

EARTHQUAKE-PROOF STRUCTURE PROJECT

GOAL: Create an earthquake-proof structure that must also meet the following criteria:

- The main frame of the structure must be *at least* 24 inches high. (No “antennas” allowed to meet height requirement!).
- Base must fit inside an 8 inch x 8 inch square.
- Must have 3 floors (ground floor + two more).
- Basic list of materials is listed on Ms. Stewart’s website.

You will be responsible for completing the following activities during this project:

POINTS	ACTIVITY	DESCRIPTION	DUE DATE
_____/5	PLANNING SKETCHES	Everyone on the team will create a planning sketch to present to your team.	11/19
_____/20	DESIGN PROPOSAL	Written proposal (1 page, double-spaced) explaining your group’s design idea and reasons why you think it will be a suitable earthquake-proof structure using complete sentences.	11/20
_____/20	SCALED DRAWING	Create the final building design on graph paper, showing one side view and one top view, along with the scale key. (1 cm = 1.5 in)	11/24
_____/15	FINISHED STRUCTURE	Completed structure, built to specifications and ready for shake table tests.	12/1
_____/20	SHAKE TABLE DATA SHEET	Complete a data sheet based on the results of your building’s shake tests using complete sentences.	12/2
_____/15	FINAL REFLECTION	Each individual should complete a reflection and evaluation of the project.	12/2
_____/5*	BONUS POINTS	Bonus for structure maintaining at least 95% standing.	

TOTAL SCORE: _____

* If you did everything 100%, you could get a total of 95/100. To earn the last 5 points, you must get 95% of your structure to remain standing.