

Turning a Nail into a Magnet



- 1 Stroke the nail with the magnet 30 times. Touch the nail to the staples. Record the number of staples picked up in the table. Repeat this step two more times. Use a different nail for each trial.
- 2 **Predict:** How will increasing the number of times you stroke the nail with the magnet affect the strength of the nail magnet?

- 3 Test your prediction using 50, 75, 100, and 150 strokes. Repeat each test three times using a different nail for each trial. Find the average for all three trials.

| Number of Strokes | Number of Staples Picked Up | | | |
|-------------------|-----------------------------|---------|---------|---------|
| | Trial 1 | Trial 2 | Trial 3 | Average |
| 30 | | | | |
| 50 | | | | |
| 75 | | | | |
| 100 | | | | |
| 150 | | | | |

Conclusion

- 4 Was your prediction correct? Explain.
