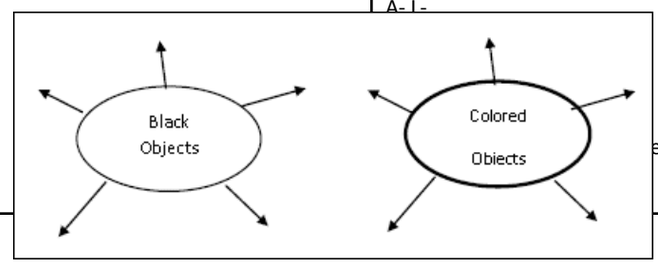
GRADES 1 to 12 DAILY LESSON LOG	School:	Visit DepEdResources.com for More	Grade Level:	V
	Teacher:	File created by Ma'am EDNALYN D. MACARAIG	Learning Area:	SCIENCE
	Teaching Dates and Time:	FEBRUARY 19 – 23, 2024 (WEEK 4)	Quarter:	3RD QUARTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I.OBJECTIVES					
A.Content Standards	The learners demonstrate understanding on how black and colored objects affect the ability to absorb heat.				
B.Performance Standards	The learners should be able to perform the activities sensibly.				
C.Learning Competencies/Objectives	The learner should be able to describe the characteristics of black and colored objects. S5FE-IIId-4	The learner should be able to classify objects as to black and colored objects. S5FE-IIId-4	The learner should be able to infer how black and colored objects affect the ability to absorb heat. S5FE-IIId-4	The learner should be able to investigate how black and colored objects affect the ability to absorb heat. S5FE-IIId-4	To conduct summative test
II.CONTENT	Effects of Light and Sound, Heat and Electricity	Effects of Light and Sound, Heat and Electricity	Effects of Light and Sound, Heat and Electricity	Effects of Light and Sound, Heat and Electricity	Summative Test
III.LEARNING RESOURCES					
A.References					
1.Teacher's Guide pages	CG p.	CG p.	CG p.	CG p.	
2.Learners's Materials pages					
3.Textbook pages					
4.Additional materials from learning resource (LR) portal	https://www.reference.com/science/list-black-things http://www.slideshare.net/lhoralight/k-to-12-grade-4-learners-material- in-science-q1q4 www.teachengineering.org	https://www.reference.com/science/list-black-things http://mentalfloss.com/article/50506/why-do-black-shirts-get-hot-sun	http://www.slideshare.net/lhoralight/k-to-12-grade-4-learners-material-in- science-q1q4 www.teachengineering.org https://www.youtube.com/watch?v=u3ttUCeKL9k	http://www.slideshare.net/lhoralight/k-to-12-grade-4-learners-material-in-science-q1q4 www.teachengineering.org https://www.youtube.com/watch?v=2KX8-7EFiiM	
B.Other Learning Resource					
IV.PROCEDURES					
A.Reviewing previous lesson or presenting the new lesson	Direction: Give an example of a good conductor. For every correct answer, the pupil may open a covered letter to reveal and guess the mystery word. C O N D U C T O R "Why are conductors important?"	Fact or Bluff Direction: Write Fact if the statement if correct and Bluff if not. _____1. A black object looks black because it absorbs all the wavelengths in white light. (Fact) _____2. Colors are all equally heat absorbent. (Bluff) _____3. Color is a result of the wavelength of light reflected by that object. (Fact) _____4. A black fabric absorbs all colors of light. (Fact) _____5. Lighter colors are more	Word Splash: Let the pupils write words related to black objects and colored objects. Use the graphic organizer below.  	Game: Write examples of common black and colored objects to complete the meaning of the acronym for BLACK and COLORED words. B- C- L- O- A- L- en)	Review previous lesson

		absorbent than darker ones. (Bluff)		(can, owl, leaf, orange, roof, eggplant, dress) 	
B.Establishing a purpose for the lesson	Group yourselves according to your favorite color. Why is that your favorite color?	What makes an object appear more attractive than the rest? (Its color…) Today, you are going to brainstorm on the colors of objects and classify them as to black or colored.	Imagine that it is 100 degrees Celsius outside. How do you stay cool? What kinds of clothing do you wear? Any thought to color? (Listen to pupils' ideas.) Original File Submitted and Formatted by DepEd Club Member - visit depedclub.com for more	Look at the picture and describe it. (They are the workers that install the roof of the building.) What is the color of the roof do they use? Why do you think they prefer to use a white roof? (They use white color to reduce the amount of heat energy required to keep the inside building temperature...To prevent the building get hot.)	Week 4 Day 5 Lesson 20: Summative Test Number 2 I. Directions: Read each question carefully. Write only the letter of the correct answer. 1. Which of the following DOES NOT belong to the group? A. aluminum C. copper B. plastic D. iron 2. Some materials which allow an electric current to flow through them are called _____ of electricity. A. insulators C. conductors B. convectors D. radiators 3. Materials that block an electric current from flowing are called _____. A. insulators C. conductors B. convectors D. radiators 4. Why are electric wire usually made up of copper? A. Because copper is a good insulator. B. Because copper is a good conductor. C. Because copper is a poor insulator. D. Because copper is a poor conductor. 5. Which is the best conductor of electricity? A. aluminum C. gold B. copper D. silver 6. Which of the following is an
C.Presenting Examples/ instances of the new lesson	Approach: Inquiry-Based Approach Strategy: Cyclic Inquiry Model and the Practical Inquiry Model Suggested Activity: The AIDR Activity (Ask, Investigate, Create, Discuss, Reflect) Group Activity: "How Do I Get My Color?" V. Problem: What are the characteristics of colored objects? VI. Materials: 3 pieces of colored cellophane (red, blue, green) 3 flashlights,4 pieces of construction paper (white, red, blue, green VII. Procedures 4. Cover the head of each flashlight with cellophane. 5. Turn on the flashlights and point them at the white paper. 3. Then point the flashlight with the other paper. Red light – green paper Green light – blue paper Blue light – red paper	Approach: Collaborative Strategy: Jigsaw Method Suggested Activity: TDAR (Think, Discuss, Act, Reflect) Group Activity: "Imagine My Color" M. Problem: What objects are black and colored? II. Materials: Chart, Activity sheet III. Procedure 1. Study the list of objects in the chart. 2. Discuss with your group members their usual or common color. 3. Record your answer on the table. 4. Data and Observation Questions 1. Which objects are black?_____ _____ 2. Which objects are colored?_____ _____	Approach: Inquiry-Based Approach Strategy: Cyclic Inquiry Model and the Practical Inquiry Model Suggested Activity: The AIDR Activity (Ask, Investigate, Create, Discuss, Reflect) Group Activity: "Team Black and Colored vs Team White" I. Problem: How do black and colored objects affect the ability to absorb heat? II. Materials: 2 identical glasses, water, black construction paper, white construction paper, tape, thermometer, a sunny day III. Procedure 1. Find two identical glasses. 2. Cut black construction paper to the same height as one of the glasses. 3. Wrap the black construction paper around the glass so it covers the entire outside surface as well as the top.	Approach: Inquiry-Based Approach Strategy: Cyclic Inquiry Model and the Practical Inquiry Model Suggested Activity: The AIDR Activity (Ask, Investigate, Create, Discuss, Reflect) Group Activity: "Melting Race Under the Heat of the Sun" I. Problem: How do black and colored objects affect the ability to absorb heat? II. Materials: Colored paper 4 sheets per group (white, yellow, red, black), Newspaper, Scissors, Clear tape, 4 ice cubes per group, Sunny day or a heat lamp/alcohol lamp III.Procedure 1. Prepare four sheets of colored paper (white, yellow, red, black), cut and fold the sheets into boxes. 2. Hand out newspaper and spread the newspaper in an exposed, sunny place outside, or under a heat lamp. 3. On the newspaper, place the boxes	

	4. Repeat step 2 and use the 3 different colors together. VIII. Data and Observation Questions 1. What colors do you see?_____ 2. What happens when you looked at the papers through the different colored cellophane?_____ _ 3. What color is formed when you combined all the three colors? _____ _____ 4. What color of light beams did you combine to produce a white light?_____ _____ V. Conclusion: I therefore conclude that _____		4. Tape the paper in place around the glass to hold the paper in place. 5. Repeat steps 2-4 with the second glass with the white construction paper. 6. Fill both glasses with water. Make sure they have the same amount of water in them, and make sure you use the same temperature of water in both glasses. 7. Take the temperature of the water in each glass and write down the starting or initial temperature. 8. Place both glasses outside in the sun.	side by side with the opening facing away from the sunlight so pupils can see inside. 4. Get four ice cubes and place one ice cube in the center of each colored box. 5. Let the ice cubes sit in the sun until they have melted. Check them every few minutes and record which ice cubes melted first, second, third and fourth. 6. Record your data in the worksheet chart.	insulator? A. iron C. water B. rubber D. aluminum 7. The main reason for using aluminum to make cooking pans is because: A. It is a good conductor of heat. B. It is a good conductor of electricity. C. It has a very high density. D. It is very strong. 8. You can protect yourself from the harmful effects of conductors by using _____. A. conductors C. convectors B. insulators D. radiators 9. Which of the following materials are good conductors of heat? A. ceramic cups, disposable glass, silver B. iron nail, silver, copper C. glass, cloth, paper D. aluminum, plastic, rubber 10. Which among the following materials is useful in cooking food? A. ceramic mug C. aluminum casserole B. metal spoon D. plastic cup 11. Why is electrical wiring usually covered with a layer of plastic? A. To help electricity flow along the wire B. To make it look better C. To save electricity D. To make it safe 12. What colors are reflected when an object appears black? A. none C. red and blue B. all colors D. black 13. Which object would absorb the most light and heat? A. black shirt C. green leaf B. red apple D. white car 14. Which object would reflect the most light? A. black shirt C. green leaf B. red apple D. white car 15. If red and green lights are shining on a red apple, what
D.Discussing new concepts and practicing new skills #1	4. Group reporting 5. Sharing of results of the activity.	1. Group reporting 2. Sharing of results of the activity.	1. Group reporting 2. Sharing of results of the activity.	1. Group reporting 2. Sharing of results of the activity.	
E.Discussing new concepts and practicing new skills #2	Who among you have been to a Safari? Would you like to go on a Safari? Come on and watch this interactive song video and identify the black and colored objects found in there. (https://www.youtube.com/watch?v=8mLRmZmR3vM) “Color Songs - Let's Spell Black”	Discussing new concepts and practicing new skills #2 1. Answer these questions: Why do objects appear black? Why do objects appear colored?	Watch this video clip to find out how black and colored objects absorb heat (https://www.youtube.com/watch?v=u3ttUCeKL9k) Answer these questions: 1. What is the effect of black and colored objects to heat absorption? 2. What is the effect of white objects to heat absorption?	Watch this video clip to find out how black and colored objects absorb and lose heat. (https://www.youtube.com/watch?v=_SiSDcN9TBE) “Thermoscope - Experiment to prove that black substances absorb heat faster – Science” Answer these questions: 1. Which tin can has higher temperature? Why? 2. Which tin can has lower temperature? Why?	
F.Developing Mastery	What black objects are found in a Safari? What are their characteristics?	Complete the color wheel with examples of objects represented by each color in the color wheel and black whee	What might be the influence of color and its relationship to heat? Can you think of any instances in which the color of something makes a difference in how hot it gets in the sun? Listen to student ideas. Possibilities: Wearing white vs. black clothing on superhot days. Flat rooftops sealed in black tar vs.	How does the color of an object affect the ability to absorb heat? Debate on the reason why ice chest or Styrofoam are always in color white and not in black.	

			white polymer material.		happens to the red and green lights? A. Both are absorbed. B. Both are reflected. C. Red is reflected and green is absorbed. D. Green is reflected and red is absorbed. 16. When objects absorb light, the energy that was once travelling through the wave is absorbed into the object and converted to heat, causing the temperature of the object to _____. A. fall C. stay the same B. rise D. keep still 17. White absorbs all colors while black reflects all colors. A. True C. False B. Maybe D. Not at all 18. Black and colored objects absorb _____ than white ones. A. less heat C. the same amount of heat B. more heat D. no heat 19. During hot or summer days, people must wear _____. A. white or light-colored clothes C. black clothes B. dark-colored clothes D. any color of clothes 20. Which set of objects are usually black and are more absorbent of heat? A. carbon paper, roof, bag C. coal, tires, iron, magnet B. hair, laptop, clothes D. flower, paper, vase II. Write BCO if the phrases pertain to the ability and effects of black and colored objects in heat absorption and WO for those of white objects. _____21. Absorb more heat _____22. Absorb less heat _____23. Get warmer more quickly in the sunlight _____24. Remain cooler to
G.Finding Parctical application of concepts and skills in daily living	What insight have you learned about the importance of colors in our environment?	You've just classified the black objects from colored objects. During summer or hot days, what color of shirt is more advisable to use? Which makes you feel better? Why?	You've just found out how black and colored objects affect the absorption of heat. If you live where it is sunny and hot all the time, what car will you use, a white one or a black one? Why?	You've just investigated how black and colored objects affect the absorption of heat. Which color would be the best help to keep the ice cubes from melting too quickly in the sun?	
H.Making generalization and abstraction about the lesson	What did you learn today? What are the characteristics of black and colored objects?	What did you learn today? What are the common black and colored objects that we usually encounter?	What did you learn today? How does black or colored object affect the ability to absorb it?	What did you learn today? How does black or colored object affect the ability to absorb heat?	
I.Evaluating learning	Write a short paragraph about the description of light	Directions: Write C if the object is colored and B if black. _____1. Penguin _____2. Sun _____3. Plant _____4. Charcoal _____5. Lemon	Directions: Write AGREE if the statement is true and DISAGREE if false. _____1. A white car absorbs more heat than a black car. _____2. Lighter colors reflect more of the sun's radiant energy. _____3. Darker colors absorb more sunlight than lighter colors. _____4. A black T-shirt gets cooler than a colored one. _____5. Water in a colored glass will have a lower temperature.	Directions: Group the following phrases related to heat absorption ability of black and colored objects or of white objects. Phrases: · Remain cooler to touch in the sunlight · Get warmer more quickly in the sunlight · Absorb more heat · Absorb less heat · Dry slower under the sun · Dry faster under the sun	
J.additional activities for application or remediation	Make a concept map on characteristics and examples of black and colored objects.	Make an inventory list of black and colored materials found in the community.	Draw at least 5 black objects that absorb more heat and 5 colored objects that absorb less heat.	Illustrate the effect of walking barefooted across a black asphalt roadway versus walking across a lighter concrete roadway.	

					touch in the sunlight __________25. Dry slower under the sun __________26. Dry faster under the sun __________27. Tend to have higher temperature __________28. Tend to have lower temperature __________29. Keep the ice from melting __________30. Make melting process faster
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	
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.	
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	
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	
E.Which of my teaching strategies worked well? Why did these work?	___Yes ___No	___Yes ___No	___Yes ___No	___Yes ___No	

	____ of Learners who caught up the lesson	____ of Learners who caught up the lesson	____ of Learners who caught up the lesson	____ 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	
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 ___ 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 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	___ Complete IMs ___ Availability of Materials ___ Pupils' eagerness to learn ___ Group member's collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	___ Pupils' eagerness to learn ___ Group member's collaboration/cooperation in doing their tasks ___ Audio Visual Presentation of the lesson	***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	***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	___ 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