In Your House and in Your Yard, Watch for Water, Be on Guard

KEY TERMS
- **Arroyo**: A water-carved gully or a normally dry creek found in arid or desert regions.
- **Dam**: A barrier built across a river, stream or creek that is used to control the flow of water.
- **Flash flood**: Dangerous wall of roaring water that can happen suddenly.
- **Flood warning**: Flooding is already occurring or will occur soon in the area.
- **Flood watch**: Flooding is possible within the watch area.
- **Levee**: A raised bank or wall that is designed to prevent the flooding of a river.
- **Runoff**: Water from rain or snow that flows over the ground.
- **Undercurrent**: Water flowing beneath the surface.

OBJECTIVES
After completing this lesson, students will be able to:
- Identify sources of water around the house and yard.
- List water hazards around the house or yard.
- Identify potentially dangerous sources of water in the neighborhood.
- Describe different types of flooding.
- Define flash flooding.
- Explain safe behavior to follow in a flash flood warning.
- Describe how to help someone who falls into floodwater.
- Describe how to help yourself if you fall into floodwater.

MATERIALS, EQUIPMENT AND SUPPLIES
- Poster: In Your House and in Your Yard, Watch for Water, Be on Guard
- *Longfellow’s WHALE Tales* video
- DVD player and monitor or computer with Internet access, projector and screen
- White board, markers and eraser or an easel pad and markers
- Crayons, markers and pencils
- Student Handouts (one for each student):
  - Activity Sheet 10-1: Find the Water Hazards in the House and Yard
  - Activity Sheet 10-2: Be Water Smart
  - Activity Sheet 10-3: Know Your Neighborhood
  - Activity Sheet 10-4: Flood Word Search
  - Activity Sheet 10-5: Flood Safety
Leader's Note
Display the poster, In Your House and in Your Yard, Watch for Water, Be on Guard, at the front of the classroom. Begin a discussion about the poster by pointing to each scene and asking students, “What could be dangerous about this scene? What are the people in the scene doing to stay safe or keep others safe?” Refer to the poster throughout the lesson. As an option, you may use a projector to display the electronic version of the poster. Show the Longfellow’s WHALE Tales video segment, “In Your House and in Your Yard, Watch for Water, Be on Guard,” to support this topic.

TOPIC: INTRODUCTION

Key Points
- Water safety is important wherever there is water—not just at a swimming pool or beach.
- Did you know that after pools, bathtubs are the second leading location where young children drown?
- Did you know that 6 inches of fast-moving floodwater can knock over an adult?
- A person can drown in just a few inches of water.
  - If the water covers the mouth and nose, a person can drown.
- Today we are going to talk about how to stay safe around water, no matter where you find it.

TOPIC: WATER HAZARDS AROUND THE HOUSE

Key Points and Discussion
- In addition to drowning in bathtubs, young children drown by falling headfirst into buckets, toilets, wading pools and other sources of water that most people would not consider to be dangerous.

- Can you think of any sources of water around the house that could be a danger?
  Answer: Allow time for responses.

- You can stay safe and help keep other children safe by recognizing dangerous water situations.
- If you recognize a dangerous water situation, you should tell an adult so he or she can fix the dangerous water situation.

- If you see a bathtub with water in it when nobody is taking a bath, what should you do?
  Answer: Drain the bathtub of water; close the bathroom door; tell an adult.

- If you see a toilet bowl with the lid up, what should you do?
  Answer: Shut the toilet lid; close the bathroom door.

- If you see a bucket with water or another liquid in it, what should you do?
  Answer: Move it out of the reach of young children; tell an adult so it is emptied.
**TOPIC: WATER HAZARDS IN THE YARD**

**Key Points**
- If a family has a swimming pool in their yard, they have to be extra careful and take steps to keep children out of the pool area.
- There must be physical barriers to keep children away from water.
- There should be “layers of protection,” which means there should be several things that keep children away from the pool, not just one or two things. For example:
  - A fence that is at least 4 feet high and completely surrounds the pool
  - A fence with a self-closing gate
  - Fencing that provides a barrier between the pool and the house
  - A pool alarm
  - Safety locks on doors and windows leading to the pool area
- Children should only be in a backyard pool area when an adult has given them permission and is there to supervise them.
- Whenever children are in, on or around any body of water (such as pools, rivers, lakes, streams), adults must provide constant and active supervision.
- Any source of water in the house or yard (bathtub, toilet, bucket, fish pond, wading pool) can be dangerous for a very young child.

*Leader’s Note:* Have students complete Activity Sheet 10-1: Find the Water Hazards in the House and Yard.

**Activity**
- Write the words “I can” three times on the white board or easel pad. Leave space after each “I can.”
- Write the following statement last: I can do my part and be water smart!
- Ask students to offer suggestions about what they can do to reduce water hazards in their homes and yards. Write these down as students provide them.
- Have students recite all of the statements aloud.

*Leader’s Note:* Have students complete Activity Sheet 10-2: Be Water Smart.

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**TOPIC: WATER HAZARDS IN YOUR NEIGHBORHOOD**

**Activity**
- Tell students, “Now we are going to think about what kinds of water might be dangerous in your neighborhood. Think about all of the areas of water near where you live—canals, ponds, streams, swimming pools, fountains, fish ponds.”
- Ask students to name any body of water they can think of in their neighborhoods or communities. As students name them, write them on the white board or easel pad.
Ask, “What happens when it rains a great deal?”

*Answer: Allow time for responses.*

Ask, “Have you ever seen flooding in your neighborhood? Where?”

*Answer: Responses may include the following:*
- Backyard
- Basement
- Rivers
- Ditches
- Street
- Streams

**Leader's Note: Have students complete Activity Sheet 10-3: Know Your Neighborhood.**

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**TOPIC: FLOODS**

**Key Points**
- Floods are caused by:
  - Heavy rain.
  - Hurricanes or tropical storms.
  - Rapid snow melting.
  - Dam or levee failures.
- A flood can become dangerous if:
  - Calm water changes quickly to raging water.
  - Water rises and overflows its normal path.
  - There is little or no warning that it is coming.
  - The floodwater contains raw sewage, chemicals from farms or factories, or gasoline or oil.
- Depending on where you live, you may see different kinds of floods.
  - Coastal floods—Hurricanes and tropical storms can produce heavy rains or drive ocean water onto land. Coastal flooding can also be produced by sea waves called tsunamis, which are giant waves that are created by volcanoes or earthquakes in the ocean.
  - Flash floods in arroyos—An arroyo is a water-carved gully or a normally dry creek found in arid or desert regions. When storms appear in these areas, the rainwater cuts into the dry, dusty soil, creating a small, fast-moving river.
  - River floods—Flooding along rivers is a natural event. Some floods occur seasonally when winter snow melts and combines with spring rain. Water fills river basins too quickly, and the river will overflow its banks.
  - Urban floods—When land is paved for parking lots, it loses its ability to absorb rainfall. Rainwater cannot be absorbed into the ground and becomes runoff, filling parking lots, making roads into rivers, and flooding basements and businesses.
- When a flood watch is issued in your area, you should stay alert. It means a flood is possible.
- When a flood warning is issued in your area, you should take action. It means flooding is already happening or will soon happen.
A flash flood is a dangerous wall of roaring water carrying rocks, mud and other debris.
  - Flash floods can occur within a few minutes or hours of a great deal of rainfall, a dam or levee failure or a sudden release of water held by an ice jam.
  - If there is a flash flood warning, do not delay. Head for higher ground immediately. Higher ground means ground that is higher than the water; for example, a hill.
- It might be tempting to walk or play in floodwaters, but floodwaters have many hidden dangers that most people do not realize.
  - Debris or garbage may be in the water.
  - There may be a current below the surface that you cannot see (undercurrent). Just 6 inches of fast-moving floodwater can knock you off your feet.
  - Water may contain harmful germs or chemicals.

**Leader’s Note:** Have students complete Activity Sheet 10-4: Flood Word Search.

**Key Points and Discussion**

- Every family should have a plan for what to do in the event of a natural disaster, such as a flood. The American Red Cross website tells you the steps for making a plan. After getting your parents’ permission, go to www.redcross.org to learn how to make a plan to be ready.

- Should you swim in floodwater?
  
  **Answer:** No! You should never swim in floodwater.

- Why not?
  
  **Answer:** Responses should include the following:
  - You do not know what is in the water.
  - Debris may injure you.
  - There may be a current that could carry you away.
  - The water may contain harmful germs (bacteria).
  - The water may contain chemicals.

- What should you do if someone falls into floodwater?
  
  **Answer:** Responses should include the following:
  - Do not go in after the person.
  - If possible, throw them something to use as a flotation device, such as a foam ice chest.
  - Call 9-1-1 or the local emergency number.

- What should you do if you fall into floodwater?
  
  **Answer:** Responses should include the following:
  - Try to stay calm.
  - Try to float on your back with your legs extended and your feet pointed downstream.
  - Use your legs to push yourself away from obstructions.
  - Keep your head up so you can see where you are going.
• If you are outdoors and it has been raining a lot and a flash flood is likely, where should you go for safety?

  *Answer: Higher ground.*

• If you are in a car, should the driver try to drive through a flood?

  *Answer: No! The driver should turn around and go another way. If the car stalls in just 2 feet of moving water, the water will have enough force to lift it up and carry it away.*

**Leader’s Note:** Have students complete Activity Sheet 10-5: Flood Safety.

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**TOPIC: WRAP-UP**

**Discussion**

• People need to know about water safety and how to prevent drowning wherever there is water.
• Backyard pools are the leading location where young children drown. Families with pools need to be extra careful.
• Drowning can occur in the home in a bathtub. Young children should never be left alone in a bathtub.
• Any container of water that a very young child could fall headfirst into, such as a bucket or toilet, can be dangerous.
• Know the water areas in your neighborhood.
• Be alert for weather conditions that can cause flooding.
• Never swim or walk in floodwater.
• Remember, in your house and in your yard, watch for water, be on guard.
Find the Water Hazards in the House and Yard

Name: __________________________

Circle the drawings that show a situation in which water could be a danger to a small child.
Color the pictures. Each one shows something you can do to be water smart.
Know Your Neighborhood

Name: ________________________________

Draw a picture of your neighborhood or community below. If you live at the top of a hill or the bottom of a hill, show that. Show streets near your house. Show bodies of water near your house such as home pools, creeks, streams, rivers or an ocean.

Write a paragraph about a water hazard in your neighborhood.

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________
Find the hidden flood words listed below. The words can run across or down.

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khkolkogekfiall
oleltidalwav eofbumbo
narroyomxcerunoffst
evkoloffrothnlpnuvrop
rykhloeamulindallwp
erczdangerouseopdkdp
daweusmogwtkiclema
caiabthunderstormamh
rntocfturnoiolouswa
ovcdalarsspaphavertek
snhinhoorrgingwxteixe
soldoomrmcgreeestwmc
ccffaydlaugatacounle
ablereexwtltreinter
ndothkprietsitiaprow
floodwatertogtimdtp
yawarningroghhegikwioijifobrrcurriancefl
namakemkeoxemomisbsst
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**Word List**
arroyo          floodwater          runoff          tsunami

dam             heavy rain           thunderstorm      warning

dangerous       hurricane           tidal wave        watch

flash flood     levee               tropical storm
Fill in the missing word in each sentence below using the words in the Word List.

Word List
flash    higher    urban    arroyos    coastal    turn    floodwater

1. Just 6 inches of _________________ can knock you off your feet.
2. A _________________ flood can occur within a few minutes or hours of a great deal of rainfall, a dam or levee failure or a sudden release of water held by an ice jam.
3. You should go to _________________ ground if a flood warning is issued.
4. If some streets are filling up with water, this is called _________________ flooding.
5. If water is covering the road, a driver should _________________ around.
6. Storms in dry regions can cause flash floods in _________________.
7. Hurricanes and tropical storms can produce heavy rains that cause _________________ flooding.
Find the Water Hazards in the House and Yard

Name: ________________________________

Circle the drawings that show a situation in which water could be a danger to a small child.

[Images of various water hazards]
Find the hidden flood words listed below. The words can run across or down.

Word List

arroyo  floodwater  runoff  tsunami
dam  heavy rain  thunderstorm  warning
dangerous  hurricane  tidal wave  watch
flash flood  levee  tropical storm
Fill in the missing word in each sentence below using the words in the Word List.

**Word List**
- flash
- higher
- urban
- arroyos
- coastal
- turn
- floodwater

1. Just 6 inches of floodwater can knock you off your feet.
2. A flash flood can occur within a few minutes or hours of a great deal of rainfall, a dam or levee failure or a sudden release of water held by an ice jam.
3. You should go to higher ground if a flood warning is issued.
4. If some streets are filling up with water, this is called urban flooding.
5. If water is covering the road, a driver should turn around.
6. Storms in dry regions can cause flash floods in arroyos.
7. Hurricanes and tropical storms can produce heavy rains that cause coastal flooding.