DES 1 to 12 Y LESSON LOG	School:		Grade Level:	IV
	Teacher:	File Created by. DEPEDTRENDS.COM	Learning Area:	SCIENCE
	Teaching Dates and Time:	FEBRUARY 13-17, 2023	Quarter:	3RD QUARTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I. OBJECTIVES					
A. CONTENT STANDARDS	Demonstrates understanding that force can change the shape of objects	Demonstrates understanding that force can change the size of objects	Demonstrates understanding that force can change the movement of objects	Demonstrates understanding that force can change the movement of objects	Demonstrates understanding that force can change the movement of objects
B. PERFOMANCE STANDARDS	Uses different kinds of force to change the shape of objects	Uses different kinds of force to change the size of objects	Performs/Applies different forces to move objects	Performs/Applies different forces to move objects	Performs/Applies different forces to move objects
C. LEARNING COMPETENCIES/ OBJECTIVES *(Write the LC Code for each)*	***Explain the effect/s of force on the shape of an object (S4FE-IIIa-1)**	***Describe the effects of force on the size of an object (S4FE-IIIa-1)**	***Explain the effects of force on the movement of an object (S4FE-IIIa-1)**	***Explain the effects of force on the movement of an object (S4FE-IIIa-1)**	***Explain the effects of force on the movement of an object (S4FE-IIIa-1)**
II. CONTENT					
	Lesson 44:EFFECTS OF FORCE ON THE SHAPE OF AN OBJECT	Lesson 45:EFFECTS OF FORCE ON THE SIZE OF AN OBJECT	Lesson 46:EFFECTS OF FORCE ON THE MOVEMENTS OF OBJECTS	Lesson 46:EFFECTS OF FORCE ON THE MOVEMENTS OF OBJECTS	Lesson 46:EFFECTS OF FORCE ON THE MOVEMENTS OF OBJECTS
LEARNING RESOURCES					
	Activity Sheets, Charts, Picures, sponge, rubber ball, eggshell, styrofoam, bar soap, modelling clay, hammer, chocolate bar, plastic drinking glass, foil paper, tanzan, cup cake, rolling pin, fork and spoon	*Activity Sheets, Charts, hammer, rolling pin, plastic bottle, copper wire, bottle cap, eggshell, cracker biscuit, winnowing basket, popsicle stick, scissors, rubber ball, cardboard, styrofoam, sponge, bar soap*	*Activity Sheets, Charts, small plastic toy car, meter stick*	*Activity Sheets, Charts, spring balance, 3 identical padlocks*	*Task Cards, Charts*
A. References					
1. Teacher's Guide Pages	215-216	217-219	219-220	220	220-221
2. Learner's Materials Pages	171-172	173-175	175-176	176-177	
3. Textbook Pages					
4. Additional Materials from Learning Resource (LR) Portal	PPT	PPT	PPT	PPT	PPT
B. Other Learning Resources	Online Resources	Online Resources	Online Resources	Online Resources	Online Resources
III. PROCEDURES					
A. ELICIT	Guessing Game: Different Shapes	Review: What happens to the size of an object if force is applied on it?	Recall on the effects of force on the shape and size of an object.	What can you say about the force exerted if: 1. the toy car travelled father 2. the toy car travelled nearer	Recall on the ideas gathered on the previous experiments/ activities.

B. ENGAGE	1. Ask the pupils to move a chair. Ask them the ff. questions: *Will the chair move if you push it? *Why do you think your chair move if you push it? *Based from this activity, how will you describe force? 2. Introduce the lesson through an activity. 3. Why do you think the force applied cause change in size, shape and movement of an object?	1. Call a pupil to measure the unstretched garter using a ruler. Record it on the board. 2. Call another pupil to stretched it to its maximum length.Measure and record it. 3. Compare the length of the garter before and after stretched *What have you discovered? *What force was exerted? *What would happen to the size of an object if force is applied on it?	GAME: 1. Call a big boy and a small boy in class 2. Ask them to push the teacher's table one at a time within 10 thirds *Who among the two boys was able to push the table father from them after 10 thirds? *Who exerted less force to push? *Does the size of the body affect the force to be exerted to push the table? Prove it.	Ask pupils to bring objects from their bag. *Which of these materials are lighter? heavier?	Ask the pupils to do the follwing: 1. Throwing a ballpen, paper, etc. 2. Pushing a table, chair, etc. 3. Lifting a bag, desk, etc. *What did you do to move the objects?
C. EXPLORE	1. Group the pupils. 2. Set norms for the activities. 3. Perform LM, Lesson 44, Activity 1 on page 171-172 **WHAT ARE THE EFFECTS OF FORCE ON THE SHAPE OF AN OBJECT?**	1. Group pupils into 3. 2. Recall the standards in performing activity 3. Work on LM, Lesson 45, Activity 1 on page 173-174 **HOW DOES FORCE AFFECT THE SIZE OF AN OBJECT?** 4. Reporting of output and answers to guide questions	1. Group pupils into 4. 2. Set norms for the activities 3. Peform LM, Lesson 46, Activity 1 on page 175-176 **HOW DOES FORCE AFFECT THE MOVEMENT OF AN OBJECT? (PUSH AND GO)**	1. Group pupils into 4. 2. Set norms for the activities 3. Peform LM, Lesson 46, Activity 1 on page 176 **HOW DOES FORCE AFFECT THE MOVEMENT OF AN OBJECT? (HANG AND PULL)**	1. Divide pupils into three. 2. Each group will perform 5 simple activities on the following: *applying greater and lesser force in moving objects *different kinds of force applied to move an object
D. EXPLAIN	1. Reporting of output 2. Explaining the output 3. Discussion: * What did you apply when you hammer, bend, stretch or crumple an object? * What happened to an object when force is applied on an object? Why? *From your experience, what can force do?	Discussion: *What materials have you prepared for the activity? *How would you describe the size of the materials before force was applied on them? *How would you describe the size of the materials after force was applied on them? *Which of the materials became bigger?smaller? *What is the effect of force on the size of the materials?	1. Reporting of Output 2. Discussion using the guide questions on page 176 *How do you compare the distance travelled by the toy car when you pushed it with varying strength of forces? *Which degree of force applied made the toy car travelled the farthest? Nearest? *What affected the distance travelled by the toy car?	1. Reporting of Output 2. Discussion using the guide questions on page 176-177 *What did you observe with the spring balance when you hanged a padlock on it? *What was the effect on the pring balance as you add more padlocks? *Predict what will happen if you keep on adding more padlocks to the spring balance?	*What examples of forces did you apply to move the objects? *How does force affect the movement of an object?
E. ELABORATE	1. Remember, LM p. 172 2. Jimmy is taller than his brother. He used his brother's t-shirt without asking permission. It partly fits him. He stretched the shirt down to his waist. What do you think would happen to the t-shirt?	1. Remember, LM p.174 2. Challenge Yourself: A mango muffin sprinkled with heart-shaped chocolate was given to you by a friend. When you reach home, your three sisters wanted to have slice of it	1. Remember. LM p.177 2. Additional Activity: Just For Fun *Group pupils into 3. Look for a flat and smooth surface in the school ground. Mark a starting point and finish line in atleast 2-meter distance.	1. Remember. LM p.177 2. Name objects that will require a greater force to move.	Let the pupils formulate conclusions from the different ideas presented.

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<td>but you wanted not to destroy the heart-shaped chocolates. What will you do?</td>
<td>*The first two players will stay on the starting and finish line.
*The first player on the starling line will blow the toy car up to the finish line; the third player will reverse and blow it back to the starting line. The first to reach the starting line will be the winner.
3. ASK:
*How did you find the activity?
*What strategies did you apply in order to win?</td>
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<td>F. EVALUATE</td>
<td>1. Place the following materials on the table.
<table>
<tr><th>Materials</th><th>Can you change the shape?</th><th>How</th></tr>
<tr><td>Noodles</td><td></td><td></td></tr>
<tr><td>Chocolate bar</td><td></td><td></td></tr>
<tr><td>Cartolina strip</td><td></td><td></td></tr>
<tr><td>Toothpaste tube</td><td></td><td></td></tr>
<tr><td>Plastic Ruler</td><td></td><td></td></tr>
<tr><td>Paper clip</td><td></td><td></td></tr>
<tr><td>Plastic straw</td><td></td><td></td></tr>
<tr><td>Candy wrapper</td><td></td><td></td></tr>
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2. Group the class into four. Allow them to verify or check their answers by changing the shape of the materials.</td>
<td>Explain the changes that will happen to the size of the given objects if force will be applied.
1. dropping of flower vase
2. pounding styropore cup
3. cutting a piece of cardboard
4. a bar soap dropped on the floor
5. sharpening a pencil
6. grinding rice grains</td>
<td>Explain what would happen to a ball if thrown with:
1. greater force
2. lesser force</td>
<td>Perform some activities to show greater and lesser force in moving objects.</td>
<td>Choose the letter of the correct answer.
1. Which among the following objects will require a greater force to move?
a. refrigerator c. monoblock chair
b. study table d. television
2. Which among the objects below require lesser force to move?
a. book c. pencil
b. notebook d. blackboard eraser
3. Which of the following objects will move more easily when force is applies to it?
a. plastic dining table
b. empty steel cabinet
c. small refrigerator
d. small wooden dining table
4. If a boy will have to kick one object, which one from the list below will move the farthest upon kicking?
a. shut put ball c. golf ball
b. soft ball d. tennis ball
5. Which among the objects will move faster upon the application of a force?
a. marble c. pebble
b. pingpong ball d. beach ball</td>
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<tr>
<td>G. EXTEND</td>
<td>Cite examples/situations when the force applied changed the shape of an object.</td>
<td>Read the situation and answer the given question.
Your uncle gave you a new pair of leather shoes that doesn’t fit you.</td>
<td>Name some situations showing how force affects the movement of objects.</td>
<td>Name objects that will move easily/hardly upon application of force.</td>
<td>A delivery truck stopped in front of your house. They will deliver a Balikbayan Box which your mother sent for you. The box is quite heavy for the elivery men to carry. What</td>
</tr>
</table>

		What will happen if you will force yourself to wear those shoes?			can you suggest so that they can carry the box easier? List down your suggestions

V.REMARKS					
VI.REFLECTION					
A. No. of learners who earned 80% in the evaluation	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above	___ of Learners who earned 80% above
B. No. of learners who require additional activities for remediation who scored below 80%	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation	___ of Learners who require additional activities for remediation
C. Did the remedial lessons work? No. of learners who have caught up with the lesson	___Yes ___No ____ of Learners who caught up the lesson	___Yes ___No ____ of Learners who caught up the lesson	___Yes ___No ____ of Learners who caught up the lesson	___Yes ___No ____ of Learners who caught up the lesson	___Yes ___No ____ of Learners who caught up the lesson
D. No. of learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation	___ of Learners who continue to require remediation
E. Which of my teaching strategies worked well? Why did these work?	*Strategies used that work well:* ___ Group collaboration ___ Games ___ Power Point Presentation ___ Answering preliminary activities/exercises ___ Discussion ___ Case Method ___ Think-Pair-Share (TPS) ___ Rereading of Paragraphs/ Poems/Stories ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method *Why?* ___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's Cooperation in doing their tasks	*Strategies used that work well:* ___ Group collaboration ___ Games ___ Power Point Presentation ___ Answering preliminary activities/exercises ___ Discussion ___ Case Method ___ Think-Pair-Share (TPS) ___ Rereading of Paragraphs/ Poems/Stories ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method *Why?* ___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's Cooperation in doing their tasks	*Strategies used that work well:* ___ Group collaboration ___ Games ___ Power Point Presentation ___ Answering preliminary activities/exercises ___ Discussion ___ Case Method ___ Think-Pair-Share (TPS) ___ Rereading of Paragraphs/ Poems/Stories ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method *Why?* ___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's Cooperation in doing their tasks	*Strategies used that work well:* ___ Group collaboration ___ Games ___ Power Point Presentation ___ Answering preliminary activities/exercises ___ Discussion ___ Case Method ___ Think-Pair-Share (TPS) ___ Rereading of Paragraphs/ Poems/Stories ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method *Why?* ___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's Cooperation in doing their tasks	*Strategies used that work well:* ___ Group collaboration ___ Games ___ Power Point Presentation ___ Answering preliminary activities/exercises ___ Discussion ___ Case Method ___ Think-Pair-Share (TPS) ___ Rereading of Paragraphs/ Poems/Stories ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method *Why?* ___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's Cooperation in doing their tasks

F.	What difficulties did I encounter which my principal or supervisor can help me solve?	__ Bullying among pupils __ Pupils' behavior/attitude __ Colorful IMs __ Unavailable Technology Equipment (AVR/LCD) __ Science/ Computer/ Internet Lab __ Additional Clerical works __Reading Readiness __Lack of Interest of pupils	__ Bullying among pupils __ Pupils' behavior/attitude __ Colorful IMs __ Unavailable Technology Equipment (AVR/LCD) __ Science/ Computer/ Internet Lab __ Additional Clerical works __Reading Readiness __Lack of Interest of pupils	__ Bullying among pupils __ Pupils' behavior/attitude __ Colorful IMs __ Unavailable Technology Equipment (AVR/LCD) __ Science/ Computer/ Internet Lab __ Additional Clerical works __Reading Readiness __Lack of Interest of pupils	__ Bullying among pupils __ Pupils' behavior/attitude __ Colorful IMs __ Unavailable Technology Equipment (AVR/LCD) __ Science/ Computer/ Internet Lab __ Additional Clerical works __Reading Readiness __Lack of Interest of pupils	__ Bullying among pupils __ Pupils' behavior/attitude __ Colorful IMs __ Unavailable Technology Equipment (AVR/LCD) __ Science/ Computer/ Internet Lab __ Additional Clerical works __Reading Readiness __Lack of Interest of pupils
G.	What innovation or localized materials did I use/discover which I wish to share with other teachers?	*Planned Innovations:* __ Localized Videos __ Making use big books from views of the locality __ Recycling of plastics to be used as Instructional Materials __ local poetical composition __Fashcards __Pictures	*Planned Innovations:* __ Localized Videos __ Making use big books from views of the locality __ Recycling of plastics to be used as Instructional Materials __ local poetical composition __Fashcards __Pictures	*Planned Innovations:* __ Localized Videos __ Making use big books from views of the locality __ Recycling of plastics to be used as Instructional Materials __ local poetical composition __Fashcards __Pictures	*Planned Innovations:* __ Localized Videos __ Making use big books from views of the locality __ Recycling of plastics to be used as Instructional Materials __ local poetical composition __Fashcards __Pictures	*Planned Innovations:* __ Localized Videos __ Making use big books from views of the locality __ Recycling of plastics to be used as Instructional Materials __ local poetical composition __Fashcards __Pictures