

## Step 2. Dig into the Problem in Cedar Rapids, IA

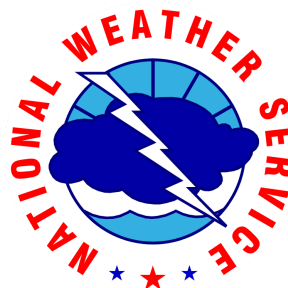
Important Vocabulary	
<b>Design Thinking</b>	a multi-step process of solving a problem where you imagine an ideal solution , research the problem to understand it better, revise your idea, develop a prototype, and test it
<b>Iteration</b>	changing your plan to make it better based on new things you learn
<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 Fundamentals Powerpoint and Wireless Fundamentals FAQ**



**Wireless 101: Cellular Transmission**

<https://www.youtube.com/watch?v=HtCBsULS2VA&feature=youtu.be>

**howstuffworks**

**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

**OPENSIGNAL**

**Hurricane Florence's Impact on Mobile Networks**

<https://www.opensignal.com/blog/2018/10/24/hurricane-florences-impact-on-mobile-networks-lived-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**

**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>  
(Scroll to Bottom)

## Community Communication and Collaboration

**YourFreeCareerTest**

**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/>

## Cedar Rapids Resources



**Be Ready Iowa**

<https://www.beready.iowa.gov/>



**Iowa Department of Homeland Security &  
Emergency Management**

[http://www.homelandsecurity.iowa.gov/disasters/iowa\\_disaster\\_history.html](http://www.homelandsecurity.iowa.gov/disasters/iowa_disaster_history.html)



**Linn County Iowa: Public Health Preparedness and Response**

[http://www.homelandsecurity.iowa.gov/disasters/iowa\\_disaster\\_history.html](http://www.homelandsecurity.iowa.gov/disasters/iowa_disaster_history.html)