**How does an electric motor work?**

Do you know how an electric motor works?

Watch this [video](https://www.youtube.com/watch?v=CWulQ1ZSE3c&app=desktop&ab_channel=JaredOwen) to find out. Then answer the questions.

Here are some words that you will find useful.

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| --- | --- |
| 1. armature 2. commutator 3. stator 4. rotor 5. spinning 6. polarity 7. switch 8. torque 9. axle | 1. στάτης, τύμπανο 2. μετατροπέας 3. στάτορας 4. στροφέας, ρότορας 5. περιστροφή, περιστρεφόμενος 6. πολικότητα 7. αλλάζω, αντιστρέφω 8. στροφορμή 9. άξονας |

Ιf you have any other unknown words, look them up [here](https://www.wordreference.com/engr/).

1. Name a few household devices that have electric motors.
2. What is a circuit made up of?
3. What do we use in a circuit to start or stop the flow of electricity?
4. What are the two poles of a magnet?
5. What happens with the magnets’ poles, when you bring two magnets one next to the other?
6. What happens when you use a metal bolt with a wire wrapped around it in a circuit?
7. Can an electromagnet be turned on and off?
8. How can we reverse the polarity ofan electromagnet?

Now say if the following statements are **True** or **False**

1. If we keep switching the polarity of an electromagnet which is next to a permanent magnet, it will keep spinning so that opposite poles attract and same poles repel. …………………
2. If we put an electromagnet in the middle between two permanent magnets with opposite poles, the electromagnet will keep spinning. …………………
3. The metal loop in a circuit is called a commutator. …………………..
4. The commutator ring helps switch the polarity of the electromagnet. ……………..
5. It is not necessary to have more than one loop in a circuit in order to create an electric motor. …………………
6. The spinning force on the armature is called torque. ………………..
7. Electromagnets are stronger with fewer wires. …………………..
8. When the motor has stronger electromagnets, it will spin faster. …………………
9. The motor shown in this video is a DC motor. …………………..
10. Most of the electric motors will produce some form of spinning motion. ………………..

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