

Ponder (E&M) in Portage County or Flash-Back Knowledge with Mr. Flasch

What do you know currently about magnetism – insights – flashbacks:

1. What does E&M mean?

Electromagnetism
Electricity

2. Why are they always put together?

You cannot have an electron moving with a magnetic field and vice versa

3. What is Electromagnetic Radiation? Name six of them? What do they have in common? How are they different?

Electromagnetic Radiation is

1. Transmissions 2. radio 3. visible light 4. ultraviolet 5. x-rays 6. gamma rays

What the above have in common is

$$v = c = 186,000 \text{ MPS}$$

How the above differ is

$$v = f\lambda$$

4. What is ironic about that fact that this unit is almost entirely conceptual?

Math is beyond Calc. I

5. What causes a natural magnet to be a magnetic?

The electrons spin and orbiting nucleus

6. What is a magnetic domain?



7. One can have an object positively or negatively charged but can one have just a north pole or just a south pole?

NO

Dipole

8. Of the four fundamental forces how are gravity and E&M different from the strong and weak forces?

Which is a stronger force, gravity or E&M?

Why doesn't E&M work over long distances but gravity does?

direction vector so can cancel → one direction force vector

9. Name six places one can find a magnet outside of school:

1.

2.

3.

4.

5.

6.

