higher education & training
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Tshwane South TVET College
"achieve the future"

SUBJECT: FOUNDATIONAL SCIENCE

LEVEL: PLP

MODULE/CHAPTER NO: MODULE 3

UNIT 4.2 ELECTRICITY AND MAGNETISM

UNIT 4.2 ELECTRICITY AND MAGNETISM

After completing this topic, you will be able to:

1. Define magnetism
2. Distinguish between the three different types of magnets
3. Know the properties of magnets
4. Identify the similarities between electricity and magnetism

UNIT 4.2 ELECTRICITY AND MAGNETISM

Activity 4.4 Magnetism (Classwork or homework)

	**Individual activity. You can ask for help but it must be your own work.**

1. Write down the definition of magnetism.
2. Give the definition of a permanent magnet.
3. Give the definition of a non-permanent magnet.
4. Give the definition of an electromagnet
5. From the word(s) in brackets choose the one that will make the statement true:
   - 5.1 A (permanent / temporary) magnet is made from hard metal alloys.
   - 5.2 (Alnico / iron) can be used for a permanent magnet.
   - 5.3 Non-permanent metals are made from (soft / hard) metals.
   - 5.4 Non-permanent metals stay magnetized for a (long / short) time.
6. Make a diagram of the magnetic field around a bar magnet.
7. Make a diagram of the magnetic field between two bar magnets with opposite poles facing each other.
8. Make a diagram of the magnetic field between two bar magnets with like poles facing each other.
9. Make a diagram of the magnetic field around a horseshoe magnet.

SOLUTIONS

Activity 4.4

1. A force that is produced by the motion of electric charge, which results in attractive and repulsive forces between objects.
2. A magnet that retains its magnetic properties
3. A temporary magnet is a magnet that remains magnetized for only a short time.

4. A piece soft metal surrounded by a coil of wire through which an electric current is passed to magnetize the metal inside.

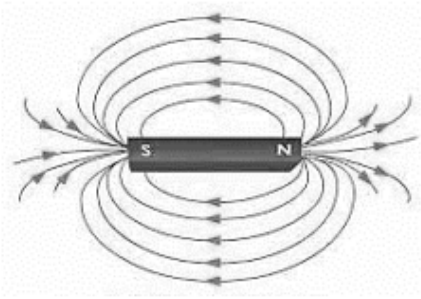
5.1 permanent

5.2 Alnico

5.3 Soft

5.4 short

6.



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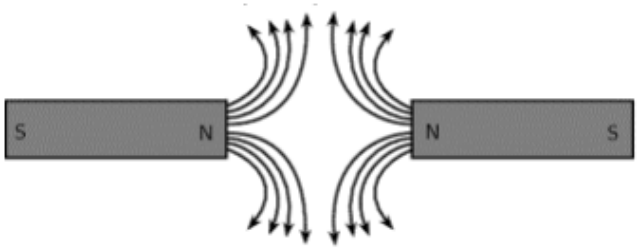

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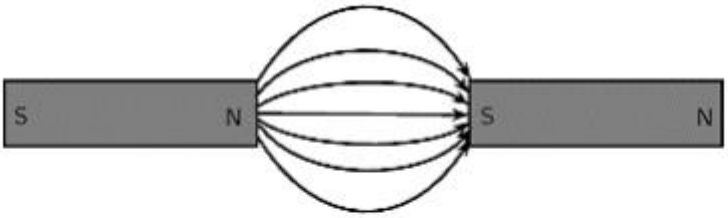

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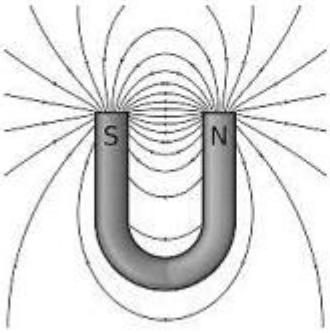

10. Student's own experiment.