

Science (4-Day)

Extra Activity Sheets

by The Sonlight Team

“The fear of the Lord is the beginning of knowledge, But fools despise wisdom and instruction.”

Proverbs 1:7 (NKJV)



4-DAY PROGRAM

ESG41 Science E “Electricity, Magnetism, and Astronomy”
Student Activity Sheets (2018)

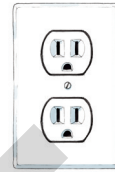


Electricity and Magnetism

1. What form of electricity do we use? (p. 3)

current electricity

static electricity

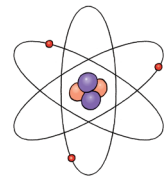


2. What type of electricity is found naturally? Give two examples. (p. 3)





3. List seven forms of energy. (p. 4)



4. Name two ways we produce electricity. (p. 4)

5. What is energy measured in? (p. 4)

☐

watts

☐

joules

☐

grams

☐

degrees



Science E: Week 1 Activity Sheet

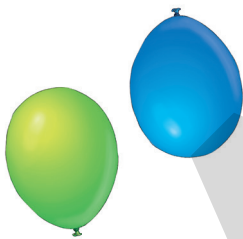
6. What are two problems with using fossil fuels? (p. 5)



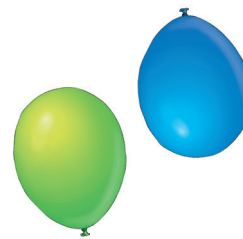
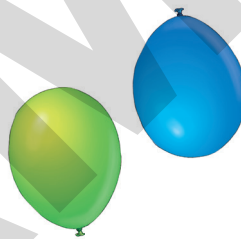
7. List five alternative energy sources. (p. 5)

8. Add (+) and (-) signs to the balloons below. Give one example of charges that attract and at least one example of charges that repel. (p. 6)

Attract



Repel



9. What causes static electricity? (p. 6)

10. Does more static electricity build up in a dry or damp climate? Circle the correct answer. (p. 6)

dry

damp



11. Why are we generally unaware of electrical charges? (p. 7) _____

12. A positive ion has more _____ than _____. (p. 7)



13. A negative ion has more _____ than _____. (p. 7)





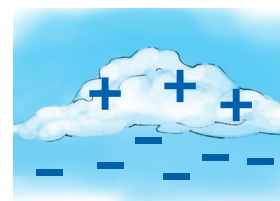
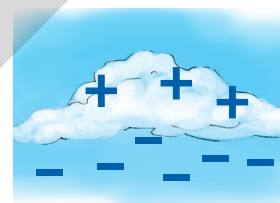
Electricity and Magnetism

1. Talk it out then write it down: Explain your answer verbally to Mom or Dad, then write it below.

Could lightning be used as a power source? Why or why not? (p. 8)



2. Please find Cut-Out #1 in the appendix. Put the steps in order of what causes lightning below, but check your answer with Mom or Dad before gluing them down! Then, use this sheet to help you explain it to someone who doesn't know. (p. 8)



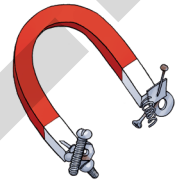


Science E: Week 2 Activity Sheet

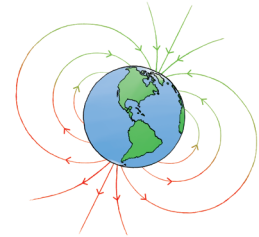
3. Lightning conductors cause lightning... (Circle the correct letter) (p. 9)
- a. to strike in a safe spot so it becomes harmless to nearby structures
 - b. to be neutralized by sending out positive charges to join with the negative charges in the cloud
 - c. to be neutralized by sending out negative charges to repel negative charges in the cloud
 - d. to be neutralized by getting rid of all the charges in the cloud

4. Where is a magnet's charge strongest? (p. 10) _____

5. How can you tell if something can be magnetized? (p. 11) _____



6. List characteristics of a magnetic substance. (p. 10) _____



7. Talk it out, then write it down: Explain your answer verbally to Mom or Dad, then write it below.

What do scientists believe causes magnetism? Be sure to include the terms "domain" and "force" in your explanation.

Draw a picture to help you explain. (p. 11)

