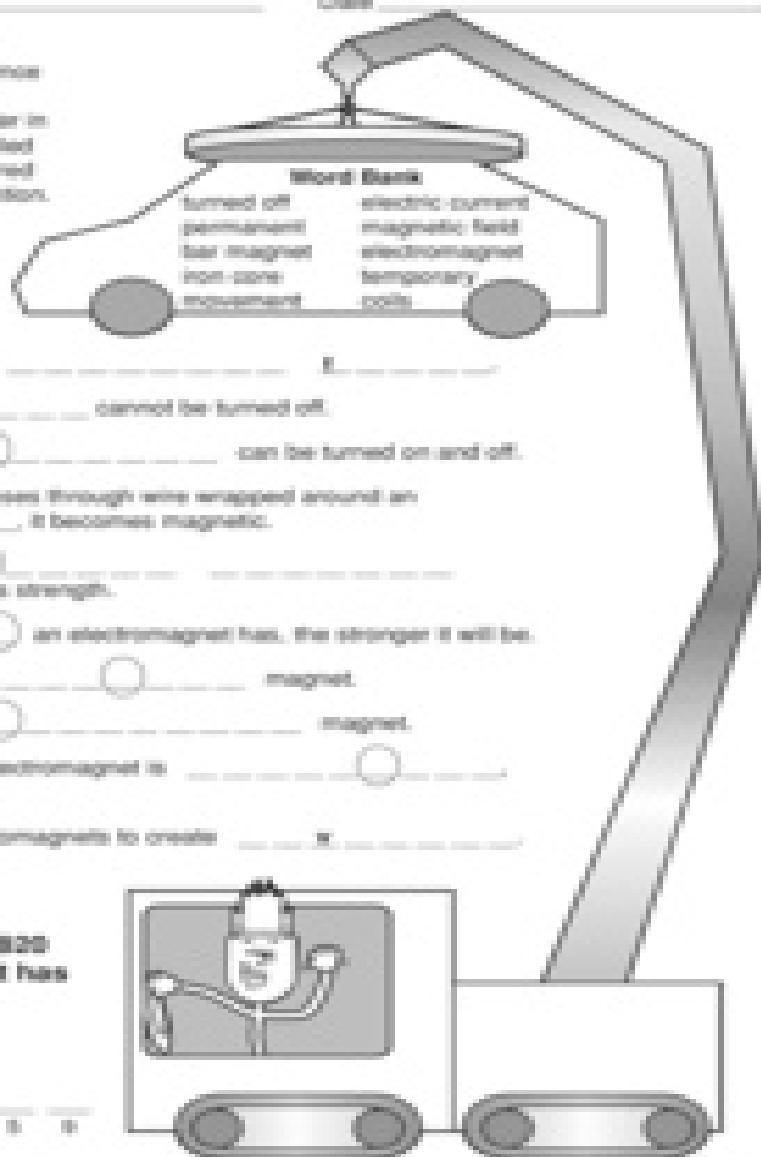


Name \_\_\_\_\_ Date \_\_\_\_\_

## "Mag-neals"

Use the clues in each sentence and the word bank to fill in the missing word(s). Write one letter in each blank. Then write the circled letters on the matching numbered lines below to answer the question.



### Word Bank

turned off	electric current
permanent	magnetic field
bar magnet	electromagnet
iron-core	temporary
movement	coils

1. An electric current has a \_\_\_\_\_ **E** \_\_\_\_\_.
2. A \_\_\_\_\_ **O** \_\_\_\_\_ cannot be turned off.
3. An \_\_\_\_\_ **O** \_\_\_\_\_ can be turned on and off.
4. When electric current passes through wire wrapped around an \_\_\_\_\_ **O** \_\_\_\_\_, it becomes magnetic.
5. The amount of \_\_\_\_\_ **O** \_\_\_\_\_ affects an electromagnet's strength.
6. The more \_\_\_\_\_ **O** \_\_\_\_\_ an electromagnet has, the stronger it will be.
7. A bar magnet is a \_\_\_\_\_ **O** \_\_\_\_\_ magnet.
8. An electromagnet is a \_\_\_\_\_ **O** \_\_\_\_\_ magnet.
9. When the current to an electromagnet is \_\_\_\_\_ **O** \_\_\_\_\_, it is no longer magnetic.
10. Electric motors use electromagnets to create \_\_\_\_\_ **E** \_\_\_\_\_.

Who discovered in 1820 that an electric current has a magnetic field?

H \_\_\_\_\_

\_\_\_\_\_