

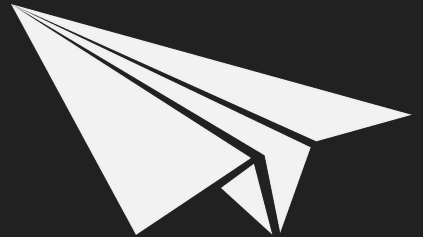
MAY THE FORCE BE WITH YOU

Piwakawaka Team instructions and examples for:

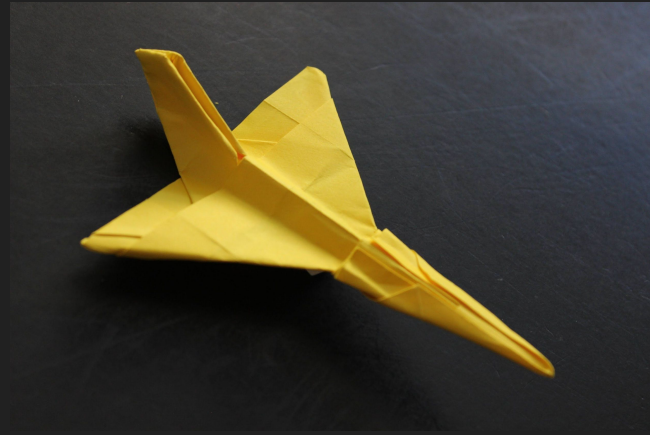
- Paper planes
- Ramps
- Marble Runs
- Comic Strips

Paper planes

- Paper planes - Make some different types or sizes of paper planes.
- Think about the following:
 - Measure how far each type flies.
 - What type flies better?
 - Look at the design and say why do you think that is.
 - Why does the plane eventually fall to the ground?
- <https://www.diynetwork.com/made-and-remade/learn-it/5-basic-paper-airplanes>



Paper Plane Examples



HOW TO MAKE YOUR OWN TOY CAR RAMP:

1. Use what you have at home (cardboard, wood, plastic) to construct some different sized ramps leading to a jump.
2. Place your car at the top of each ramp and release it to make it do the jump.
3. Measure how far it went. What makes it go further and why do you think that is?

LIKE THIS!



MAY THE FORCE BE WITH YOU

Make your own- Toy car ramp!



It could also look something like this...



You could also make.. A BIKE RAMP

It is important you are being safe at all times- therefore only do this if you have parent help and have the space or equipment to make a bike ramp.



How far can you go? Does it change if you're biking faster or slower in the lead up to the ramp? What kind of forces make your bike pedals go around? A push or a pull? What makes your bike hit the ground again once you're up in the air? A push or a pull?



Marble Runs and Mazes

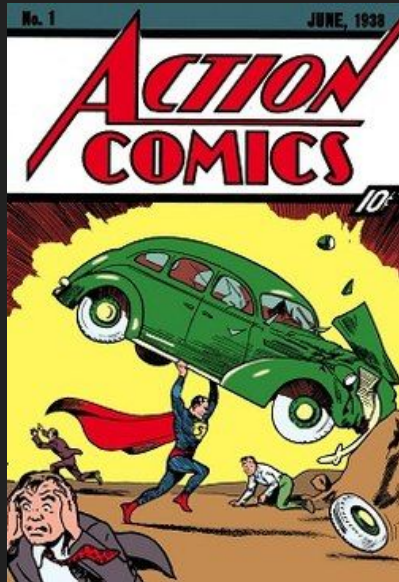
- Use anything you have lying around to make a marble run or marble maze.
- How long can you make the marble move for?
- How long can you make the marble run?
- How can you make the marble go faster or slower?
- What forces do you think are happening to make the marble move?

Marble Run and Maze Examples



Comic Strips

Create a comic strip that includes a superhero using pushing or pulling to save the day.



For example....

Superman is PUSHING this car up to stop it falling on the man



Superman is PULLING these worlds away from their own dying galaxy to save them

Remember to...

- Use your experiments to write about what you have done!
- Think about forces (pushing and pulling) to explain why you think things happened the way they did.
- Post photos and/or videos on Seesaw with an explanation of what happened and why you think that is.

HAVE FUN!!