

Name: _____

Date: _____



GENIUSCHALLENGE

ELECTRIC AND MAGNETIC FIELDS

1. Fields allow some objects to exert forces on each other even when they are not _____.
2. Gravitational, _____, and _____ are three examples of fields.
3. The north pole of one magnet is always attracted to the _____ pole of another magnet.
4. Positive electric charges are always attracted to _____ charges.
5. List two metals that are attracted by magnets.
 - a. _____
 - b. _____
6. What happens to the force between two magnets as the magnets come closer together?

7. Describe how an electric field is generated.

8. Describe one way you can increase the strength of an electromagnet.

9. What would happen to the iron in the coilgun if the electricity in the coil was turned on but not turned off?

10. Why does the coil of wire in a speaker become attracted to or repelled by the permanent magnet on the back of the speaker? _____
