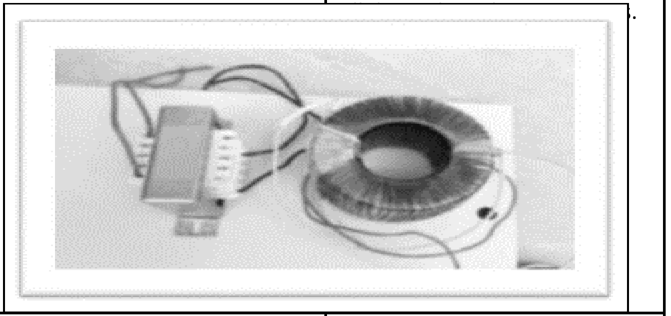
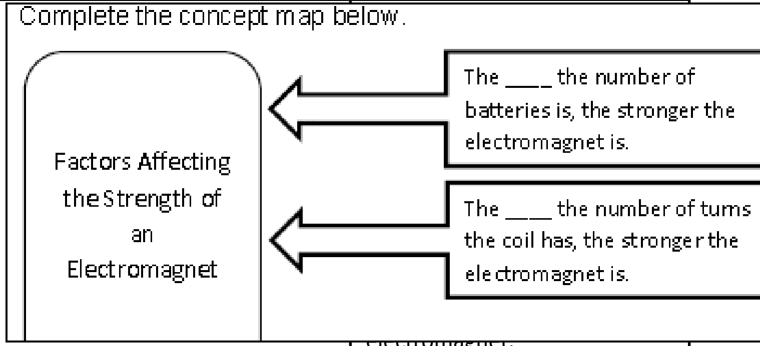
GRADES 1 to 12 DAILY LESSON LOG	School:		Grade Level:	V
	Teacher:	File created by Ma'am EDNALYN D. MACARAIG	Learning Area:	SCIENCE
	Teaching Dates and Time:	APRIL 11-14, 2023 (WEEK 9)	Quarter:	3RD QUARTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I.OBJECTIVES					
A.Content Standards	"The Learners demonstrate understanding of a simple DC circuit and the relationship between electricity and magnetism in electromagnets."				
B.Performance Standards	The learners should be able tell the main parts of an electromagnet.				
C.Learning Competencies/Objectives		Construct an electromagnet.S5FE-IIIi-j9	Design an experiment to determine the factors that affect the strengthof the electromagnet.S5FE-IIIi-j9	Determine the factors that affect the strength of the electromagnet.S5FE-IIIi-j9	Explain the importance of electromagnet in daily life.S5FE-IIIi-j9
II.CONTENT		Electricity and Magnetism	Electricity and Magnetism	Electricity and Magnetism	Electricity and Magnetism
III.LEARNING RESOURCES					
A.References					
1.Teacher's Guide pages		Science Exemplar pages 606-609	Science Exemplar pages 606-609	Science Exemplar pages 606-609	Science Exemplar pages 606-609
2.Learners's Materials pages					
3.Textbook pages		h. Cyber Science 5, Nicetas G. Valencia et. al., pp. 279 – 284 i. Science and Health 5, Natividad Alegre, p. 190	Cyber Science Worktext in Science and Technology 5, Nicetas G. Valencia et. al., pp.279- 284		Cyber Science 5, Nicetas G. Valencia et. al., pp. 282-283
4.Additional materials from learning resource (LR) portal			https://www.youtube.com/watch?v=XKUs7Dc9pKI	http://www.ehow.com/how_4461184_increase-strength-electromagnet.html	https://www.youtube.com/watch?v=P1H4b25BCo4)
B.Other Learning Resource		activity sheet, 1.5V battery, electric wires, an iron bar or a big nail, paper clips, thumbtacks and other small metallic objects, PowerPoint presentation, laptop	ball, strip of papers, Video presentation, activity sheet, constructed electromagnet,powerpoint presentation, laptop	strips of cartolina,picture, Activity sheet, PowerPoint presentation, laptop, 2 dry cells, 50 cm copper wire, large iron nail, 50 staple wire, 6' 10mm iron rod , paper clips	videoclip, powerpoint presentation, chart, laptop
IV.PROCEDURES					
A.Reviewing previous lesson or presenting the new lesson		Inside the mystery box the pupil will guess the correct answer written in a strip of paper about the important or ideal material in producing a good electromagnet. 8. It is the core around which the wire is coiled ________. (nail) 9. It supplies electric current _______. (dry cell) 10. It is the conductor where the current flow _______. (wire)	Play the music then pass the ball, when the music stops whoever holds the ball will answer the question written on a strip of paper. Questions: What materials are used in constructing an electromagnet? What does electromagnet usually consist of? What serves as the conductor of	LET'S PLAY Make two groups consisting of five members. Give them strips of cartolina where steps on how to construct electromagnet are written. Simultaneously, let them arrange the strips of cartolina by pasting them on the board in correct sequence. The first group to finish correctly will be the winner.	Let each pupil check whether there is a strip of paper with question written under his/ her chair. Whoever gets it will answer the question written on it. 1. What makes the electromagnet stronger? 2. What happens when you increase the number of batteries of an electromagnet?

			electricity? When do magnetic fields disappear?		3. How is the number of coil of wire affect the strength of an electromagnet?
B.Establishing a purpose for the lesson		Do you have toy car at home? Have you experienced to play Tamiya toy car? What makes it move? (The teacher may also show a Tamiya toy car and let pupils see the motor that makes Tamiya move)	Watch the video clip https://www.youtube.com/watch?v=XKUs7Dc9pKI What does the video imply? Can electromagnet be made stronger?	Study the picture of a constructed electromagnet. Look how is the wire coiled. How is the picture different from the electromagnet that you had constructed in our previous activity?	Have you ever stopped to think how you are able to hear music and other sounds from stereo speakers? You may have an iPod, iPhone or cell phone which you carry anywhere you go? How do these help you? The speakers in these devices . 
C.Presenting Examples/ instances of the new lesson		Group Activity: “Constructing an Electromagnet” Approach: Inquiry-based Strategy: Knowledge-Building community model Activity: EIBU XVI. Problem: How will you construct an electromagnet? XVII. Materials: 1.5V battery, electric wires, an iron bar or a big nail, paper clips, thumbtacks and other small metallic objects XVIII. Procedures: 8. Wind the electric wire 10-15 times around the iron bar or nail. Attach one end of the wire to the positive terminal of the battery and the other end to the negative terminal to complete the circuit. 9. See how your electromagnet works! Put it near some paper clips, thumbstacks and other metallic objects. Observe what happens. 10. Disconnect the wire at one end. Observe again the metallic	Group Activity: “Making Me Stronger” Approach: Inquiry – based Strategy; Cyclic-Inquiry Model and Practical Inquiry Model Activity: AICDR (Ask, Investigate,Create, Discuss, Reflect) XVI. Problem: Can you design an experiment to determine the factors that affect the strength of an electromagnet? XVII. Materials: constructed electromagnet used in previous activity XVIII. Procedure: 12. Group yourself into three. 13. Brainstorm on how can you make electromagnet stronger. 14. Design your own experiment to determine the factors that affect the strength of the electromagnet. Group I- Type of Core Group II- Number of Coils Group III- Number of Batteries	Group Activity: “Am I Stronger ?” Approach: Inquiry-based Strategy: Experiment Activity: EIBU XI. Problem: What factors affect the strength of an electromagnet? XII. Materials: 2 dry cells 50 cm copper wire 1 large iron nail 50 staple wire 6’ 10mm iron rod paper clips III. Procedures: 7. Get the iron nail and touch it to the paper clips and pins.Observe what happens. 8. Get the wire and wrap it tightly around the nail once. Then connect the wire ends to one of the batteries. Then touch the staples with it. 9. Experiment with different number with coil turns (10, 20, and 30) and observe what happens. See how many staples it can pick up. 10. Do the same process (numbers 2 and 3 above) using	Group Activity: “ Know My Usefulness” Approach: Constructivism Strategy: Activity Based Activity: 3’A’s I. Problem: What are the importance of electromagnet in our daily lives? II. Materials: video clip of the importance of the electromagnet in our daily life (https://www.youtube.com/watch?v=P1H4b25BCo4) III. Procedures 1. Watch the video clip. 2. Jot down the 4 situations that show how life is possible with and without electromagnet. 3. Fill in the table below.

		objects. Guide Questions: 1. What are needed in constructing an electromagnet? 2. Where does the strength of an electromagnet come from? 3. What happened if you put the electromagnet near the paper clips, thumbstacks and other metallic objects? 4. What happened after you disconnect the wire? 5. What did you construct? XIX. Conclusion:		two batteries and the rod. 11. Record your observation in the table below.	
D.Discussing new concepts and practicing new skills #1		Group Reporting / Presentation of the Output Sharing of results	Group Reporting / Presentation of the Output Sharing of results	Group Reporting / Presentation of the Output Sharing of results	Group Reporting / Presentation of the Output Sharing of results
E.Discussing new concepts and practicing new skills #2		Answer these questions: e. When does an electromagnet behave like a magnet? f. Why does an electromagnet can attract pins if there is an electricity?	3. Answer these questions: c. What does each group presented? d. What materials will be added/ manipulated in your designed experiment to determine the strength of an electromagnet?	Answer these questions: If you add coils to an electromagnet, does the magnet get stronger or weaker? Why? What happens if the current increases? Does the type of core affect the strength of electromagnet? Why? Why not?	Electromagnets are used to a great extent in communication or in sending signals as in telephone, telegraph, radio and television. How do these help us?
F.Developing Mastery		Direction: Identify whether the statement is TRUE or FALSE. If false, identify the word that makes it false. 11. An electromagnet is a magnet mode formed when an electric current is passed thru wire coiled around it. 12. The ability to attract metallic objects can be switched on and off because of nail. 13. Electricity flows through the wire with an iron bar (nail) inside it when connected to the battery. 14. The iron bar turns into a magnet and picks any object. 15. When the wires are disconnected, the iron bar loses its magnetic ability.	Draw a ☼ if the statement is correct and × if not. 1. Magnet is not used in making an electromagnet. 2. An electromagnet behaves like magnet only when the wire is wrapped around an iron core. 3. Number of batteries may affect the strength of an electromagnet. 4. Number of coils may not affect the strength of an electromagnet.	 Complete the concept map below. The ____ the number of batteries is, the stronger the electromagnet is. The ____ the number of turns the coil has, the stronger the electromagnet is.	electromagnet. 3. Even without electromagnetic devices, communication is easier and faster. 4. All of the things we used in school, home and work depend on electromagnet.
G.Finding Parctical application of concepts and skills in daily living		c. Why are electromagnets very important?	Francis, the operator of a machine has to increase the strength of the	You are playing with your Tamiya toy car, you noticed that it runs	As a student, can you cite a specific example that shows

		d. How are electromagnets used in communication?	electromagnet of his machine, what should he do?	so slowly. You have found out that it is running out of battery. What should you do to increase the strength of the rechargeable battery?	the importance of electromagnet in your life?
H.Making generalization and abstraction about the lesson		d. What is an electromagnet? e. How can you construct an electromagnet?	What factors can affect the strength of an electromagnet?	What factors affect the strength of an electromagnet?	What are the importance of electromagnet in our daily lives?
I.Evaluating learning		Direction: The following are the steps in constructing an electromagnet. Arrange them in correct order by numbering 1-5. ________A. Bring the electromagnet near the pins. Count the number of pins attracted to it. ________B. Using a cutter, uncoat the electrical wires and get the copper inside it. ________C. Make ten turns of the copper wire around the nail. ________D. Disconnect one end of the copper wire to the source of electricity. Then bring the magnet near the pins. ________E. Connect both ends of the copper wire to the negative and positive terminals of the dry cell.	Direction: Read the statement then write True if the statement is correct and False if it is wrong. 1. Electromagnet is made up of an iron core, copper wire and source of electricity. 2. Electromagnet is a permanent magnet. 3. Large number of closely spaced turns of wire creates the magnetic field. 4. The number of batteries may affect the strength of electromagnet. 5. Electromagnet can be made stronger.	Direction: Read the situation below. Answer the question. Choose the letter of the correct answer. 1. Which is an example of a temporary magnet? A. bar magnet C. horseshoe magnet B. electromagnet D. magnetite 2. Which can increase the strength of an electromagnet? A. increasing the number of batteries and coils around the nail B. Increasing the number of batteries or coils around the nail C. decreasing the number of batteries or coils around the nail D. Decreasing the number of batteries or coils around the nail 3. The following statements are not true about electromagnet, EXCEPTone. A. The smaller the size of the battery, the stronger is the electromagnet is. B. The bigger the size of the soft-iron core is, the weaker the electromagnet is. C. The greater the number of batteries, the weaker the electromagnet is. D. The greater the number of batteries, the stronger the electromagnet is. 4. Which is TRUE about electromagnets? A. They are permanent. B. They don’t need a battery.	Direction: Select the sentences that show the importance of electromagnet in our daily lives A. Electromagnets are used in generators, electric motors and transformers. B. These are also used in lifting and dropping heavy objects like cars in junkyards, and lifting magnets levitation trains to enable them to move extremely fast and energy efficient. C. We should always conserve electricity. D. MRI or magnetic resonance imaging uses magnetic fields to create an image inside the body. E. Wire is used in making an electromagnet.

				C. Increasing the battery makes the electromagnet weaker. D. Increasing the number of coils makes the electromagnet stronger.	
J.additional activities for application or remediation		Draw a diagram of an electromagnet. Below,write the steps on how to construct it.	Design your own experiment to determine the factors that affect the strength of an electromagnet. Write this on a piece of short coupon bond.	Compose a simple jingle focusing on the factors that affect the strength of an electromagnet.	Research on the other importance of electromagnet in our daily lives. List down specific examples.
V.REMARKS					
VI.REFLECTION					
A.No. of learners who earned 80% in the evaluation	___Lesson carried. Move on to the next objective. ___Lesson not carried. _____% of the pupils got 80% mastery	___Lesson carried. Move on to the next objective. ___Lesson not carried. _____% of the pupils got 80% mastery	___Lesson carried. Move on to the next objective. ___Lesson not carried. _____% of the pupils got 80% mastery	___Lesson carried. Move on to the next objective. ___Lesson not carried. _____% of the pupils got 80% mastery	___Lesson carried. Move on to the next objective. ___Lesson not carried. _____% of the pupils got 80% mastery
B.No.of learners who require additional activities for remediation	___Pupils did not find difficulties in answering their lesson. ___Pupils found difficulties in answering their lesson. ___Pupils did not enjoy the lesson because of lack of knowledge, skills and interest about the lesson. ___Pupils were interested on the lesson, despite of some difficulties encountered in answering the questions asked by the teacher. ___Pupils mastered the lesson despite of limited resources used by the teacher. ___Majority of the pupils finished their work on time. ___Some pupils did not finish their work on time due to unnecessary behavior.	___Pupils did not find difficulties in answering their lesson. ___Pupils found difficulties in answering their lesson. ___Pupils did not enjoy the lesson because of lack of knowledge, skills and interest about the lesson. ___Pupils were interested on the lesson, despite of some difficulties encountered in answering the questions asked by the teacher. ___Pupils mastered the lesson despite of limited resources used by the teacher. ___Majority of the pupils finished their work on time. ___Some pupils did not finish their work on time due to unnecessary behavior.	___Pupils did not find difficulties in answering their lesson. ___Pupils found difficulties in answering their lesson. ___Pupils did not enjoy the lesson because of lack of knowledge, skills and interest about the lesson. ___Pupils were interested on the lesson, despite of some difficulties encountered in answering the questions asked by the teacher. ___Pupils mastered the lesson despite of limited resources used by the teacher. ___Majority of the pupils finished their work on time. ___Some pupils did not finish their work on time due to unnecessary behavior.	___Pupils did not find difficulties in answering their lesson. ___Pupils found difficulties in answering their lesson. ___Pupils did not enjoy the lesson because of lack of knowledge, skills and interest about the lesson. ___Pupils were interested on the lesson, despite of some difficulties encountered in answering the questions asked by the teacher. ___Pupils mastered the lesson despite of limited resources used by the teacher. ___Majority of the pupils finished their work on time. ___Some pupils did not finish their work on time due to unnecessary behavior.	___Pupils did not find difficulties in answering their lesson. ___Pupils found difficulties in answering their lesson. ___Pupils did not enjoy the lesson because of lack of knowledge, skills and interest about the lesson. ___Pupils were interested on the lesson, despite of some difficulties encountered in answering the questions asked by the teacher. ___Pupils mastered the lesson despite of limited resources used by the teacher. ___Majority of the pupils finished their work on time. ___Some pupils did not finish their work on time due to unnecessary behavior.
C.Did the remedial work? No.of learners who have caught up with the lesson	___ 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
D.No. of learners who continue to require 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	___ of Learners who require additional activities for remediation

E.Which of my teaching strategies worked well? Why did these work?	___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
F.What difficulties did I encounter which my principal or supervisor can helpme solve?	___ 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
G.What innovation or localized materials did used/discover which I wish to share with other teachers?	*Strategies used that work well:* **___Metacognitive Development**: **Examples:** Self assessments, note taking and studying techniques, and vocabulary assignments. **___Bridging**: **Examples:** Think-pair-share, quick-writes, and anticipatory charts. **___Schema-Building**: **Examples:** Compare and contrast, jigsaw learning, peer teaching, and projects. **___Contextualization**: **Examples:** Demonstrations, media, manipulatives, repetition, and local opportunities. **___Text Representation**: **Examples:** Student created drawings, videos, and games. **___Modeling**: **Examples:** Speaking slowly and clearly, modeling the language you want students to use, and providing samples of student work. ***Other Techniques and Strategies used:*** ___ *Explicit Teaching* ___ Group collaboration ___Gamification/Learning throuh play ___ Answering preliminary activities/exercises ___ Carousel ___ Diads ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method	*Strategies used that work well:* **___Metacognitive Development**: **Examples:** Self assessments, note taking and studying techniques, and vocabulary assignments. **___Bridging**: **Examples:** Think-pair-share, quick-writes, and anticipatory charts. **___Schema-Building**: **Examples:** Compare and contrast, jigsaw learning, peer teaching, and projects. **___Contextualization**: **Examples:** Demonstrations, media, manipulatives, repetition, and local opportunities. **___Text Representation**: **Examples:** Student created drawings, videos, and games. **___Modeling**: **Examples:** Speaking slowly and clearly, modeling the language you want students to use, and providing samples of student work. ***Other Techniques and Strategies used:*** ___ *Explicit Teaching* ___ Group collaboration ___Gamification/Learning throuh play ___ Answering preliminary activities/exercises ___ Carousel ___ Diads ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method ***Why?***	*Strategies used that work well:* **___Metacognitive Development**: **Examples:** Self assessments, note taking and studying techniques, and vocabulary assignments. **___Bridging**: **Examples:** Think-pair-share, quick-writes, and anticipatory charts. **___Schema-Building**: **Examples:** Compare and contrast, jigsaw learning, peer teaching, and projects. **___Contextualization**: **Examples:** Demonstrations, media, manipulatives, repetition, and local opportunities. **___Text Representation**: **Examples:** Student created drawings, videos, and games. **___Modeling**: **Examples:** Speaking slowly and clearly, modeling the language you want students to use, and providing samples of student work. ***Other Techniques and Strategies used:*** ___ *Explicit Teaching* ___ Group collaboration ___Gamification/Learning throuh play ___ Answering preliminary activities/exercises ___ Carousel ___ Diads ___ Differentiated Instruction ___ Role Playing/Drama	*Strategies used that work well:* **___Metacognitive Development**: **Examples:** Self assessments, note taking and studying techniques, and vocabulary assignments. **___Bridging**: **Examples:** Think-pair-share, quick-writes, and anticipatory charts. **___Schema-Building**: **Examples:**Compare and contrast, jigsaw learning, peer teaching, and projects. **___Contextualization**: **Examples:** Demonstrations, media, manipulatives, repetition, and local opportunities. **___Text Representation**: **Examples:** Student created drawings, videos, and games. **___Modeling**: **Examples:** Speaking slowly and clearly, modeling the language you want students to use, and providing samples of student work. ***Other Techniques and Strategies used:*** ___ *Explicit Teaching* ___ Group collaboration ___Gamification/Learning throuh play ___ Answering preliminary activities/exercises ___ Carousel ___ Diads ___ Differentiated Instruction	*Strategies used that work well:* **___Metacognitive Development**: **Examples:** Self assessments, note taking and studying techniques, and vocabulary assignments. **___Bridging**: **Examples:** Think-pair-share, quick-writes, and anticipatory charts. **___Schema-Building**: **Examples:** Compare and contrast, jigsaw learning, peer teaching, and projects. **___Contextualization**: **Examples:** Demonstrations, media, manipulatives, repetition, and local opportunities. **___Text Representation**: **Examples:** Student created drawings, videos, and games. **___Modeling**: **Examples:** Speaking slowly and clearly, modeling the language you want students to use, and providing samples of student work. ***Other Techniques and Strategies used:*** ___ *Explicit Teaching* ___ Group collaboration ___Gamification/Learning throuh play ___ Answering preliminary activities/exercises

	___ Lecture Method ***Why?*** ___ Complete IMs ___ Availability of Materials ___ Pupils’ eagerness to learn ___ Group member’s collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	___ Complete IMs ___ Availability of Materials ___ Pupils’ eagerness to learn ___ Group member’s collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	___ Discovery Method ___ Lecture Method ***Why?*** ___ Complete IMs ___ Availability of Materials ___ Pupils’ eagerness to learn ___ Group member’s collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	___ Role Playing/Drama ___ Discovery Method ___ Lecture Method ***Why?*** ___ Complete IMs ___ Availability of Materials ___ Pupils’ eagerness to learn ___ Group member’s collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	___ Carousel ___ Diads ___ Differentiated Instruction ___ Role Playing/Drama ___ Discovery Method ___ Lecture Method ***Why?*** ___ Complete IMs ___ Availability of Materials ___ Pupils’ eagerness to learn ___ Group member’s collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson