Name _____ Per ____ Date _____

# Build a Better Wall

Observe how the wall fails when its base is shaken rapidly back and forth, simulating the motion of a building hit by S waves during an earthquake. Sharply push the base a few centimeters horizontally.

1) What part of the wall fails first? _____

Imagine how the horizontal force you applied to the base travels to the upper parts of the wall.

2) What caused the first structural failure? _____

   _____

Add structural elements to your wall to provide paths for horizontal forces, or loads, to travel through.

3) Why must additional structural elements be added to a wall before it can carry horizontal forces?

   _____

   _____

4) How many additional structural elements did you need to add? _____
5) Diagram the wall you built including the structural elements: