

STEM Strike

Create your own ten-pin bowling game.

Using your STEM skills you will need to perform a number of different experiments/tests to see which type of home made pins and bowls are the best to get a strike with!

You will need to source lots and lots of different types of empty plastic bottles (different shapes and sizes). Also you will need to source different materials to fill the bottles with to weight them down (water, soil, rocks or sand). You will need to selection of different size and weighted balls (Football, Tennis ball etc) Once you have your bottle its time to start testing the different bottles and balls.

Research, look into why pins used in real bowling alleys are shaped like a bottle (large at the bottom and thin at the top). Why do you think that is the case?

As with all experiments there needs to be a control element for certain parts of the test, for instance when setting up your bowling alley make sure that it is measured out so the distance is the same for every different bottle, filling and ball combination.

Undertake your games of ten pin bowling using a different combination of bottles with fillings i.e. large bottle filled half way with sand, small bottle filled to the top with water.

Record your results on the 'STEM Strike' work sheet.

What you will need?

Variety of different plastic bottle

Variety of fillings for bottles (Sand, Water, Soil and Rocks)

'STEM Strike' work sheet

How do I gain credits for this Children's University activity?

Simply take part in the activity and evidence your wonderful work. Make a note of the special 'Activity Stamp Code' at the bottom of this page and take it into school. If you have a Passport to Learning call the Activity '*Enrich Education Online*' and write down the activity code in the '*Stamp of Approval*' section.

Get 1 children's
university credit

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Bottle Size	Bottle Filling	Type of Ball	Number of pins knocked down