

What are floods and how can I keep my friends and my family safe?

Unit Essential Question: How can I prepare and react during a flood?

Teacher Background:

Lesson Overview:

Students will learn what causes floods to occur, and how they can keep their family members and themselves safe. Students will learn the saying, “Turn Around Don’t Drown” (TADD), and developing a safety plan through this lesson plan. Students will develop a 3-step safety plan, so they know how to react before, during and after a flood. Developing a 3-step plan is key to surviving a flood. The primary emphasis of this lesson will be understanding what goes into a safety plan.

Potential Misconceptions:

A large vehicle can handle driving through a variety of weather conditions, thus it can handle driving through any kind of water. False. All shapes and sizes of vehicles are very vulnerable to the power of water. It takes only 12 inches of fast moving water to lift a small car and carry it downstream. Only 18 to 24 inches of fast moving water can lift and flip most large SUVs, vans and trucks. If a school bus drives into 12 to 18 inches of running water, it bus can be easily swept downstream.

Lesson Goals:

Objective:	Students will be able to demonstrate knowledge of terms through question and answer.
Learning Target:	Use the Weather-Ready Nation – Flood video to teach your students how floods develop and how to keep their family members, friends and themselves safe when faced with the treat of a flood.

Standard Information

Performance Expectation (PE)	KESS3-2: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
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Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information. <ul style="list-style-type: none"> Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world. 	ESS2.D: Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. ESS3.B: Natural Hazards Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events.	Cause and Effect Events have causes that generate observable patterns.

Lesson Preparation:

Materials:	Group Size:	Management:
Weather Ready Nation-Flood Video (link provided at suggested text area)	Whole class	At the end of this lesson table, you will find a link to the Weather Ready Nation – Flood, an interactive video which will discuss how floods can develop occur, and what to do before, during and after a flood. A TADD graphic is at the end of the lesson to encourage the educational phrase “Turn Around, Don’t Drown”, along with a flood safety awareness graphic.

Lesson Plan:

Suggested Timing	Agenda:
25 min 10 min	How do floods develop and how can you keep your friends, family members and yourself safe? What is TADD?

Teaching Procedures:

Teaching Procedures:	Teaching Notes
Engage 1. Watch the movie “Weather Ready Nation – Flood” by clicking on the link provided in the suggested text section. The provided link is an interactive video that will take you and your students through a scenario about a	

young family facing the treat of a flood. Your students will learn about what causes a flood, how to prepare for a flood, how to react during a flood, and how to manage after one occurs. Be as enthusiastic as possible through this exercise. Floods can be a terrifying experience, but understanding how to react and make the intelligent decisions under pressure is the best way to survive any flood situation.

2. Talk to your students about the dangers of driving into flooded roadways and bridges. Show your students the two graphics attached at the end of the lesson. Emphasize the importance of how dangerous it is for someone to drive through flooded waters. Each year, more deaths occur due to flooding than from any other severe weather related hazard. TADD is a national campaign to warn people of the hazards of walking or driving a vehicle through floodwaters. Teach the students the chant "Turn Around, Don't Drown!" This is a fun and catchy phrase, once it sticks, it can stick in the memory of a child for a lifetime. Be enthusiastic, and excited! Have the students say it loud and proud, and have each student be excited about it. Each time the students say "Turn Around, Don't Drown" have them be louder each time. Building a fun memory to safety is a sure way to ensure safety for years to come.

Science Notebook:

Make sure students DATE each page of their notebook.

Ask the students to write or draw about a safety plan that is associated with flooding. Where would they go if they were at home if there was a flood?

Assessment:

Formative Assessment: In their Science Notebooks draw a picture how a flood forms.

Literacy Connections:

Vocabulary		Included or Suggested Texts (Title; <i>Author</i> , Year, Type (book/article), Grade, LEXILE)
New or Recently Introduced	Familiar Terms	Weather Ready Nation - Flood https://www.meted.ucar.edu/emgmt/wxreadynation/launch.htm?course=elementary&lesson=flood
Flood	TADD (Turn Around Don't Drown)	

Differentiation:

Below are some suggestions for modifying lessons for individuals or groups of students.

Students that may need more challenge:	Students that may need more support:
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Think Outside the BOX!

ELA
Math
Others:

Reproducible Student Materials:

See next pages

Never Drive Into Flood Waters



even if the water appears calm

Weather-Ready Nation

National Oceanic and Atmospheric Administration

National Weather Service

weather.gov/flood

Do You Really Know How Deep the Water is?

12 inches of fast-moving water can carry away a small car.



6 inches of fast-moving water can knock over and carry away an adult.



18-24 inches of fast-moving water can carry away most large SUVs, vans and trucks.



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**If you have any suggestions to improve the lesson, please contact us at:
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