Fossil Find		
Grade: 3 rd	grade	Subject: Science
Materials:	Dinosaur Traveling kit : magnifying glasses, tweezers, sand,	Technology Needed: The Active board to view an introduction video:
dirt, paint l	brushes, safety glasses fossils and their identification	https://youtu.be/XW7EPuXnFcM
cards, pape	er towels, access to the active board and wifi, data analysis	
sheets, per	ncils and access to a sink.	
Instruction	al Strategies:	Guided Practices and Concrete Application:
Direct	instruction 🗸 Peer	Large group activity
□ Guide	d practice teaching/collaboration/	Large group activity Tanus-on Tanus-on Tanus-on
Socrat	ic Seminar 🗸 cooperative learning	Independent activity Independent acti
🗸 Learni	ng Centers 🗸 Visuals/Graphic organizers	Simulations (Sconarios
Lectur	e DBL	Other (list)
Techn	ology integration 🛛 Discussion/Debate	
□ Other	(list)	Explain.
Standard(s		Differentiation
SCI-03.I S4-1		Below Proficiency:
Analyze an	d interpret data from fossils to provide evidence of the	Allow students to take a look through the book. "Fossil" by Bill
organisms a	and the environments in which they lived long ago.	Thomson. The student can look through the book to help them
- 8-		better understand where the fossils come from and how we can
Objective(s)		find them before they start their dig.
By the end	of the lesson students will discover and analyze various	
fossils. Students will hypothesize information about their fossils to		Above Proficiency:
determine where and what it came from		Have students take measurements of the fossils they find and
Bloom's Taxonomy Cognitive Level: Comprehension, Application,		allow them to use a computer to look up possibilities of what their
Analvsis. ar	nd Svnthesis.	fossil could be as well as what it looked like when it was alive or
- // -		fresh.
		Approaching/Emerging Proficiency:
		Students will discover and analyze various fossils. Students will
		hypothesize information about their fossils to determine where
		and what it came from.
		Modalities/Learning Preferences:
		Visual. Tactile Hands-On. Aural
Classroom Management- (grouning(s) movement/transitions.etc)		Behavior Expectations- (systems, strategies, procedures specific to the
Grouping st	trategies: pair students up according to their socks and	lesson, rules and expectations, etc.)
shoes		
Give studer	nts all instructions up until the very last section where they	Remind students to be mindful of the classrooms around them.
receive the	ir fossil card.	If students are getting too excited and having a hard time focusing give
Allow stude	ents to get their own supplies in an assembly line fashion.	them a reminder first and a consequence of walking away if they have
Remind stu	idents to be mindful of the classrooms around them.	to be asked again, but allow them to come back and try again once.
Put the list of directions and supplies needed on the board		Remind the students of the rule : "When I am talking you are not."
The first of directions and supplies needed on the board.		
Minutes	Procedures	
10 min	Set-up/Prep:	
	Load the video and have it ready to be played at the 6 minute	e and 30 second mark; https://youtu.be/XW7EPuXnFcM.
	Prepare all of the fossils in their containers by covering them	with sand and dirt, enough for each group of 2 to have one.
	Lay out all the "digging equipment; tweezers, magnifying glasses paint brushes and safety glasses so the student can come gather	
	their supplies easily.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Set aside the fossil information cards.	
	Write the objective on the board	
3-5 min	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)	
	Have the children come in front of the active board and ask t	hem to talk about what they have previously learned on fossils.
	Ask students if they remember or know what the name of the career is that hunts, digs up and analyzes fossils. Give the students a	
	chance to turn and talk to a partner about what they think it is called. Tell students it is a paleontologist; which means a person who	
	studies dinosaurs and fossils. Explain they will be watching a	short clip of some paleontologists and ask them to notice the tools and
	equipment they are using.	
	Play the video	
15-20	Explain: (concepts, procedures, vocabulary, etc.)	
•	After the video explain to the students that today they will have a chance to be paleontologists today. Ask the students if they can	

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	identify some types of fossils, ex. plants, animals, dinosaurs, to the objective on the board and have a student read it out	etc. Explain to students by doing this they will reach their objective. Pont loud. Explain the objective by asking them to help identify the meaning of	
	Next, have the students choose a partner by finding someon	e with the same color socks or shoes and have them sit next to their	
	Explain to the students that with their partner they will get a containers contains REAL fossils. Ask students if they can ren video. Show them the tools they will be using. Explain to the safety glasses each, a tweezers, a paint brush, some paper to Pause to check for understanding	container of sand and dirt just like the earths layers. Each of the nember and identify some of the tools that the paleontologist used in the m that when you say begin, the students will grab a container, a pair of owels and a magnifying glass each.	
	Instruct the students that they will also be asked to get a fos	sil analyzing sheet.	
	and where it may have come from.		
	After all questions have been answered tell students to "Beg	in".	
20-25	Explore: (independent, concreate practice/application with	relevant learning task -connections from content to real-life	
min	experiences, reflective questions- probing or clarifying questions)		
	Students will collect their supplies and begin their dig. As students are digging walk around and monitor the progress of their dig. Remind students to go slow and be gentle as they dig and share the responsibility equally.		
	As the students begin to come to the end of their dig and are filling out their data sheet, gain their attention. Tell them to check their		
	nypothesis they must bring their data sheets to you and see if they guessed their fossil correctly. This can be done as a whole group if time allows.		
	When everyone has discovered their fossils give them their corresponding fossil card and have them go back and fill their data sheets		
	out with the accurate information but make sure to tell them not to erase anything they have previously wrote. Have students turn in		
	notebook.	be returned and the students may cut and glue them into their science	
3-5 min	-5 min Review (wrap up and transition to next activity):		
	At the end of the activity, have students meet back in front of the active board to wrap up and share what their learning experience was like. Revisit the objective and ask students if they were able to meet the objective. Ask if they felt like they went through all the vocabulary terms		
	Ask the students what can we learn from fossils? With this question we are looking for the answer, fossils can tell us how animals,		
	plants and the earth have changed over time.		
	Tell students that we will now clean up, remind them to work together to clean up any dirt, wash the tools and get ready for their next activity.		
Formative	Assessment: (linked to objectives)	Summative Assessment (linked back to objectives)	
Progress monitoring throughout lesson- clarifying questions, check-		End of lesson:	
in strategies, etc.		Using the attached rubric and their data analysis sheets look to assure	
Using a self-correcting system, a formative assessment will be		lesson.	
performed through the data analysis sheets. This will allow students to			
look at wha	at they may have missed when analyzing their fossils.	If applicable- overall unit, chapter, concept, etc.:	
Considera	ation for Back-up Plan:		
Students ca	an gather and do a formative assessment by answering the		
Deflection			
Ketlection	INVITAL WENT WELLY WHAT DID THE STUDENTS LEARNY HOW ON VOLL		

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For this lesson I used the "This Kit Rocks: among fossils and other things". Ironically this kit was put together by another University of Mary student. There were lessons in it that I looked through but I changed them and made it applicable to third grade and my own students in what they were learning. The students loved this activity; they were engaged and excited the whole time. If I were to do this lesson again I would reconstruct the Data sheet and focus more on what analyzing means. Some students were just answering the questions with one word answers instead of really analyzing their fossil to further their learning. One of the questions on the data sheet were, "Have you ever seen this before?" so students would just answer "no". Instead I should have said "Where do you think this could be found today?"

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After the students analyzed their fossil, they had so much fun checking to see what their fossil was and where it originally came from. On their data sheet they were to write details about their fossil, but some of the students ran out of time for that because of the cleaning up process. So in the future I would definitely give this lesson more like an hour and a half instead of just an hour to endure that the students get time to fill out their data sheets with meaningful details. During the lesson there were a few things that I needed to remind the students about which caused the learning to be interrupted a few times and I think that is hard for them when they are deep into their exploring. At the same time, sometimes taking a moment to pause, address a concern and letting them refocus back into their learning gives an opportunity for them to stop and think about how productive they are being. So if I were to do this lesson again I would also put the instructions for cleaning up right away and go over them with the students to ensure that they cleaned up before they filled out their data sheets and analyzed their fossil.

The kit also contained some chisels which to me were not necessary for any part of this lesson as they were just digging in loose dirt. So Next time I would provide spoons or small shovels.

Another thing I liked about this lesson was that I used sand and soil to show the layers of the earth. In the soil there were many different items like rocks and sticks which made the dig a little more challenging but in a good way. I would maybe get bigger containers to put the dirt in and maybe include a cookie sheet for them to go through the dirt on as they were digging.