

Guiding Questions

You will work in five groups, with each group having its own assignment. Each group will answer the same set of questions, and then share their responses with the whole group.

Assignments

Group A Chemical and Physical Changes: Read page 52 second paragraph through end of page 57. [Extra credit: read page 58 and the first three lines of page 59]

Group B Static and Current Electricity: Read page 67 “Stronger Than Gravity” through end of page 70. Then watch DVD Static Electricity section (in Physical Science).

Group C Magnetism: Examine chart on page 73. Read from top of page 81 through end of page 83. Set up a suspended paper clip and test different materials for their effect on the force field between the paper clip and the suspended cow magnet.

Group D Electromagnetism: Do the activity on last paragraph page 73 and first paragraph page 74. [Observe how a bare wire connected to two ends of a D-cell battery interacts with magnets.] Read about the Stripped Down Generator (rest of page 74 until new section bottom of page 75). Experiment with the provided Stripped Down Generator and explain different observations with a single red LED compared with dual green-red LED. Read the section “Electromagnetism Is the Glue Of Matter.”

Group E Traits and Survival Advantage: Read pages 194-199.

Guiding Questions for Each Group:

What stood out for you as one or more Big Ideas?

What do students need to know about this topic according to the CORE, and is that covered?

Do these materials go beyond required student knowledge?

What teacher knowledge do these materials provide or reinforce?

What skills/strategies did you use in making sense of the reading?

Why do we want students to know this topic (besides the fact that it is in the Core)?

What problems do students have in understanding this topic?

How do you address the problems that students encounter with this topic?

Do you have any questions?