Subject/Grade: Science/ Grade 2	Lesson Title: Exploring Matter: Solid or Liquid?
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Stage 1: Identify Desired Results			
Established Goals: (Learning outcome/s & indicator/s from curriculum)			
<b>Outcome:</b> LS2.1 Investigate properties (e.g., colour, ta solids.	aste, smell, shape, and texture) of familiar liquids and		
<ul> <li>Indicators:</li> <li>a) Pose questions that lead to investigation and exploration of the properties of familiar liquids and solids.</li> <li>b) Classify objects in various natural and constructed environments as liquids or solids.</li> <li>c) Select and safely use materials and tools (e.g., magnifier, scale, measuring cup, and spatula) to carry out explorations of the observable physical properties of familiar liquids and solids.</li> </ul>			
<ul> <li>Understandings: (can also be written as 'I Can' statem <i>Students will understand</i></li> <li>I can explore the qualities that pertain to liquids such as colour, taste, smell, shape and texture.</li> <li>I can use questions to examine and learn about a liquids and solids.</li> <li>I can categorize and group objects as liquids or</li> <li>I can use tools in safe ways to examine various liquids and solids.</li> </ul>	U ments)Essential Questions:-What questions could you ask to further lead you in your investigations of liquids and solids?familiar-familiar-what safety considerations might you make when using tools to explore liquids and solids?s attributes of-What observations can you record about the objects that can help you classify them as liquids or solids?		
<ul> <li>Students will know</li> <li>How to differentiate between the attributes of liquids and solids when recognized in natural and constructed environments. Students will also know how to exercise safety when using tools to investigate aspects of liquids and solids.</li> </ul>	<ul> <li>Students will be able to</li> <li>Use their questions as a tool to expand their knowledge of the attributes of liquids and solids. Students will be able to correctly identify objects as liquids or solids by examining their innate qualities and practicing safety during investigations.</li> </ul>		

### Stage 2: Determine Evidence for Assessing Learning

# Assessment Checklist - Exploring matter: Solid or Liquid?

#### Stage 3: Build a Learning Plan

### **Instructional Strategies:**

Interactive instruction: Develop a concept map with the students to foster understanding of solids, liquids and gasses.

Experiential learning: Students will engage in the categorization of solids and liquids as they proceed through stations.

		Materials/Resources:
<ul> <li>Set (Engagement): <ul> <li>To introduce the topic introduction video the liquids, solids and gate</li> <li>Following the video, concept map on either will collectively expect think of to write down gases.</li> <li>The teacher will beg "Together, let's put or be able to brainstorm liquids and gases. I we like to share an example and list the contains examples or the second sec</li></ul></li></ul>	Length of Time: 10 Minutes c, the teacher will show the students an at explains the differences between uses. Play the video until 5:37 minutes. the teacher and students will create a er the whiteboard or a flip chart that ress different examples that the students on as examples of solids, liquids and in this concept map by saying: n our thinking caps and see if we might a or think of some examples of solids, will jot down our ideas. Would anyone uple of a solid, liquid or gas? ontinue asking the students to provide em in the concept map until the map feach kind of matter.	<ul> <li>Video: What is Matter? (Peekaboo kIds, 2019).</li> <li>selection of containers and scoops for measuring</li> <li>weigh scale</li> <li>sand, rocks, flour, sugar, rice</li> <li>water (food colouring to make water different colours)</li> <li>objects such as wooden blocks or toys</li> </ul> Possible Adaptations/ Differentiation: <ul> <li>Providing visual support such as images or videos</li> </ul>
Development:	Time: 20 Minutes	students with hearing
- For today's lesson, w which the students w engage actively with	we will go through a few stations in ill be able to explore, investigate, and multiple objects, both liquid and solid.	<ul> <li>Allow students to work in pairs or small groups</li> <li>assign groups to certain categories (solids liquids) to</li> </ul>
- Station 1: Categoria • Place a select These objects plastic toy, an	<b>ring Challenge</b> tion of objects in front of the students. to can include water, sand, a rock, a and a wooden block.	<ul> <li>alternative materials such as digital simulations for visual learners.</li> </ul>

0	A de atudanta ta astagariza thasa abiasta ag aithar	Add more stations if students	
0	"liquids" or "solids" based on their observations and	- Add more stations in students	
	nrior knowledge	quickly such as evaporation	
0	Discuss their categorization choices and encourage	statin etc.	
	them to explain why they classified each object as		
	they did.		
		Management Strategies:	
- Statio	n 2: Safe Tool Exploration	- Clear expectations	
0	Provide students with a variety of tools such as	- time management	
	magnifiers, scales, measuring cups, and spatulas.	- behaviour expectations	
0	Place samples of different liquids (water, juice) and	- safety reminders	
	solids (flour, sugar) at this station.		
0	Instruct students to select a tool and safely use it to		
	investigate the observable physical properties of	Safaty Considerations.	
0	Discuss the sefety considerations, onsuring that	Be aware of student allergies to	
0	students handle the tools carefully and follow safety	the objects chosen to use	
	guidelines	the objects chosen to use	
	Burdennes.		
<b>Closure:</b>	Time: 5 minutes		
- For the	e closure, students will complete a Classification		
challer	nge, that may look like this		
0	Place a series of mystery objects at this station.		
	These objects will be hidden from view.		
0	Students will use their knowledge and observations		
	to determine if the concealed objects are liquids or		
_	solids and state why.		
0	and have students compare them		
- This c	and have students compare them.		
studen	ts are after this lesson has been completed		
Staden	is are after this responded over compreted.		
Stage 4: Reflection			

Professional Development Goal is...

Developing adaptable interactive learning opportunities: The preparation of this lesson has allowed us to develop explorative learning opportunities by creating multiple stations with different tasks. This preparation has also led to the planning of differentiation or adaptations that can be made if needed.

Provide multiple opportunities for students to show what they know: Throughout the development of these learning activities, we hope to use observation and recordable data in our formative and summative assessments to allow for students to achieve the desired results.

Reflect: Reflection is important to participate in when a lesson is completed and something we plan on participating in. This allows for time to determine what went well during the lesson and where there are opportunities to improve to ensure students fulfill the outcome and to ensure our pedagogy is culturally responsive.

# Infographic

Exploring Matter: Solid or Liquid (Infographic)

#### References

Peekaboo Kidz. (2019, May 3). *What is matter? - The Dr. Binocs show - Best learning videos for kids - Peekaboo kidz*. YouTube [Video]. https://www.youtube.com/watch?v=QQsybALJoew&t=36s.

Ministry of Education. (2009). Saskatchewan Curriculum: Home. Saskatchewan Curriculum . https://www.edonline.sk.ca/webapps/moe-curriculum-BB5f208b6da4613/