

Hurricanes are the most extreme form of tropical storm. The Saffir-Simpson scale is a 1-5 rating based on a hurricane's sustained wind speed at that time. It can be used to give an indication of the potential damage and flooding.

Category	Wind speed	Description	Diagram
1	119-153 km/h	Low level of damage. Roof coverings could be partly removed. Mobile homes and carports could be destroyed. Glass could be broken and people and livestock could be injured or killed by flying debris. Large branches of trees could break. Power cables could be damaged, resulting in power cuts.	
2	154-177 km/h	Moderate damage. All types of mobile homes and flimsy structures could be destroyed or shredded by flying debris. Roof structures on poorly constructed houses could be ripped off and unreinforced buildings could be damaged.	
3	178-208 km/h	Extensive level of damage. People and livestock would risk death from flying debris. Older buildings, such as those made of metal could collapse. Windows could be blown out or smashed from flying debris. Trees could become uprooted. Gable ends and temporary structures, such as decking would be destroyed.	
4	209-251 km/h	Extreme level of damage. Well-built homes can be damaged and poorly built homes can be completely destroyed. Windows from many buildings would be blown out. Signs and fences would be ripped out. Power cuts and water shortages would be significant.	
5	Greater than 252 k/h	Catastrophic level of damage. Complete devastation. People and livestock could be killed even if indoors. Total destruction of homes regardless of age or building type. Damage from flying debris catastrophic. Industrial buildings destroyed. Significant power cuts and water shortages.	

Student tasks

1. Draw a sketch of one aspect of the damage for each level of the Saffir-Simpson scale.
2. Find a case study / example of each of the five levels of the Saffir-Simpson scale.
3. What difficulties are there in using this scale for measuring a tropical storm?
4. How would **you** measure a tropical storm? What other factors would you include?