

Zip wire challenge



You will need:

String, wire, wool, rope or any other material suitable to make a zip wire (check with an adult first),

Straws, pipe cleaners, sellotape, paperclips (anything else that might be useful!) to attach your zip wire and make a harness

Teddy or small figure to sit in the harness and travel down the zip wire

Timer

Somewhere to set up the zip wire – can be indoors or outdoors

Experiment Variables – you need to decide what you are testing (what is the one thing you will change in your investigation?). What might be most useful information for Mrs Martin?

Type of zip wire

Incline of zip wire (steepness of the slope of your zip wire)

Weight of teddy

To test one variable all other variables must remain constant. For example to test whether the weight of the teddy makes a difference, the type of wire, incline and harness must stay exactly the same. It's good practice to repeat each test 3 times and calculate the average time taken to help reduce errors.

Test each variable by recording the time taken to travel from top to bottom.

What do your results tell you? How does friction impact your zip wire?