

## Step 2. Dig into the Problem in Houston, TX

Important Vocabulary	
<b>Design Thinking</b>	a multi-step process of solving a problem where you imagine an ideal solution , research the problem to understand it better, revise your idea, develop a prototype, and test it
<b>Iteration</b>	changing your plan to make it better based on new things you learn
<b>Prototype</b>	a first, real-life example of a new idea
<b>Mobile Technology</b>	technology related to cell phones and wireless communication devices
<b>Cellular Network</b>	how cell phones stay connected to each other when they are not connected to wi-fi
<b>Natural Hazard</b>	an extreme natural event such as an earthquake, tornado, wildfires, and flooding
<b>Natural Disaster</b>	the effects of a natural hazard on human life and society
<b>Mitigate</b>	to decrease the effects of something

### Storms and Natural Disasters



Ready.gov

<https://www.ready.gov/kids>



National Weather Service: Safety

<https://www.weather.gov/safety/>



National Weather Service: Learn Science and Safety with Owlie

<https://www.weather.gov/owlie/>



Environmental Protection Agency

<https://www.epa.gov/natural-disasters>

# Mobile Technology

## Introduction to US Cellular and Cellular Networks



See **Wireless Fundamental PowerPoint** and **Wireless Fundamentals FAQ**



**Wireless 101: Cellular Transmission**  
<https://www.youtube.com/watch?v=HtCBsULS2VA&feature=youtu.be>



**Four Reasons Your Phone Keeps Dropping Calls**  
<https://electronics.howstuffworks.com/4-reasons-phone-keeps-dropping-calls.htm>



**How Cell Towers Work: Hands On!**  
<https://www.youtube.com/watch?v=Ct0wFde9Xcl>

## Using Mobile Technology During and After Disasters



**Hurricane Florence's Impact on Mobile Networks**  
<https://www.opensignal.com/blog/2018/10/24/hurricane-florences-impact-on-mobile-networks lasted-for-days>



**Mobile Phones as Lifelines for Staying Connected During a Disaster**  
<https://www.cnet.com/news/mobile-phones-as-lifelines-tips-for-staying-connected-during-a-disaster/>



Federal  
Communications  
Commission  
**Federal Communications Commission**  
<https://www.fcc.gov/emergency>

## Shelters



### American Red Cross

American Red Cross Disaster Relief

<https://www.redcross.org/about-us/our-work/disaster-relief.html>



National Mass Care Strategy: American Red Cross Shelter Forms

<https://nationalmasscarestrategy.org/american-red-cross-shelter-forms/>



### FEMA

Federal Emergency Management Agency:  
Community Safe Rooms

[https://www.fema.gov/media-library-data/1482263207061-f439680edcd403c72447a5b612867e18/Community-Safe-Room-Fact-Sheet\\_2016.pdf](https://www.fema.gov/media-library-data/1482263207061-f439680edcd403c72447a5b612867e18/Community-Safe-Room-Fact-Sheet_2016.pdf)



Texas Tech University: Safety Checklist

<http://www.depts.ttu.edu/nwi/education/EducationResources/index.php>  
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## Community Communication and Collaboration



Your Free Career Test: What is an Emergency Management Director?

<https://www.yourfreecareertest.com/emergency-management-director/>



National Severe Storm Laboratory

<https://www.nssl.noaa.gov/research/social/>

## Houston Resources



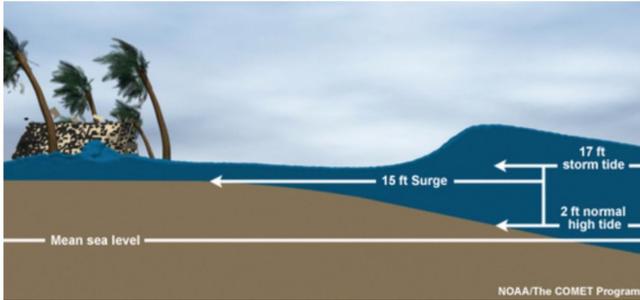
**ReadyHouston**

<https://www.readyhouston.org/>



**ReadyHarris**

<https://www.readyharris.org/>



**NOAA/National Hurricane Center: Storm Surge Overview**

<https://www.nhc.noaa.gov/surge/#FACTS>