pupil and will seek to develop all his powers." —Ed 231-232

#### 4. Mastery Learning

"Before taking up the higher branches of study, let them master the lower. This is too often neglected...A thorough knowledge of the essentials of education should be not only the condition of admission to a higher course, but the constant test for continuance and advancement." —Ed 234

#### 5. Grade Levels not Wise



"The system of grading is sometimes a hindrance to the pupil's real progress. Some pupils are slow at first, and the teacher of these youth needs to exercise great patience. But these pupils may after a short time learn so rapidly as to astonish him. Others may appear to be very brilliant, but time may show that they have blossomed too suddenly. The system of confining children rigidly to grades is not wise." —CT 177

### **Receiving Information**

### **Topic: Cars**

✓ Check the top 2 ways that you would like to learn about various kinds of cars.							
	Silently read a book on cars						
	Do a research poll on public's favorite kinds of car						
	Do a research project about a particular type of car and then learn from others about the car that they chose (Jigsaw Learning)						
<del></del>	Invite a car designer to come and speak to me about their job						
	Look at pictures of different kinds of cars						
<del></del>	Read a car book with a partner and then create a mind map about the reading with the partner						
	Go on a field trip to a car manufacturing plant to look at how an assembly line creates the car						
	Research information about cars via internet						
	Watch a video or movie on the topic						
<del></del> _	Go to a car dealership for a field trip						
	Listen to teacher lecture about different types of cars						
	Create a new car (paper drawing, then model)						
	Test drive						

### **Visual Learners**

#### Characteristics:

- Likes to look at books and pictures (would rather read than be read to)
- Loves to look at orderly things demands neat surroundings
- Can find what others have lost remembers where things have been seen
- Sees details
- Can't get directions orally needs things written down
- Likes to work puzzles
- May have speech problems
- May watch teacher's face intently
- Needs overall view and purpose



#### **Ways To Process Information:**

Record, Locate, Calculate, Simplify, Imagine, Prove, Prepare, Assess, Rewrite, Draw a picture of, Make a web or mindmap, Jot down, or Draw or use a graphic organizer.

#### **Teaching Strategies For Them:**

- On worksheets put a heavy line around items to help pupil to attend to one item at a time or like items
- Allow student to point if necessary. Let students touch words while reading
- Have student have a clear table top
- Have many routines
- Give one step at a time
- Write down directions on chalkboard
- Matching games (words & definitions; prefixes & roots, etc.)
- Charts, graphs, maps color
- Highlighters help keep track of information
- Use mirror to see mouth make sounds of words
- Allow child to work with rulers and number lines
- Use flip-charts marked with colors instead of chalkboards. Then, hang the charts with key information around the room as you present them, and refer back to them
- Mindmap information
- Stand still while presenting chunks of information; move around in between chunks
- Distribute copies of key phrases or outlines of the lesson, leaving space for notes
- Use icons to represent key concepts
- Give them overviews of information first before giving the details

### **Auditory Learners**

#### Characteristics

- Easily distracted
- Speaks in rhythmic patterns
- Learns by listening, moves lips/says words while reading
- Dialogues both internally and externally
- The chatter-box
- Tells jokes and tries to be funny
- Can win spelling bees if taught "Say-Spell-Say Method"
- Good story tellers
- Could have poor handwriting or letter reversals
- Knows the words to several songs
- Poor perception of time and space



#### **Ways To Process Information:**

Say it to yourself or out loud, Listen to the tape, Discuss with a group or partner, Tape the response, Interview, Teach others, Explain, Debate, Create a question, or Express yourself.

#### **Teaching Strategies For Them:**

- Allow tape recordings of books and note-taking
- Allow them to repeat out loud what you say (whispering)
- Help them to talk themselves through difficult concepts
- Turn information into a song or rap
- Music in background during activities (not for all though)
- Use vocal variation (inflection, pace, volume) in your presentation
- Teach the way you test; if you present information in a specific order or format, test the information in the same way
- Use call-backs, having students repeat key concepts and directions back
- After each chunk of teaching, have students tell their neighbor one thing they learned
- Develop and encourage students to come up with mnemonic devices to help them remember key concepts
- ❖ Use music pieces as cues for routine activities (EX: circus music for cleanup)
- Decrease any noise distractions
- Use few, precise words while giving directions
- If you repeat, use the same words
- Speak directly to this child
- Have him say punctuation marks as he reads to develop awareness of their functions
- Play lots of rhyming and blending games
- Pair student with a visual learner

### **Kinesthetic/Tactile Learner**

#### Characteristics:

- Movers that is how they learn
- Want to touch and feel everything
- Rub hands along wall while in lines
- Puts hands on door frames and touches desks while walking
- Thumps people
- Often writes everything might doodle often
- Can take gadgets apart and put them back together
- Has many "things" to play with
- Enjoys doing crafts or other things with hands
- Is not clumsy good at sports
- May be the child making paper airplanes
- Stands close to people
- Points while reading
- Memorizes by walking and seeing
- Needs concrete objects as learning aids
- Explores new environments intensely

#### **Ways To Process Information:**

Label and categorize, Show, Draw, Diagram, Simulate or perform a skit, Construct, Sculpt, Create a product, Experiment, Use manipulatives to explain, or Point to.

#### **Teaching Strategies For Them:**

- Skits, role-playing, plays with content embedded
- Memorize information by linking a movement to it
- Show them HOW to do things
- Allow them to sit on floor and work
- Use props as you teach to spark curiosity and add emphasis to key concepts
- Create simulations of concepts to allow students to experience them
- When working with students individually, give parallel assistance by sitting next to them rather than in front of or behind them
- Demonstrate concepts while allowing students to perform step by step
- Movement should be a part of every lesson figure out ways to get them moving
- Provide a timer for when work/study time is over.
- Needs a quiet, calm activity after physical activity (EX: Read aloud after P.E. or recess)
- Addition and subtraction can be taught on the monkey bars
- Let them clap or tap syllables or numbers
- Create human graphs
- Use manipulatives (tiles, magnetic letters, coins, etc.)
- Use sandpaper letters, felt letters, etc.
- Attach verbal labels on objects in classroom

## Visual – Auditory – Kinesthetic Assessment (VAK)

	Visual Characteristics	Often	Sometimes	Seldom
1.	Are you neat and orderly?			
2.	Do you speak quickly?			
3.	Are you organized and plan ahead?			
4.	Are you a good speller and visualize the word your head?			
5.	Do you remember better what you see versus what you hear?			
6.	When you are trying to remember something, do you visualize it?			
7.	Do you have trouble remembering verbal instructions?			
8.	Do you ask people to repeat themselves?			
9.	Would you rather read than be read to?			
10.	Do you doodle during phone conversations, classroom lecture time, or during commercials?			
11.	Do you watch the speaker's mouth while he/she is speaking?			
12.	Do you get the words to songs wrong?			
13.	Do you know what to say but have a hard time retrieving the right words?			
14.	Do you often look to see what others are doing in order to learn how to do something?			
15.	Do you take a lot of classroom notes?			
16.	Do you like to look at orderly areas?			
17.	Do you like to complete puzzles?			
	Subtotals	<b>x.2</b>	<u></u> <b>X1</b>	Ö.K.
	TOTALS (add all 3 subtotals (oftens) + (Sometimes) +	_	<del>-</del>	

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## Visual – Auditory – Kinesthetic Assessment (VAK)

	Auditory Characteristics	Often	Sometimes	Seldom				
1.	Do you like to talk to yourself while working?			·				
2.	Are you easily distracted by noise?							
3.	Do you move your lips while reading?							
4.	Do you enjoy reading aloud and listening to books being read aloud?							
5.	Can you rehearse lines from people from a movie recently seen with similar tone, pitch and timbre?							
6.	Do you find writing difficult but are better at telling?							
7.	Do you speak in rhythmic patterns?							
8.	Do you think you're an eloquent speaker?							
9.	Do you like music more than art?							
10.	Do you learn by listening and recall what was discussed rather than seen?							
11.	Is it challenging to take notes while the speaker talks?							
12.	Are you talkative, love discussion and go into lengthy descriptions?		·					
13.	Can you spell out loud better than in writing?							
14.	Do you use your finger to help you read or follow along?							
15.	Do you struggle with drawing unless you have something to copy from?							
16.	Do you struggle with maps, charts, and graphs?							
17.	Do you remember words to songs very easily?							
	Subtotals	, x2	x1	<u> </u>				
	TOTALS (add them all up) (oftens) + (Sometimes) + 0 (Seldoms) =							

## Visual – Auditory – Kinesthetic Assessment (VAK)

	Kinesthetic Characteristics	Often	Sometimes	Seldom			
1.	Do you speak quickly and use your hands (gesture)?						
2.	Do you touch people to get their attention?						
3.	Do you stand close when talking to someone?						
4.	Is it hard to stand/sit still? Do you need to move a lot?						
5.	Do you learn by manipulating items and doing experiments?						
6.	Do you memorize by walking and seeing?						
7.	Do you use a finger as a pointer while reading?						
8.	Do you take things apart and put them together just for fun?						
9.	Do you have difficulty concentrating while sitting?						
10.	Do you collect "things" (Pack-Rat)?		·	·			
11.	Do you tap your pen, fingers or foot while listening?						
12.	Do you spend time playing sports and other physical activities?						
13.	Are you always touching something (pen, pencil, folding paper, etc.)?						
14.	Do you shake or move your legs?						
15.	Do you rock in your chair?						
16.	Do you consider yourself a little hyper?						
17.	Do you interrupt people?						
	Subtotals.	<u>.</u> x2	<b>x1</b>	<b>x</b> .0.			
and the	TOTALS (add them all up) (oftens) + (Sometimes) + 0 (Seldoms) =						

Verbal/Linguistic	ii Visual	Logical/ Mathematical	Musical	Interpersonal	Intrapersonal	Bodily/ Kinesthetic	Naturalist
		my			Constant of the second		
Reporting	Painting	Demonstrate	Perform	Relate content to personal relationships	Relate content to feelings	Dance or Choreograph	Classify/Categorize
Writing essays	Cartooning	Solve	Play	Use a volunteer	Relate content to personal lives	Perform	Demonstrate
Reciting	Observing	Make analogies	Sing	Include audience participation	Reflect	Pantomime	Observe
Listing	Drawing	Outline	Create	Create	Analyze	Manipulate	Relate content to nature
Telling	lilustrating	Sequence/order	Show	Conduct	Conduct	Use movement	Collect
Listening	Diagramming	Conduct	Use sound	Plan	Express	Build	Conduct
Labeling	Depicting	Design	Write	Teach	Create	Create	Create
Joking	Showing	Graph	Teach	Solve	Report	Teach	Grow
Journaling	Design	Program	Express	Explore	Study	Act	Report

### **Multiple Intelligences Project Ideas**

Verbal/Linguistic	Visual	Logical/ Mathematical	Musical	interpersonal	Intrapersonal	Bodily/ Kinesthetic	Naturalist
Create an audio tape	Design a logo	Analyze/ Interpret data	Express meaning through music	Conduct a survey	Construct a portfolio	Act in a play	Care for an animal
Give a persuasive speech	Design a brochure/catalog	Conduct an experiment	Give an instrumental performance	Create a talk show or game show	Create a self-portrait	Conduct a lab experiment	Collect specimens
Investigate an author	Make a diagram/ flowchart	Teach a thinking skill	Teach a music skill	Do a cooperative project	Keep a journal/ log/diary	Create a performance	Conduct a nature experiment
Share a poem or a poet	Make a sculpture	Create and outline	Write a jingle	Explore sides of an issue	Study feelings and moods	Build a model	Create a classification system
Write a play or script	Create a cartoon/ comic book	Create a sequence of steps	Write an anthem	Interview someone	Teach a relaxation skill	Perform a pantomime	Create an observation log
Write an ad/slogan campaign	Create a mural	Create a timeline	Write a song or rap	Perform a service	Write an narrative	Role play an event	Make plans for and grow a garden
Teach a skill	Create a diorama	Simulate a court case	Lip sync a song	Plan a public event or party	Write an autobiography	Create body sculptures	Make a nature video
Have a debate	Build a model	Present statistics	Create sound effects	Present a social issues	Report on a self-smart famous person	Choreograph a dance	Report on a natural phenomenon
Write a letter	Film a video	Graph data	Create a radio show	Tutor a classmate	Make plans and set goals	Give a sports report	Share a crisis

### **An MI Inventory For Adults** Spatial Intelligence I often see clear visual images when I close my eyes. I'm sensitive to color. I frequently use a camera or camcorder to record what I see around me. I enjoy doing jigsaw puzzles, mazes, and other visual puzzles. I have vivid dreams at night. I can generally find my way around unfamiliar territory. I like to draw or doodle. Geometry was easier for me than algebra in school. I can comfortably imagine how something might appear if it were looked down on from directly above a bird's-eye view. I prefer looking at reading material that is heavily illustrated. Other Spatial Abilities: **Bodily-Kinesthetic Intelligence** I engage in at least one sport or physical activity on a regular basis. I find it difficult to sit still for long periods of time. I like working with my hands at concrete activities such as sewing, weaving, carving, carpentry, or model building. My best ideas often come to me when I'm out for a long walk or a jog, or when I'm engaging in some other kind of physical activity. \_ I often like to spend my free time outdoors. I frequently use hand gestures or other forms of body language when conversing with I need to touch things in order to learn more about them. I enjoy daredevil amusement rides or similar thrilling physical experiences. I would describe myself as well coordinated. I need to practice a new skill rather than simply reading about it or seeing a video that describes it. Other Bodily-Kinesthetic Abilities:

From Multiple Intelligences in the Classroom – 2<sup>nd</sup> Edition, by Thomas Armstrong. Figure 2.1 (pp 13-16). Alexandria, VA: ASCD, 2000. Used with Permission. The Association for Supervision and Curriculum Development is a worldwide community of educators advocating sound policies and sharing best practices to achieve the success of each learner. To learn more,

Continued

### An MI Inventory For Adults Musical Intelligence I have a pleasant singing voice. \_\_\_\_ I can tell when a musical note is off-key. I frequently listen to music on radio, records, cassettes, or compact discs. I play a musical instrument. My life would be poorer if there were no music in it. I sometimes catch myself walking down the street with a television jingle or other tune running through my mind. I can easily keep time to a piece of music with a simple percussion instrument. I know the tunes to many different songs or musical pieces. If I hear a musical selection once or twice, I am usually able to sing it back fairly accurately. I often make tapping sounds or sing little melodies while working, studying, or learning something new. Other Musical Abilities: Interpersonal Intelligence I'm the sort of person that people come to for advice and counsel at work or in my neighborhood. I prefer group sports like badminton, volleyball, or softball to solo sports such as swimming and logging. \_\_ When I have a problem, I'm more likely to seek out another person for help than attempt to work it out on my own. I have at least three close friends. I favor social pastimes such as Monopoly or bridge over individual recreations such as video games and solitaire. I enjoy the challenge of teaching another person, or groups of people, what I know how to do. I consider myself a leader (or others have called me that). I feel comfortable in the midst of a crowd. I like to get involved in social activities connected with my work, church, or community. I would rather spend my evenings at a lively party then stay at home alone. Other Interpersonal Abilities: Continued

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### An MI Inventory For Adults Intrapersonal Intelligence I regularly spend time alone mediating, reflecting, or thinking about important life questions. I have attended counseling sessions or personal growth seminars to learn more about myself. I am able to respond to setbacks with resilience. I have a special hobby or interest that I keep pretty much to myself. I have some important goals for my life that I think about on a regular basis. I have a realistic view of my strengths and weaknesses (borne out by feedback from other sources). I would prefer to spend a weekend alone in a cabin in the woods rather than at a fancy resort with lots of people around. I consider myself to be strong-willed or independent-minded. I keep a personal diary or journal to record the events of my inner life. \_\_\_\_ I am self-employed or have at least thought seriously about starting my own business. Other Intrapersonal Abilities: Naturalist Intelligence I like to spend time backpacking, hiking, or just walking in nature. I belong to some kind of volunteer organization related to nature (e.g., Sierra Club), and I'm concerned about helping to save nature from further destruction. I thrive on having animals around the house. I'm involved in a hobby that involves nature in some way (e.g., bird-watching). I've enrolled in courses relating to nature at community centers or colleges (e.g., botany, zoology). I'm quite good at telling the difference between different kinds of trees, dogs, birds, or other types of fiora or fauna. I like to read books and magazines, or watch television shows or movies that feature nature in some way. When on vacation, I prefer to go off to a natural setting (park, campground, hiking trail) rather than to hotel/resort or city/cultural location. I love to visit zoos, aquariums, or other places where the natural world is studies. I have a garden and enjoy working regularly in it. Other Naturalist Abilities:

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visit ASCD at www.ascd.org.

agential real part

# A Student Interview To Identify Multiple Intelligences

Student:	Date:
Ask the student, "What do you like his answers, with 3 being the most young child, you might want to he	st positive (if you're working with a
"yes", a straight-lipped face for "se usually"). Then just skim to see w	•
Linguistic	Interpersonal
Do you like reading and writing?	Do you enjoy being with other people?
Do you like to be read to?	Do you like to help friends with their
Do you like to talk to people?	problems?
	Do you like to play games?
Logical/mathematical	
Do you enjoy working with numbers?	Intrapersonal
Do you enjoy finding patterns?	Do you prefer to work alone?
Do you like counting things?	Do you think you are a good problem solver?
Spatial	Do you enjoy writing in journals about your
Do you like drawing and painting?	feelings?
Do you like to build things?	
Do you like mazes?	Naturalist
	Do you have collections at home of things
Bodily/Kinesthetic	you've found outside?
Do you like to move and act things out?	Do you like to sort things and arrange
Do you like using manipulatives?	them?
Do you like sports or gymnastics?	When you go home, do you prefer to be outside?
Musical	
Do you like to dance?	
Do you like to sing?	
Do you enjoy listening to raps, rhymes, and	·
songs?	

Source: VanderWeide, Donna. (2008). Differentiated Math K-2. Peterborough, NH: Crystal Springs Books.

ELMAN, MARCHINES

# **Getting to Know You**

Your Name:	<del></del>		What do you want me to	call yo	ou?
1. Hobbies		2.	Favorite toys or games	3.	Favorite sports/activitie
	you like to do in are time?	5.	Favorite subjects in school	6.	Not-so-favorite subjects
	you want to be ou grow up?	8.	What do you like to collect?	9.	Favorite books
10. What topic do you want to learn about the most?  11. Tell me something unique about you (that not many know about).				ou (that not many people	
		know	about your learning?		
	uld you like for me to	o know	about your learning?		
2. What are	your strengths?		about your learning?		
2. What are 3. What are	your strengths? some growth oppor	tunitie			
2. What are 3. What are 4. What wou	your strengths? some growth oppor	tunitie his yea	es for you this school year? er? (skills and content)		
2. What are 3. What are 4. What wou 5. Do you ha	your strengths? some growth oppor	tunitie his yea conce	es for you this school year? er? (skills and content)	erence	2S:

## Here Is How I Like To Learn...

Name:		Date:	
	والمراجع والمراجع والمناطب والمراجع والمراع والمراجع والمراع والم والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع		

### Circle your favorite among the 2 choices

I would like to learn...

- 1. By myself **OR** in a small group
- 2. While listening to music **OR** while there is little noise in the room
- 3. By drawing a picture OR writing
- 4. By solving story problems **OR** adding or subtracting lists of numbers
- 5. Near a window OR away from a window
- 6. In the front of the room OR in the back of the room
- 7. In my desk **OR** on the carpet on the floor
- 8. By typing my words **OR** by writing my words
- 9. By being the leader of a group **OR** by being a part of a group
- 10. In the morning **OR** in the afternoon

## Here Is How I Like To Learn...

Rate the following school subjects based on your interest and/or your strength with a smiley face, neutral face, or unhappy face.

Interest (I like this topic. I'm curious about this subject. I would like to explore this topic in more depth in my spare time):

- ⊗ = I just do NOT have much interest in this subject
- = I am sometimes interested in this subject
- ☺ = I am thoroughly interested in this subject

### Strengths:

- ☼ = I am NOT very good at this subject
- = I am somewhat good at this subject
- © = I am very good at this subject

	Interest	Strength
Math		
Science		
Social Studies		
Reading		
Writing		
Spelling		
P.E.		
Music		
Art		
Computer Class		
Foreign		

## 3-2-1 PROCESSING

Write <u>three</u> ideas about Differentiated Instruction that you plan to use:

- $\blacklozenge$
- $\blacklozenge$
- **♦**

Write **two** new facts that you have learned about Differentiated Instruction:

- **♦**
- $\blacklozenge$

Write <u>one</u> question that you still have about Differentiated Instruction; or write a goal for implementation:

**♦**