Magnet Soccer

Sections













Challenge Areas









CREATIVE

Scout Method Elements







LEARNING BY DOING





PATROL SYSTEM











YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas













SOCIAL

PHYSICAL INTELLECTUAL CHARACTER

The Adventure

Explore the magic of magnets by setting up magnet cars and versing your friends in a miniature game of soccer.

Plan

- 1. Investigate magnets and how they work. You might also like to investigate different types of magnets. There are plenty of explanation of magnets, but you might like to have a look at this one to get started:

 https://science.howstuffworks.com/magnet.htm
- 2. Investigate what types of materials are magnetic. What do these materials have in common?
- 3. Read the safety information and discuss with your leaders or another appropriate adult what safety equipment, precautions, and supervision may be required. Ensure that you have these safety measures in place before starting the 'Do' section. A risk assessment should also be completed.
- 4. Communicate with your patrol members and leaders to see what equipment that you need to bring.

Do

- 1. Either with adult supervision or by getting an adult to assist you, superglue a small button magnet to base of a small toy car. Think about your magnet size and placement wisely as your car still needs to be able to roll on its wheels.
- 2. Create a soccer field on a sheet of clear plastic by drawing a circle in the middle and creating a goal box at each end. You can use a permanent marker to draw on the plastic. You may also like to find some goals. Be as creative as you like.
- 3. Make sure that your soccer field has some sort of barrier on it so that your ball does not roll off-field.
- 4. Set up your field in a location that you can access under the clear plastic.
- 5. Using a marble, verse your patrol members in a game of marble soccer by using another magnet to move your car around through the clear plastic. Make sure to consider which pole of each magnet you are using so that the magnets are attracted to each other rather than repelled.

Review

- 1. Did your magnet cars work as expected? Why or why not?
- 2. What did you enjoy the most from this experiment? What did you learn?
- 3. If you were to do this activity again, what would you do the same? What would you do differently?
- 4. What challenges do you think you might face if your soccer board were made out of different materials?

Safety

- Small parts risk: This challenge card uses small magnets that could easily be swallowed. Make sure to supervise younger youth members so that they do not ingest these magnets.
- Superglue: Superglue can be dangerous to your health and there is also the risk that you may superglue the wrong thing such as supergluing your fingers together. Take care when using and ensure either adult supervision or have an adult assist you.
- Magnet risk: Magnets can be quite powerful and can hurt if you get your skin caught between two magnets

Variations

- Try making a supersized soccer field with some large toy cars and larger magnets.
- See what other games you can play with your magnet cars. You could also try racing them.