Notes for teachers:

These games illustrate magnetic principles

You will need:

Sets of 10 magnets for each student

I spray paint each set either white or blue so pairs of players can tell whose magnets are whose

Because I use cheap and messy black ceramic magnets, the spray paint also lessens the complaints from students that their hands are all dirty now!

Copies of the handouts for each student

For Jishaku you will need the triangles cut out of paper or foam board, one set for each pair of students

Fit them to the size magnets you are using – mine are about 4 inches on the hypotenuse

<https://boardgamegeek.com/boardgame/36783/jishaku>

For the balancing game, I use the square refrigerator magnets that come on the phone book

(about 4 inches each side)

<https://boardgamegeek.com/boardgame/380/polarity>

(Magnetic Legos also comes from this site)

For the shuffleboard, the game board is the last sheet in the handouts

<https://boardgamegeek.com/boardgame/117822/kalide>

**Magnets Games**

This is a little different, we will be playing the magnets games in pairs

There are a lot of games that use magnets

Remember all those “travel” games designed for kids to play in the car?

There are some games that as actually based on magnetism

You can buy the game – or you can make your own!

**Jishaku/Yikertz**

Jishaku, is the Japanese word for magnet

This game uses magnets for playing pieces

Play in pairs or at most three players

Each team begins with one set of gameboard triangles

Each player begins with 10 magnets (use different colors)

Each player places one magnet per turn

You alternate turns with your opponent

The goal of the game is to place all your magnets onto the triangle of the game board without letting any magnets connect

If any magnets connect on your turn, you must collect all those magnets and add them to your pile

The first person to run out of magnets wins

Skilled players learn to use magnetic force in their favor repelling the magnets closest to them without forcing them into other magnets

The board consists of 4 triangular mats

The 4 mats let you change the overall shape and difficulty



Easiest: Not too hard:





Harder: Hardest:



Unpredictable:

**I won \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ games**

**Polarity Game**

Use the refrigerator magnet black-side-up as the base

Put one magnet in the center

Use the repulsion with a second magnet to lean the

second one so it stands at an angle

Can you do it?

My record is two leaning magnets – can you beat it?

**I balanced \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ magnets**

**Ka’lide (Magnetic Shuffleboard)**

**Note: the board is the last sheet in your packet – you can detach it to make it easier to play**

The aim of the game is to flick or push your magnetic puck across the board

to get the highest score

Play in pairs of players using different color magnets

Flick the magnetic puck down the board on your turn

Your opponent will then flick their puck, attempting to repel yours off the

board in the process

Use the magnetic powers to attract your pucks to each other to create puck

clusters and you can double, triple, or even quadruple your score

When both players have played all of their 10 magnetic pucks, the game ends

The board is on the back page of this handout

**My score was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



http://www.geekalerts.com/kalide-magnetic-action-game/

**Magnetic Legos**

A cooperative game!

You need a timer

Can you and your teammate create the following pattern with your magnets:

You have five minutes to finish this task

**We did it after \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ minutes!**

**We failed! \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |
| --- | --- | --- |
| **Flick Zone** | | |
| **100** | | |
| 150 | **75** | **150** |
| **50** | **200** | **50** |
| **100** | **25** | **100** |
| **Dead Zone** | | |
|  | **150**  **75**  **150**  **50**  **200**  **50**  **100**  **100**  **25** |  |
|  |  |  |
|  |  |  |
| **100** | | |
| **Flick Zone** | | |