

Team Members: _____



Extreme Weather Transportation Safety Device Planning Sheet



As a team, answer the following questions. When you are finished, please draw a sketch of your safety device prototype on the back of this sheet of paper.

Question 1: Which mode of transportation will you create your safety device for? (Include the location if possible.)

Question 2: How would extreme weather affect travel for the mode of transportation you chose?

Question 3: How will your safety device protect someone using that mode of transportation during extreme weather?

Team Members:

	3	2	1	Total
Materials	Only used stated materials for the challenge	Mostly used stated materials for the challenge	Did not use stated materials for the challenge	
Mode of Transportation	Mode of transportation given and safety device related to the mode	Mode of transportation given but safety device did not correspond	Mode of transportation not given	
Extreme Weather	Extreme weather stated and safety device related to the extreme weather	Extreme weather stated but safety device somewhat corresponded	Extreme weather not given	
Safety Device	Safety device prototype was an accurate representation of explanation	Safety device prototype was a somewhat accurate representation of explanation	Safety device prototype did not represent explanation	
			Total	

Comments:

Video Discussion Guide

Video: <https://www.youtube.com/watch?v=5oOHh4RclW8>

Location 1: Shree Adarsha School: Kanpur, Nepal

1. What modes of transportation do the students use to get to school?
2. How would the extreme weather of heavy rains affect their travels?
 - Students leave 1 ½ hours before school begins
 - Walk down the mountain to the treacherous Trishuli River.
 - NO BRIDGE!!!
 - The Tuin: a metal basket that hangs from two steel cables
 - Hitch a ride into town
 - Repeat at the end of the day
 - Potential Danger: Walking along the top of the cable in flip flops to bring the basket back to the other side of the river; how does it stop, fall out of the basket; raging river below
 - Extreme Weather: this region can have heavy rains which would lead to flooding of the river as well as making hiking down a mountain dangerous

Location 2: Pamoseang Village, Indonesia

1. What modes of transportation do the students use to get to school?
2. How would the extreme weather of heavy rains affect their travels?
 - Have a fairly decent bridge when flooding does not take the bridge materials away
 - Older children can traverse on ropes while younger children must walk through the river
 - Iron cables are rusty, frayed and slippery when wet – can cause someone to fall into the river below

Location 3: Atuleer Village: Sichuan, China (note – many of the residents of this area have been relocated since this video was created)

1. What modes of transportation do the students use to get to school?
2. How would the extreme weather of heavy rains affect their travels?
 - 17 different bamboo ladders with an accumulative height of 2,625 ft
 - Climb every two weeks
 - This area can receive heavy rains and heat waves (slippery ladder surface/ weather may cause the supports to loosen)

Location 4: Lingshed Village, Indian Himalayas

1. What modes of transportation do the students use to get to school?
2. How would the extreme weather of heavy rains affect their travels?
 - 6 months of the year -easily by road
 - Other 6 months of the year – heavy snowfall blocks access by road – must use the Chadar Trek
 - Children walk 14 miles in subzero temperatures
 - Terrain is slippery and treacherous – pieces of ice can break off
 - Fall to icy river could be deadly
 - Can take up to 5 days to complete the journey

Location 5: Acacias, Columbia

1. What modes of transportation do the students use to get to school?
2. How would the extreme weather of heavy rains affect their travels?
 - 2 choices to get to school – 5-hour hike down a mountain, cross a river, and up another mountain or 2,625 foot zipline
 - No harness
 - Use V-shaped piece of wood to hold onto and as a handbrake
 - Speeds up to 50 mph
 - Younger children put into sacks and carried down by elders