Third Grading: FORCE AND MOTION

CHAPTER 3- Electricity and Magnetism

Lesson _ : Electromagnet

I. Objectives

1. Identify materials that make up an electromagnet.
2. Describe the function of each material that make up an electromagnet.
3. Infer that electricity can be used to produce magnet.
4. Construct an electromagnet

A. Materials specified in the LM

Activity 1- How to construct an electromagnet?

Activity 2- What are the function of each part of an electromagnet?

Diagram of an electromagnet, chart of an important concepts, manila paper

B .References

CG –S5FE-IIIh-8

The Wonderful Word of Science 5 pp.168-170

Reading in Science 5 p.178

Science Works 5 p.178

Science 5 Toward A Healthy And Progressive Environment pp.235-236

C .Process Skills

Observing ,describing ,inferring ,manipulating

D. Values Integration

Cooperation in performing the group activity

Conserving electricity

III. Learning Task

Day 1

A. Engagement

Group the class into 4.The secretary of each group will get from me the envelop that contains a jigsaw puzzle. Each group will have 2 minutes to form the puzzle. The first group to finish will be the winner. Somebody from the group will describe it.

Guide Questions:
1. What is formed from the jigsaw puzzle? Tamiya toy car
2. Who among you have Tamiya toy car?
3.What makes it move?

B. Exploration

1. Recall of standards in performing an activity.

2. Ask pupils to perform Lesson_ LM. Activity 1- How to construct an electromagnet?

3. Supervise the pupils while performing the activity and give assistance whenever needed?

C .Explanation

1.Allow the pupils to present their output

Day 2

A. Engagement

1.Do routine activities.

2.Recall of concepts learned from the previous activities.

B. Exploration

1.Give specific instructions to the pupils (as stated in the LM Activity 2)

2. Monitor the pupils while they are performing the activity.

3.Presentation of outputs

Day 3

C. Explanation

Ask the pupils to present the result of the activity and answer the guide questions.

1. How do you find your activity?

2. What materials did you use in the activity?

3. Did you use the materials ? How do you use them?

4.When does an electromagnet behave like a magnet?

5. What is an electromagnet?

6. Why does electromagnet can attract pins if there is an electricity?

7.What happened to your electromagnet if you disconnect the wire?

8.What are the function of each part of an electromagnet?

Background Information for teachers:

An electric motor is a device that uses electricity to make objects move. Electric motors

make home devices like refrigerator and washers operate. Automobiles use electric motors in the starter and heater fan.

Other devices such as vacuum cleaners, mixers and electric drills make use of motors operating

on electricity.

Some mechanical toys such as robots and cars have motors wired to batteries for them to move.

electric motors use electromagnets to change electricity into motion.

While some materials are natural magnets such as magnetite, a type of iron ore,some materials

can become magnetic when they are rubbed with a magnet. An iron nail become a weak magnet when

rubbed with a magnet. However, its magnetism does not stay for long.

Electricity can also be used to make a magnet. Electromagnets are useful because their magnetism can be turned on and off by turning the electric current on and off.

Day 4

D. Elaboration / Extension

1.What have you learned from the different activities that we have performed?

2.Let the learners perform another activity as an application of the concepts learned.

Have each group work on the following activities:

Group 1- poem

Group 2- rap

Group 3- song

Group 4- yell

Group 5- story telling

Present your output creatively.

E. Evaluation (Day 5)

A. Draw and label the parts of an electromagnet.

Use rubric for scoring this evaluation.

Criteria	5	3	1
Accuracy	The drawing (electromagnet) has complete parts and labelled correctly.	The drawing (electromagnet) has complete parts but not labelled correctly.	The drawing (electromagnet)has Incomplete parts and not labelled correctly.
Neatness	The drawing is exceptionally attractive in terms of design, layout, and neatness.	The drawing is attractive in terms of design,layout, and neatness .	The drawing is acceptably attractive though it may be a bit messy.

B. Write TRUE if the underlined word is correct. If it is FALSE write the correct answer. Write your answer on the blank.

----------1. Electromagnet is a permanent magnet.

----------2. Magnetic force may also be produced by ordinary electric current.

----------3. Coil of wire is the source of electricity.

----------4. An electromagnet works only when there is a flow of gas through the coil of wire.

----------5. It is made up of an iron core, copper wire and source of electricity.

IV. Assignment

Design a toy moved by an electromagnet or a dynamo.