EARTHQUAKES ACTIVITY SHEET

EARTHQUAKE PROOF BUILDINGS

Controllable weights on

roof can counteract

shaking

twist

Shock

absorbers

Foundations

the ground

sunk deep into

Cross bracing (diagonal supports

in an X shape) can

allow building to



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YOU WILL NEED:

- Paper straws/lollipop sticks
- Card
- Masking tape
- Tray
- 3x 50g weights (whatever you have handy!)

Engineering buildings to withstand earthquakes is extremely important in earthquake-prone areas. New buildings can be designed from scratch to be earthquake resistant and older buildings can be retrofitted with new technologies to help stop them collapsing in an earthquake.

The diagram opposite shows some of the ways buildings can be designed in order to help save lives during an earthquake.

DESIGN AN EARTHQUAKE PROOF STRUCTURE

Use the space below to design your own earthquake resistant structure. Your structure must be at least 30cm tall, have 3 floors and each floor must be able to support a 50g weight. Make sure to label your structure clearly and to work out how much of each material you will need.

Automatic window

Fire resistant

Good road

Open spaces for

evacuations

access

materials

shutters

MIX STRUCTURE DESIGN	MATERIALS I NEED
	paper straws/lollipop sticks
	sheets of card
	roll of masking tape

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BUILD YOUR EARTHQUAKE PROOF STRUCTURE

Using your materials build your earthquake proof structure. Remember that your structure must be at least 30cm tall, have 3 floors and each floor must be able to support a 50g weight!

Take a picture of your structure and stick it in the photo frame opposite!

TEST YOUR EARTHQUAKE PROOF STRUCTURE

Place your structure and your weights on a tray and slide the tray backwards and forwards on a table. To survive the earthquake your weights must not fall off and the structure must not collapse for 10 seconds!



If you were to make it again, how would you improve your structure?