

# Seismic Waves with Slinkies

1. Identify 4 seismic wave movements you can make with your slinkies:

## Seismic Waves with Slinkies

2. How does amplitude change when you add more energy to the slinky?
3. How would energy and amplitude change as the seismic wave travels through:
Bedrock:
Loose Sediment:
Water-saturated Sediment: (wet sand or mud)

### **Budget**

Material	Quantity	Cost	Total
Spaghetti Noodle (each)		\$1.00	
Angel Hair Noodle (each)		\$1.50	
Lasagna (one sheet)		\$10.00	
Gummy Bear (each)		\$3.00	
Mini Marshmallow (each)		\$2.00	
Hot Glue Gun Stick (Glue gun included with purchase)		\$10.00	
1 Meter of Tape		\$7.00	
<b>Grand Total</b>			

### **Total Budget of \$75**

You may only buy up to:

- 2 sheets of lasagna
- 1 glue gun stick
- 2 meters of tape

Your Structure must fit the following requirements:

- It must be at least two floors tall (cardboard does not count as a floor)
- Each floor must be separated from other floors by a minimum of 10cm
- You must include a washer on one of your floors (both floors must be able to hold one; it cannot go on the cardboard base!)
- Allow rooms for clamps on the cardboard base

#### DO NOT EAT ANY OF THE MATERIALS!

## Design your structure here:

## Reflection

1. What worked? What didn't?



2. What would you change and why?

3. What was your biggest constraint?

- 4. What would happen to your structure during an earthquake if it was built on:
  - a. Solid Bedrock:
  - b. Loose Sediment:
  - c. Water-saturated Sediment:

# **Redesign of Structure**

