

# SLINKY EXPERIMENTS

Kids have loved watching slinkies travel down staircases for decades! But- not all staircases are the same. We want to challenge you to find the Best Slinky Staircase in- or outside- of your house!



## LEVEL 1 EXPERIMENT

- Step 1: Find the slinky in your camp kit.
- Step 2: Locate all the staircases in your house.
- Step 3: Starting at the top of your first staircase, place one end of your slinky on the edge of the top stair and drop the other end of the slinky on the next stair below, letting go of the slinky at the same time.
- Step 4: If you found a good staircase, the slinky should continue to move down the staircase on its own! If not, it will “slink” down the first stair, but not move any farther. Observe how far it goes!
- Step 5: Continue steps 3 and 4 until you have used your slinky on every staircase in your house.
- Step 6: When done, ask yourself: “Which staircase did my slinky travel the farthest down?”
- Step 7: When you have identified which staircase in your house had the best slinky results, ask yourself the following questions about the stairs!
  - Is the step where my foot goes long or short?
  - Is the stair tall or short?
  - Is my staircase made of wood, or covered in carpet?

- Step 8: Be ready to share your answers to the questions above in camp tomorrow! Maybe, when everybody shares what their staircase looked like, we can see if our best staircases had anything in common!

## LEVEL 2 EXPERIMENT

- Step 1: Find a ruler/measuring tape in your house. Print out the slinky data sheet below and get your pencil from your camp kit.
- Step 2: Identify all the staircases in your house.
- Step 3: For each stair, measure the length of the step (where you put your foot) and the height of an individual stair and write it down.
- Step 4: Once you have measured, test the slinky out on that staircase. Starting at the top of the staircase, place one end of your slinky on the edge of the top stair and drop the other end of the slinky on the next stair below, letting go of the slinky with both hands as you do so.
- Step 5: When done, record how many steps your slinky traveled.
- Step 6: Continue until you have experimented on each staircase with your slinky.
- Step 7: When you have completed the experiment, look at the staircase on which your slinky traveled the most more closely.
  - Is the step longer or shorter than the others?
  - Is the stair taller or shorter than the others?
- Step 8: Once you have looked at the data, decide if the length of the step or the height of the stair influences the slinky's performance, and be ready to share your findings the next day on Zoom!

# SLINKY DATA SHEET

Staircase Name	Step Length	Stair Height	Number of Steps Traveled by Slinky