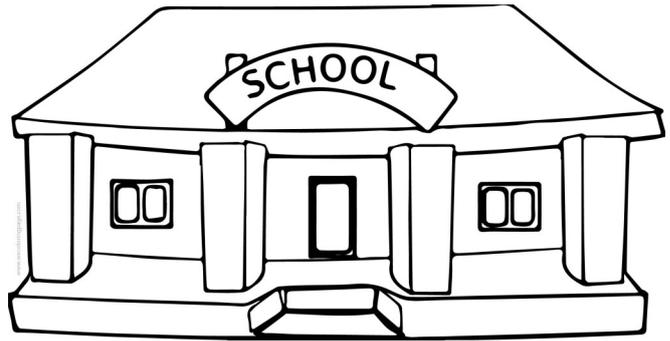


# Project Brief

## The Problem

East Marden has been approached by a group of architects who are looking for fantastic thinkers to help them solve a problem.

They have been asked to design new building for a school or a town in another part of the world. This needs to be an inviting space , however this part of the world sometimes experiences a sudden geological change or a severe weather event (of your choosing).



## The Task

Your task is to design a new building that will survive a natural disaster of your choosing.

You need to research information about your natural disaster, how it is caused, what factors make it deadly, the affect it has on the 4 spheres.

After you have done this, you will need to design your building will survive the disaster and will keep any people inside it safe, and then explain why your design will be the best one for the new school or town.

## Things You Must Consider:

- You may work in groups of up to 3.
- You may design your structure in any way you wish (drawing, Minecraft, building a model etc)
- You may present your learning in any way you wish (a poster, video, PowerPoint, newspaper article etc)
- You will need to explain why your design is the best design for the building.
- You will need to make sure any of your research is written in your own words, not copied.

*My email: [carly.wilamowski772@schools.sa.edu.au](mailto:carly.wilamowski772@schools.sa.edu.au)*

# Project Steps

## Investigate

- Choose a sudden geological disaster or an extreme weather event to research for your project.
- You will need to research:
  - *What causes this disaster.*
  - *Where your disaster occurs throughout the globe (include a map).*
  - *What affects this disaster has on the four spheres.*
  - *What short term and long term impacts might a disaster like this have on the community it affects.*
  - *What measures have been put into place to help a community survive a disaster like this.*
  - *How people can prepare for a disaster like this before it occurs.*

## Design, Plan, Manage

- Using your research, plan a building that will survive an extreme weather event or a sudden geological event.
- Begin writing an argument to present to the architects for why your design is best suited to the problem.

## Create

- Create your building using the medium of your choice (Minecraft, sketches, a physical structure, etc)
- Make sure to include images of your design in your final presentation.

## Evaluate and Refine

- Use the problem and task criteria to make sure that your design meets all of the project criteria.

## Communicate

- Present your learning in a way of your choice. This could include a: video, poster, powerpoint etc.
- Share this with the class in week 11 (OR email it to me by the 17th of April, 2020) at [carly.wilamowski772@schools.sa.edu.au](mailto:carly.wilamowski772@schools.sa.edu.au)

Make sure to include any references in your work.

# Self-assessment

Student name: \_\_\_\_\_ Date: \_\_\_\_\_

**STEM project:** Disaster-Safe Buildings

1. Colour a face to rate how cooperatively your team worked.

All group members contributed ideas to the team.	
All group members listened carefully to the ideas of others.	
All group members encouraged others to contribute their thoughts and opinions.	
All group members spoke respectfully to other group members.	
All group members compromised (when needed) to create the best possible product.	

2. List three ways the team helped each other to create the product.

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3. List one difficulty the group encountered when working as a team.

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4. How could a similar issue be resolved in future projects?

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5. What was the most enjoyable part of the project?

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6. What was the least enjoyable part of the project?

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# Assessment

Group Members: \_\_\_\_\_

**Project Task:** To design a new school building that will survive a natural disaster of your choosing and explain why your design will be the best one for the new school.

**Chosen Disaster:**

<b>Grows</b> How you can strengthen your work	<b>Outcomes</b> Aspects of your work that met the criteria (below)	<b>Grows</b> Strong aspects of your work
<b>Science Knowledge</b>		
	<p>Demonstrates knowledge of extreme weather events or sudden geological events and their affects on people and the four biomes.</p> <p>Suggests ways that humans can prepare for such disasters.</p>	
<b>Science Skills</b>		
	<p>Communicates scientific knowledge and understandings clearly, correctly, and concisely</p> <p>Uses scientific terminology effectively.</p>	
<b>Technology/ Engineering Skills</b>		
	<p>Plans, designs and creates a design of a structure that fits the design brief given.</p> <p>Evaluates design to make sure that it fits the brief, and makes changes where necessary.</p> <p>Uses technology to present an argument for why their design is the most effective.</p>	
<b>Group Skills</b>		
	<p>Group members contribute fairly and appropriately</p> <p>All group members collaborated and communicated effectively.</p> <p>Group members resolved any</p>	