LESSON/UNIT PLAN

Lesson Title:	Investigation Lesson	Date:	
	achia D	Mathematics	2
Name:		Subject:	Grade:

Rationale:

Learning Outcome(s) Essential-Expected-Enrichment: students will be able to add and subtract 1-10 in the hundreds place for a given number

Prerequisite Concepts, Vocabulary and Skills: 1,2,3 digit #'s

Materials and Resources:

Teacher	Students
We worked on #'s through 200, we will build on this to complete 201-400 chart.	1.Students will fill in the chart2. Those who finish early will complete problems on white board.

Lesson Activities:

Teacher and Second Adult Activities	Student Activities	Time
Introduction (Anticipatory Set or Lesson Hook) Provide multiple means of engagement and representation: *Students will be ably to add and subtract using <,> to compare #'s *students will be able to us 1,2,3 digit #'s.	Introduction (Anticipatory Set or Lesson Hook) Provide multiple means of engagement and representation: * Students need to continually reinforce the hundreds, tens and ones place values * Students may have problems seeing patterns of 200's chart.	
Body (Teaching Act, Strategies, and Guided Experience) Provide multiple means of action, expression, and representation: We worked on #'s through 200, we will build on this to complete201-400 chart.	Body (Teaching Act, Strategies, and Guided Experience) Provide multiple means of action, expression, and representation: 1.Students will fill in the chart 2. Those who finish early will complete problems on white board	
Closure - Provide multiple means of engagement and expression: * provide picture representations have students show and explain how they got the answer.	Closure - Provide multiple means of engagement and expression: * show notation for hundreds , tens ands ones	

Universal Design for Learning (UDL) and Differentiated Instruction (DI):

Organizational Strategies:

Behavioral Management Strategies: walk around and addd manipulative to keep students engaged

Assessment and Evaluation (Pre and Post):

Extensions:

Possible Barriers and Solutions: students may need to cover half of their chart to keep track and focus

Homework:

Rationale: Why are you teaching this particular lesson/unit (e.g. is it part of a complex skill? Is it an essential prereading skill in reading? Is it important that the students hear good literature?) The rationale should be a brief sentence or two and stated in words that can be easily understood by the children in the classroom.

Learning Outcomes (Instructional Objective(s)): What are the specific things students will be able to do as a result of this lesson/unit? (e.g. the students will be able to identify the main idea in the story. The student will be able to describe the main idea in a paragraph of four sentences). You should ensure that the instructional objectives are measured by your assessment and evaluation strategies. You may want to include the MA Learning Standard. Your outcome may be focused on knowledge, understanding and/or performance. You may also want to differentiate between the Essential, Expected and Enrichment Learning Outcomes (Targets).

Prerequisite Concepts and Skills: This section is used to state the concepts/skills needed to participate/reviewed/previewed.

Materials and Resources: List all materials and resources that you/students will need. (e.g. prepare a chart, set out manipulatives)

Lesson Activities

Introduction: <u>How</u> will you get students interested in the topic? How will you find out what they already know about the topic? Will you use an anticipatory set (*link to their experience*)? What preview ideas/content/concepts need to be addressed?

Body: What sequence of activities will the student experience? What will you do? How will they be organized (individual, groups, whole class)? What will they do? What will they do who finish early? How much time will each activity take? What about clean up?

Essential Questions:

How are you going to present your content so that it meets the needs of all students...is the information represented in different ways?

How are you going to provide multiple pathways for students to actually learn the material presented? Practice, or active mental/physical engagement, is required by students to make real learning happen.

How will students demonstrate what they have learned? Again, the creation of many paths is key.

Closure: How will you close the lesson? The closing should be linked to the learning outcomes.

Universal Design for Learning (UDL) and Differentiated Instruction (DI): Meeting the Variability of Students UDL includes: Multiple means of representation; Multiple means of expression; and, Multiple means of engagement. DI is the process of ensuring that a student's readiness level, interests, and preferred mode of learning are recognized. Teachers can differentiate instruction in four ways: content, process, product, and, learning environment based on the individual learner.

How will you accommodate for your diverse learners? Consider learning styles and multiple intelligences. What are the individual needs within this classroom and how will you accommodate them? What are the adaptations and modifications needed for students with Individual Education Plans (IEPs)?

Organizational Strategies: Carefully thought-out organizational management strategies facilitate proactive positive classroom management. For example, how will you: bring the class together at the start of the day/lesson?; utilize student helpers to facilitate the flow of lessons and the day in general?; distribute and collect materials?; separate the class into groups or levels? (In what situations should groups be assigned ahead of time?); coordinate different grade levels working on different assignments?

Behavior Management Strategies: Carefully thought-out behavior management strategies facilitate proactive positive classroom management. What strategies will be used?

Assessment and Evaluation: Do you require a pre-assessment? If so, can you review work samples or prior assessments? What is needed (knowledge/skills) to engage in the lesson based on pre-assessment? How will you accommodate for this? Did the students learn what you taught them? How will assess during the lesson? What essential questions will you use during guided/independent practice to check for understanding? The results of the assessment should be directly related to the learning outcomes. Your assessment will include a variety of tools depending on student need. How did you include a self-assessment for students to consider their engagement and learning? You may also want to differentiate between the Essential, Expected and Enrichment Learning Outcomes (Targets). How will you provide feedback to your students?

Extensions: How might this lesson link to previous and/or future lessons within the same curriculum area? How might knowledge, skills or attitudes from this lesson/unit be integrated/infused into lessons/units in other subject areas?

Possible Barriers and Solutions: Consider possible barriers (language, reading level, activity needs) of individual or groups of students. List and respond to how you will address these barriers. This will include any pre-teaching required to develop vocabulary, background knowledge and/or skills. It may also include preview to materials, images and lesson activities.

Homework: What differentiated homework should be provided that connects to this lesson/unit? What materials will they need?

Lesson Activities: The What and HOW: (Representation and Expression)

The Delivery MENU

Choose from the Reference Menus to help target the various learning options

Visual	Represe	entation
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- Video
- Demonstration
- A play/skit
- Role Play
- Drawing examples
- Highlighting
- Color coding
- Reading
- Graphics/charts/maps/comic
- Use visu/text journals
- Make a newspaper
- Use concept maps/graphic organizer
- Worksheet
- Text (poster, book, workbook, handout, digitized)
- Observing
- Creating mental images
- Video

Auditory Representation

- Instructional Lecture
- Discussion
- Music
- Singing
- Background music
- Quiet Space
- Think, pair, and share
- Sharing with a class
- Use word associations
- Mnemonic
- Read aloud
- Story Telling
- Make an audiobook
- Prepare a presentation
- Write/Create a sona
- Listening to text reading
- Oral Reading
- Oral Presentation
- Digital text with audio output

Kinesthetic Representation

- Experiments
- Model building/Diorama
- Write (worksheet, organizer)
- Act It Out/Skit
- Practice Doing
- Make a visual/graph/diagram
- Create a comic
- Do a 'chalk talk' with no or some words
- 3D Object
- Group Project
- Problem Solving
- Manipulative reperesentation

Materials (Student/Presentation) **Student Configuration Student Variability** - Textbook - Small Group - Time for completion - Workbook - Individual - Amount completed - Break schedule - Trade book - Whole Class - Interest Group/Leveled Group - Preview/Review Needs - Posters - Mixed ability Group - Worksheets - Reading and Comprehension Levels - Newspapers/magazines - 1 to 1 Instruction - Visuals Provided - Handout - Movement needs - Video - Individual vs. small group needs - Organization needs (checklist, - Images - Whiteboard breakdown) - Additional examples - Manipulatives - Audio/CD - Variety of tools, images, activities,

Notes and Reflections:

Universal Design for Learning Guidelines

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
Provide options for perception 1.1 Offer ways of customizing the display of information 1.2 Offer alternatives for auditory information 1.3 Offer alternatives for visual information	4: Provide options for physical action 4.1 Vary the methods for response and navigation 4.2 Optimize access to tools and assistive technologies	7: Provide options for recruiting interest 7.1 Optimize individual choice and autonomy 7.2 Optimize relevance, value, and authenticity 7.3 Minimize threats and distractions
2: Provide options for language, mathematical expressions, and symbols 2.1 Clarify vocabulary and symbols 2.2 Clarify symtax and structure 2.3 Support decoding of text, mathematical notation, and symbols 2.4 Promote understanding across languages 2.5 Illustrate through multiple media	Provide options for expression and communication 1.1 Use multiple media for communication 5.2 Use multiple tools for construction and composition 5.3 Build fluencies with graduated levels of support for practice and performance	8: Provide options for sustaining effort and persistence 8.1 Heighten salience of goals and objectives 8.2 Vary demands and resources to optimize challenge 8.3 Foster collaboration and community 8.4 Increase mastery-oriented feedback
3: Provide options for comprehension 3.1 Activate or supply background knowledge	6: Provide options for executive functions 6.1 Guide appropriate goal-setting	9: Provide options for self-regulation 9.1 Promote expectations and beliefs that optimize motivation
3.2. Highlight patterns, critical features, big ideas, and relationships 3.3 Guide information processing, visualization, and manipulation 3.4 Maximize transfer and generalization	6.2 Support planning and strategy development 6.3 Facilitate managing information and resources 6.4 Enhance capacity for monitoring progress	9.2 Facilitate personal coping skills and strategies 9.3 Develop self-assessment and reflection
Resourceful, knowledgeable learners	Strategic, goal-directed learners	Purposeful, motivated learners



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performance

Representation



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recogition tasks.

Provide Multiple Means of Representation:

How will you teach the content or how will students learn the content independently?

Action and Expression



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are stategic tasks.

How will students show you what they know?

Engagement



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

How will students be engaged in the content?

<u>UDL Guidelines – Educator Worksheet</u>

I. Provide Multiple Means of Representation:	Your notes
1. Provide options for perception	
1.1 Offer ways of customizing the display of information	
1.2 Offer alternatives for auditory information	
1.3 Offer alternatives for visual information	
1. Provide options for language, mathematical expressions, and symbols	
2.1 Clarify vocabulary and symbols	
2.2 Clarify syntax and structure	
2.3 Support decoding of text, mathematical notation, and symbols	
2.4 Promote understanding across language	
2.5 Illustrate through multiple media	
1. Provide options for comprehension	
3.1 Activate or supply background knowledge	
3.2 Highlight patterns, critical features, big ideas, and relationships	
3.3 Guide information processing, visualization, and manipulation	
3.4 Maximize transfer and generalization	
II. Provide Multiple Means for Action and Expression:	Your notes
1. Provide options for physical action	
4.1 Vary the methods for response and navigation	

	4.2 Optimize access to tools and assistive technologies	
1.	Provide options for expression and communication	
	5.1 Use multiple media for communication	
	5.2 Use multiple tools for construction and composition	
	5.3 Build fluencies with graduated levels of support for practice and performance	
1.	Provide options for executive functions	
	6.1 Guide appropriate goal setting	
	6.2 Support planning and strategy development	
	6.3 Facilitate managing information and resources	
	6.4 Enhance capacity for monitoring progress	
III.	Provide Multiple Means for Engagement:	Your notes
1.	Provide options for recruiting interest	
	7.1 Optimize individual choice and autonomy	
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