

7.2.3 e3 Skyscrapers Narrative

Time: 50-90 minutes	Anchor Phenomena: Homes in Utah have different characteristics than homes in Florida (see phenomenon info sheet)
Big Idea: Structures are engineered to withstand geologic hazards.	
CCCs <u>Structure and Function</u> , <u>Patterns</u>	Practices Ask Questions, Construct an Explanation, Develop Models

EPISODE SNAPSHOT

Students will research the effect of wind on structures, specifically skyscrapers, and recognize how humans create solutions to geologic hazards.

GATHERING

Students will go through curated research sites to investigate a claim: Humans create engineering solutions to deal with natural hazards such as wind. If you do not have access to Safari Montage, remove that section from the graphic organizer. For each section, the students will look for evidence that establishes a need for a solution to wind and see how humans have engineered these solutions.

REASONING

After looking through the evidence, students should be able to recognize that there are specific examples of engineering solutions and be able to use their evidence to support the claim that humans create engineering solutions to deal with wind.

COMMUNICATE

Students will write their evidence and reasoning to support their claim.

Assessment: Students should express understanding of how humans create engineering solutions for natural hazards such as wind and connect the evidence to the claim.	Materials, resources, handouts, etc. • 7.2.3 e3 Skyscrapers • 7.2.3 e3 Skyscrapers Stations (has links and further station information) • 7.2.3 e3 Skyscrapers PPT A • Station B: Citicorp Center Article: http://www.pbs.org/wgbh/buildingbig/wonder/structure/citicorp.html • Station C: Forces Lab: http://www.pbs.org/wgbh/buildingbig/skyscraper/skyforce.html Loads Lab: http://www.pbs.org/wgbh/buildingbig/lab/loads.html • Station D: 38th Floor video: https://www.youtube.com/watch?v=ekHTvAWKTS8 • 7.2.3 WindResistance E • 7.2.3 Taipei101 E • Station G: Taipei 101 Video: https://www.youtube.com/watch?v=dd5WqmWIRzw • Station H: Building Big Playlist: If you have access to DSD Safari Montage: http://media.davis.k12.ut.us/SAFARI/montage/playlistedit.php?SearchType=my&Action=MakeActive&playlistkeyindex=6897&location=local&newlessonfromplaylis t=
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