



Name: Form:

Based on pages 14 and 15 of *Changing circuits*

Making an electromagnet

Try this...

1. Take a long nail and wrap a wire around it as Diagram 1 shows.

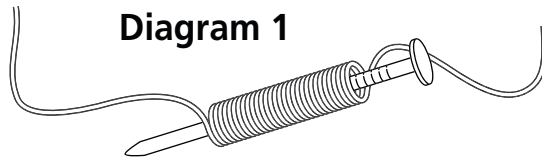


Diagram 1

Make about thirty coils of wire around the nail.

2. Set up the coil and nail as shown in Diagram 2.

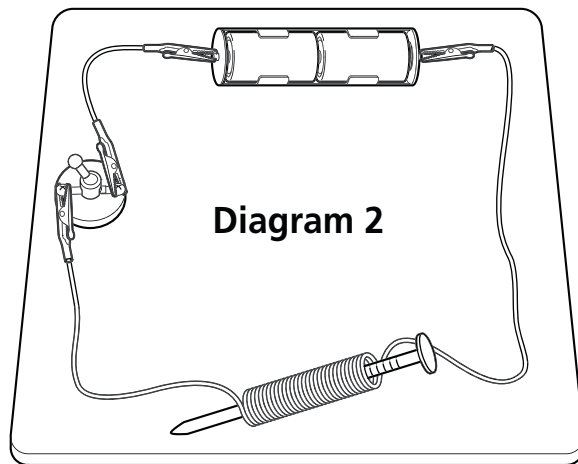


Diagram 2

3. Bring a small paperclip next to the coil and the nail.
4. Switch on the current.
5. What happens to the paperclip?



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6. Plan an experiment to find out how the number of coils around a nail affects its magnetic power. Write down your plan here.



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7. Show your plan to your teacher. If your teacher approves, try the investigation.

Looking at the results.

8. What do the results show?



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