

How can you unlock a door  
using a magnet?

## Lesson Assessment

1. For each example, circle the property or properties of magnets being used. (There may be examples where more than one property is being used.)

**Attracting**: Magnets attract other magnets and some metals.

**Repelling**: Magnets repel other magnets.

**Working at a distance**: Magnets don't have to be touching to push and pull each other.

<u>Example</u>	<u>Which property(ies) of magnets is being used?</u>		
a. Holding things on the refrigerator with magnets	Attracting	Repelling	Working at a distance
b. Cow magnets picking up metal in a cow's stomach	Attracting	Repelling	Working at a distance
c. Magnetic train ("MagLev" train) using magnets instead of wheels	Attracting	Repelling	Working at a distance
d. Magnetic clasp on a purse or bag	Attracting	Repelling	Working at a distance
e. "Magic" trick: moving a magnet with a magnet under the table	Attracting	Repelling	Working at a distance
f. Picking up cars & other metal pieces at the junkyard	Attracting	Repelling	Working at a distance

**Bonus**: In the space below, come up with your own example. Give the property of magnets it uses.

2. Reflect on your magnetic lock design:

A. What problem were you trying to solve?

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B. Draw and label your lock design.

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C. Choose one property of magnets:

attracting      repelling      working at a distance

How was this property of magnets useful in your design?

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