

# Look Before You Leap

## KEY TERMS

**Aquatic life:** Animals and plants that live in bodies of water.

**Buoyancy:** The ability or tendency of an object or person to float; the upward force a fluid exerts on a body in it.

**Buoyant:** Tending to float; capable of keeping an object afloat.

**Current:** Continuous movement of water in a body of water.

**Dam:** A barrier built across a river, stream or creek that is used to control the flow of water.

**Depth:** A measurement taken downward from the surface of the water; the distance from the

surface of the water to the bottom of the body of water.

**Food chain:** A system where one organism (a plant or an animal) is the food for a larger organism, which in turn becomes food for an even larger organism.

**Hypothesis:** A prediction in science or an informed guess.

**Murky:** Dark or cloudy water.

**Waterfront:** A natural water environment, such as an ocean, river, lake or pond.

**Water pollution:** Contamination of water with harmful substances.

## OBJECTIVES

After completing this lesson, students will be able to:

- Recognize a safe place for swimming.
- Identify the safety equipment that should be at a safe swimming site.
- Explain how to check the water to see if it is safe for swimming.
- Explain some rules for safe diving.
- Understand how wind affects waves and currents in water.
- Describe how pollution affects ocean creatures and water environments.
- Understand a food chain.
- Explain how to protect themselves while swimming by using sunscreen and wearing water shoes.

## MATERIALS, EQUIPMENT AND SUPPLIES

- Poster: Look Before You Leap
- *Longfellow's WHALE Tales* video
- DVD player and monitor or computer with Internet access, projector and screen
- Water
- Large metal cake pan
- Straws (one for each student)
- Clear plastic cups
- Feathers
- Motor oil

- Crayons, markers and pencils
- Fact Sheet 2: Longfellow's Safety and Rescue Equipment Information
- Fact Sheet 5: Longfellow's Rules for Safe Diving
- Fact Sheet 6: Longfellow's Tips on Currents and Dams
- Fact Sheet 4: Longfellow's Aquatic Life Facts
- Student Handouts (one for each student):
  - Activity Sheet 3-1: Check It Out
  - Activity Sheet 3-2: Watch Out
  - Activity Sheet 3-3: Think Before You Jump In
  - Activity Sheet 3-4: Ocean Food Chain
  - Activity Sheet 3-5: Help the Whale

### **Leader's Note**

Display the poster, *Look Before You Leap*, at the front of the class. Begin a discussion about the poster by asking students questions such as, "Is this a safe place to swim? Why or why not?" 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, "Look Before You Leap," to support this topic.

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## **TOPIC: INTRODUCTION**

### **Key Points**

- Swimming in a safe place is important.
  - You should always swim in a supervised area with a lifeguard on duty.
  - You should always swim with a buddy.
- Make sure safety equipment is at the swimming site.
- Look at the water. Check the depth. Make sure the water is safe.
- We are going to do some activities that will help you remember that when you swim, you should always look before you leap.

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## **TOPIC: CHECK IT OUT**

### **Key Points and Discussion**

- Who should you look for before swimming?  
*Answer: A lifeguard*
- Who should be swimming with you?  
*Answer: A buddy*
- Safety equipment should be at any swimming site. Before you swim, check for this equipment.

# Safety Equipment

## Key Points

- Here is some safety equipment that should be at a swimming site:
  - A safety post, which is a post with rescue equipment attached to it.
  - A heaving line, which is a strong, lightweight rope, 40 to 50 feet long. An object that floats, or is buoyant, can be attached to one end and thrown to someone who needs help in the water.
  - A ring buoy, which is a buoyant ring with 40 to 50 feet of lightweight line attached to it. The ring is thrown by a rescuer to someone who needs help in the water.
  - A reaching pole, which is a pole 10 to 15 feet long that is extended into the water to help someone in trouble. A long branch or fishing pole can also be used.
  - A rescue tube, which is a vinyl foam-filled support with a towline and shoulder strap. It is usually carried by lifeguards.
  - A rescue buoy, which is a piece of rescue equipment used by lifeguards at waterfronts. It is made of lightweight, hard, buoyant plastic and has handles on the sides and a towline with a shoulder strap attached.

**Leader's Note:** See Fact Sheet 2, *Longfellow's Safety and Rescue Equipment Information*, for more information about safety and rescue equipment. You can provide this information to students, depending on the level of the group. Explain that some safety equipment can be used by anyone to reach or throw to someone who needs help when swimming. Some rescue equipment is only used by lifeguards. Emphasize that only a lifeguard should go into the water to rescue someone.

# Check the Water

## Key Points

- Before you swim anywhere, look at the water.
  - Notice if there are any currents, or moving water.
  - Notice if there are any waves.
- Check the water temperature. It should be cool to warm.
- Know how deep the water is before you go in.
  - Depth, which is the distance from the top of the water to the bottom, should be clearly marked.
  - If you cannot swim, do not go in water any deeper than waist to chest deep.
- The first time in water, walk in. Do not jump or dive. Check for objects under the surface.
- Never dive headfirst into water unless it is clearly marked for diving.
  - A headfirst entry into shallow water is the leading cause of head, neck or back injuries in the water.
- Never dive into cloudy or murky (dark) water. You do not know what is beneath the surface.
- Do not dive headfirst into waves.
  - You do not know how deep the water is since depth changes when waves come in.
- Obey "No Diving" signs. They are there for safety.

**Leader's Note:** See Fact Sheet 5, *Longfellow's Rules for Safe Diving*, for more information on safe diving. You can provide this information to students, depending on the level of the group.

**Leader's Note:** Have students complete Activity Sheet 3-1: Check It Out.

- Know what is on the bottom before you go in the water. The bottom surface should be firm, gently sloping and should not have:
  - Sharp objects.
  - Broken glass.
  - Trash.
  - Jagged rocks.
  - Holes.
  - Weeds.

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## TOPIC: WATER HAZARDS

### Key Points

- Three things that could cause you trouble in a lake or river or ocean are:
  - Currents.
  - Dams.
  - Aquatic life.

## Currents and Dams

### Key Points

- A current is water that moves.
  - It can change direction.
  - It can be very strong, holding a person underwater.
  - A current can carry a swimmer into deep water or downstream.
- A dam is a barrier built across a river that is used to control the flow of water.
  - When floodgates open at a dam, the water level can rise very quickly.
  - When water flows over a dam, a very strong current can be created that can carry swimmers or boats away.
- Never swim close to a dam.
- Obey warning signals immediately.

**Leader's Note:** See Fact Sheet 6, *Longfellow's Tips on Currents and Dams*, for more information about currents and dams. You can provide this information to students, depending on the level of the group. Explain that there are tips on how to swim to escape a current. Remind students that swim lessons are the best way to stay safe in water.

# Aquatic Life

## Key Points

- When swimming in a lake or river or ocean, you should look out for aquatic life that can be harmful.
  - Weeds, kelp and grass are not dangerous, but a swimmer who swims into a patch of weeds could become entangled. Gently shaking the arms and legs should clear the weeds.
  - Jellyfish or Portuguese man-of-war stings can be painful and they can make a person feel sick. The side effects of a sting can include allergic reactions that can cause breathing or heart problems. Swimmers should avoid these creatures in the water and on the beach.
  - Sea urchins are found in the ocean and are covered with sharp points that can break off in a person's hand or foot and cause a painful wound. Swimmers should not pick up sea urchins and should be careful not to step on them.

**Leader's Note:** See Fact Sheet 4, *Longfellow's Aquatic Life Facts*, for more information about aquatic life. You can provide this information to students, depending on the level of the group.

**Leader's Note:** Have students complete Activity Sheet 3-2: *Watch Out*.

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## TOPIC: WIND AND WAVES

### Key Points

- Wind affects ocean waves.
- The waves become larger when there is high wind.
- It is not safe to swim when the waves are very high.
- We are going to do a science experiment that shows how wind helps to cause waves.

### Activity

- Fill a large metal cake pan with water and give each student a straw.
- In groups of four to five, have students blow through their straws across the surface of the water in the pan. The harder they blow, the bigger the waves.
- Next, have students blow in different directions, causing currents.

### Discussion

- What should you do if you get caught in a strong current?  
**Answer:** Responses should include the following:
  - Call for help.
  - Have your buddy yell for help.
- If the current carries you straight out, try to swim along the shoreline until you are out of the current. Then swim toward shore.
  - If you cannot swim out of the current, float on your back or tread water.

- How can you prevent a problem if the waves are very high?

**Answer:** Responses should include the following:

- Stay on the shore.
- Ask the lifeguard if swimming is safe.
- Look before you leap.

**Leader's Note:** Have students complete Activity Sheet 3-3: Think Before You Jump In. (Activity Sheet 3-3A can be used for young children; Activity Sheet 3-3B can be used for older children.)

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## TOPIC: WATER POLLUTION AND AQUATIC LIFE

### Key Points and Discussion

- What is water pollution?

**Answer:** Dirty, unsafe water

- Three sources of water pollution are:
  - Oil spills.
  - Trash in the water.
  - Dumping of waste and chemicals.
- Water pollution affects all of us and it affects aquatic life, which is life that exists in bodies of water.
- All creatures depend on each other.
- In a food chain, living things each use lower members as a source of food. For example, in the ocean food chain, big fish eat small fish and small fish eat tiny fish or plants such as seaweed.
- Some animals eat both plants and animals.
- If pollution harms a lower form of life, it affects every other form of life in the food chain, including humans.
- We need to look out for pollution in our water and swimming environments and do our best to keep the water clean.

**Leader's Note:** Have students complete Activity Sheet 3-4: Ocean Food Chain.

## Trash

### Key Points and Discussion

- Trash in the ocean is a huge problem.
- Much of the litter is from land, either dumped directly into waterways or blown into rivers and streams.
- As people use more plastic products, more plastic items are found in the oceans. These products include things like bags, Styrofoam cups, bottles and balloons.

- As plastic breaks down (decomposes) in the water, harmful chemicals are released.
- Plastic is often mistaken for food by aquatic animals.
  - Plastic material has been found blocking the breathing passages and stomachs of many ocean creatures, including whales, dolphins, seals, puffins and turtles.
  - Sea turtles like to eat jellyfish and sometimes think a plastic bag is a jellyfish.
- Plastic six-pack rings for drink bottles can choke aquatic animals.
- Plastic bags can get wrapped around the necks or fins of animals.
- What can you do to help clean up our beaches and lakes?  
*Answer: Never leave trash on the beach. Never throw trash in the water, especially plastic. Pick up trash that others have left.*

## Water Birds

### Key Points and Discussion

- Many birds live on or around water. They find their food in the water.
- Aquatic or water birds have special features such as:
  - Webbed feet to help them swim.
  - Buoyancy, which is the ability to float.
  - Waterproof feathers to keep them warm.
  - The ability to dive underwater to get food.
- Some examples of aquatic birds include ducks, penguins, swans, puffins.
- Some birds live near freshwater and some live out at sea.
- Some aquatic birds, such as ducks and swans, eat waterweeds.
- Some aquatic birds live at sea and eat fish or plankton.
- What do you think happens when there is an oil spill in an ocean?  
*Answer: The oil can cause destruction to ocean creatures and to beaches where animals and seabirds live. It can affect the animals' buoyancy.*
- What is your prediction, or hypothesis, about what would happen to a seabird covered in oil?  
*Answer: He would lose his buoyancy (ability to float). He may not be able to fly.*
- We are going to do an experiment to see how oil affects the feathers of seabirds.

### Activity

- Hold up a feather and say to the students, "Imagine that this feather is a seabird in the ocean."
- Hold up a clear plastic cup of clean water.
- Dip the feather in water.

- Ask, “What happens to the feather in clean water?”

**Answer:** *Water runs right off.*

- Hold up a clear plastic cup of motor oil.
- Dip the feather in motor oil.
- Ask, “What happens to the feather in oil?”

**Answer:** *The feather gets dirty and sticky.*

**Leader’s Note:** *Show students how the barbs of the feather are stuck together.*

- Ask, “What does this mean for the bird?”

**Answer:** *Responses should include the following:*

- *The bird may not be able to fly.*
- *The bird may not be able to float.*
- *The bird’s food supply may become toxic.*
- *The bird could die.*

**Leader’s Note:** *Have students complete Activity Sheet 3-5: Help the Whale.*

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## TOPIC: LOOK AT YOURSELF

### Key Points and Discussion

- Look at yourself, too, before you leap into the water.
  - Make sure you have put on your sunscreen.
  - Make sure that your feet are protected from rough surfaces by wearing water shoes.

- Why is wearing sunscreen important?

**Answer:** *It protects your skin against harmful rays and helps prevent skin cancer and sunburn.*

- How often do you apply sunscreen?

**Answer:** *At least every 2 hours and before and after swimming.*

- Why is it important to wear water shoes?

**Answer:** *Responses should include the following:*

- *They help protect your feet from harmful aquatic life or rocks in the water.*
- *They help protect your feet from rough surfaces on the bottom of a pool.*
- *They help protect your feet from hot sand.*



## Activity

- Have students stand up and put their hands over their eyes as a shield.
- Say to students, “Look” and have them look around.
- Have students say in unison several times, “Look before you leap.”
- Say to students:
  - “Thumbs up if you have your buddy.”
  - “Thumbs up if you are in a supervised area.”
  - “Thumbs up if the water looks clean and safe.”
  - “Thumbs up if you are wearing sunscreen.”
  - “Thumbs up if you are wearing water shoes.”
  - “You are now ready to swim.”

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## TOPIC: WRAP-UP

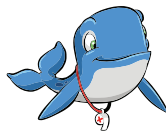
*Leader’s Note: Refer back to the poster, Look Before You Leap, as you review the lesson.*

## Discussion

- Why should you look before you leap? What are some things you should look for before you swim anywhere?

**Answer:** Responses should include the following:

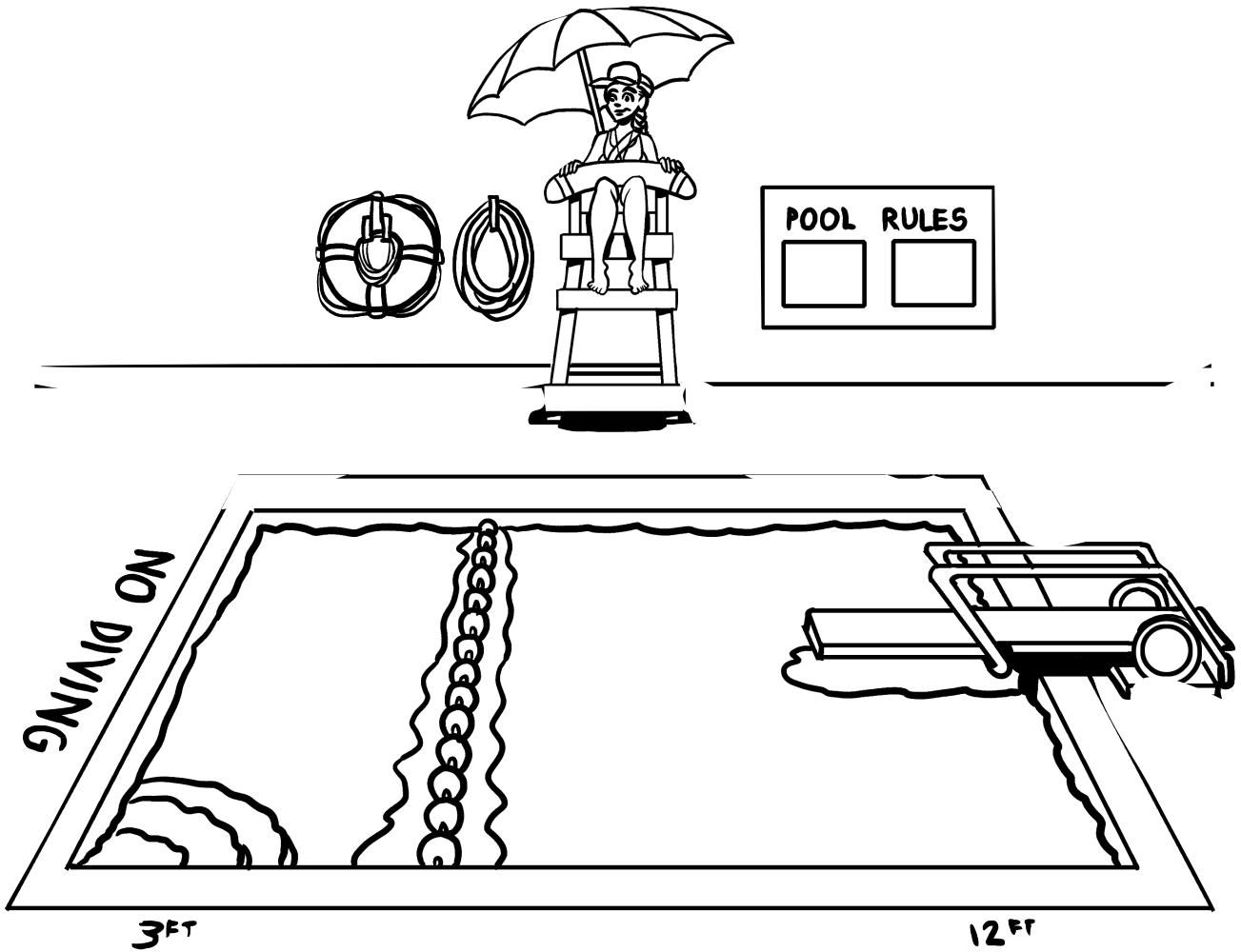
- Swim in a supervised area, which is an area that has a lifeguard on duty.
  - Make sure there is safety equipment.
  - Look around to make sure the water is safe.
  - Check the temperature of the water.
  - Know how deep the water is.
  - Look out for large waves or currents.
  - Look out for pollution or litter.
  - Check that the bottom is free from sharp objects.
  - Be on the lookout for harmful aquatic life.
  - Look at yourself and make sure you have sunscreen and water shoes.
- Remember to look before you leap!

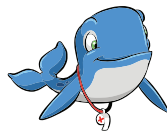


# Check It Out

Name: \_\_\_\_\_

Here is a supervised swimming area. Put a check mark by the things you should look for before you go swimming.

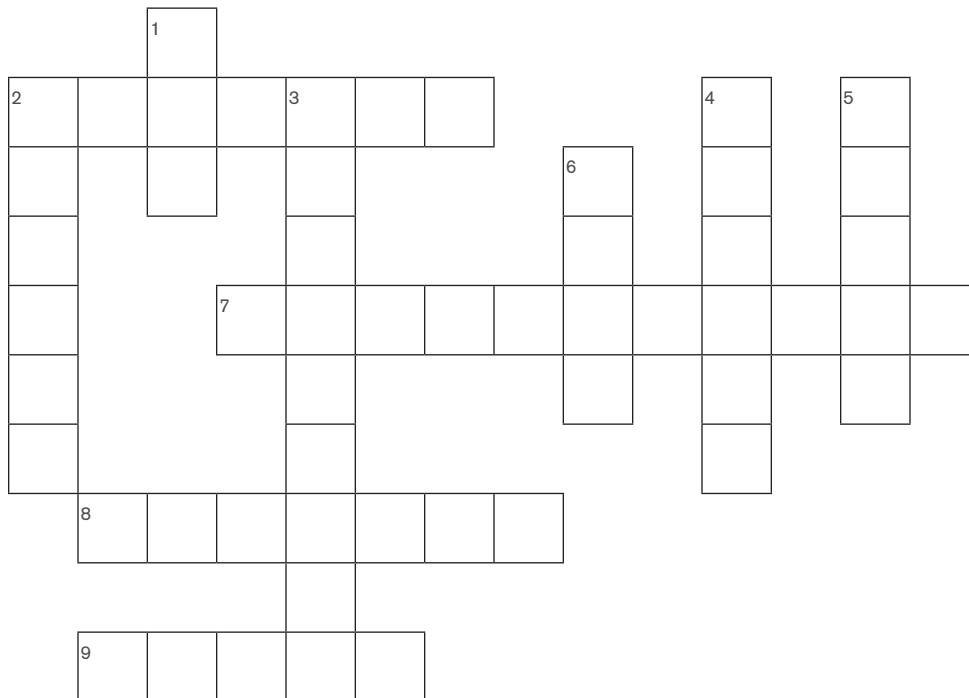




# Watch Out

Name: \_\_\_\_\_

Fill in the missing word in each sentence below. Then enter the word in the correct spaces on the crossword puzzle.

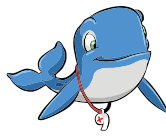


## Across

2. Do not dive in \_\_\_\_\_ water.
7. Make sure the water \_\_\_\_\_ is comfortable.
8. Be on the lookout for \_\_\_\_\_ life.
9. Make sure the bottom is free of \_\_\_\_\_ and free of grass.

## Down

1. Do not swim close to a \_\_\_\_\_.
2. \_\_\_\_\_ equipment should be available.
3. A \_\_\_\_\_ should be on duty.
4. At a pool, the water should be clear enough to see the \_\_\_\_\_.
5. The bottom should be free from \_\_\_\_\_ objects.
6. Make sure the bottom is \_\_\_\_\_ and gently sloping.

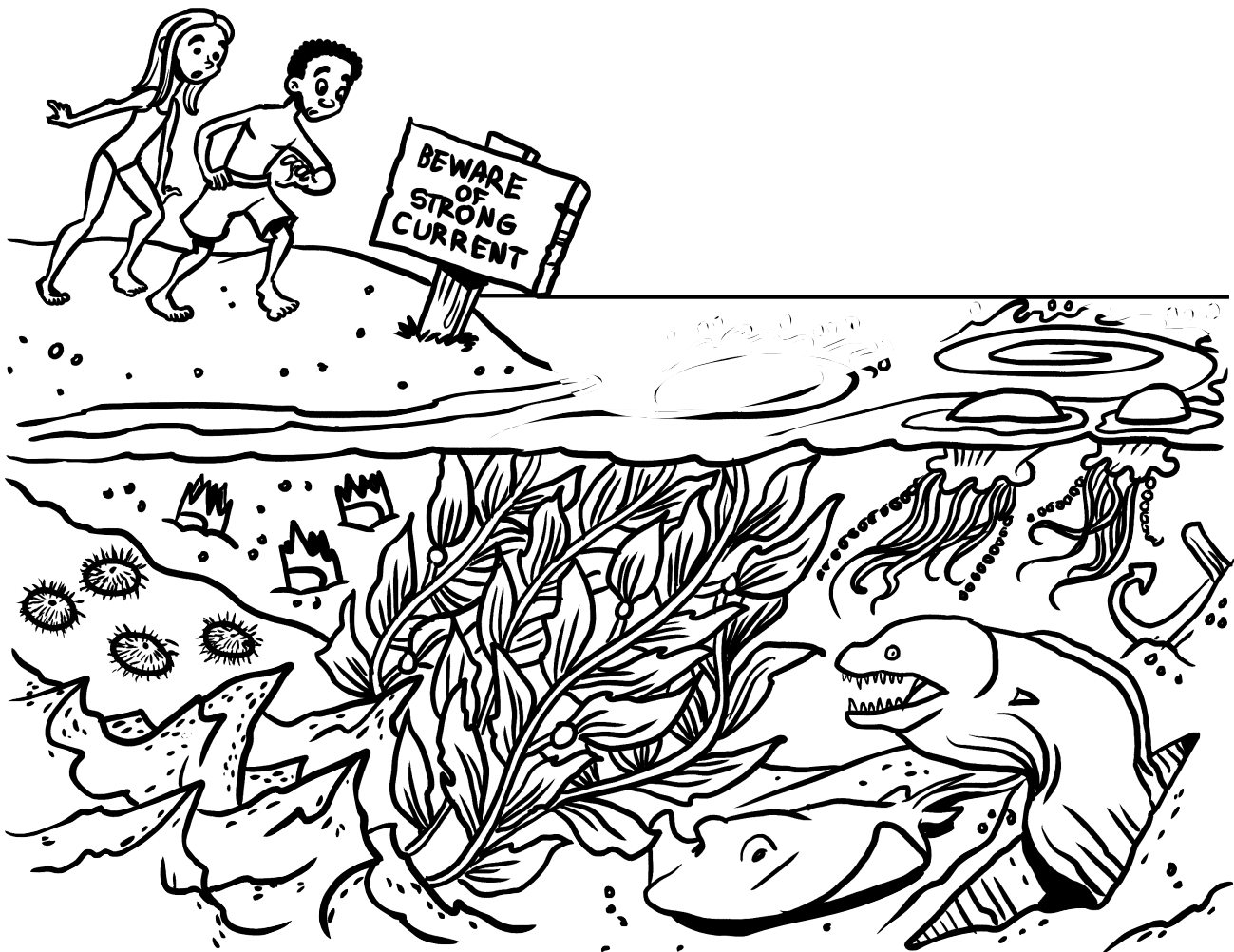


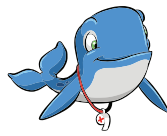
# Think Before You Jump In

Name: \_\_\_\_\_

**Color the following objects that could be harmful for swimmers:**

- sea urchin    jellyfish    broken glass    sharp objects    patch of weeds    rocks  
stingray    eel





# Think Before You Jump In

Name: \_\_\_\_\_

Find the hidden words listed below. They describe things you should consider before you go in the water. The words can run across or down.

s a f e t y e q u i p m e n t a  
f y q a d o x c b e i v y i v q  
d y f g t l s t u m p s a l b u  
i t j x c e e p t c k j b i m a  
s w y b u h r e s g c u r f t t  
i x z r r y t c q t r v h e r i  
g t m o r w e w l i u u d g h c  
n e w k e b m q s m a m q u e l  
s z w e n v p w u e r s p a d i  
r d g n t q e w b i r i u r d f  
z e u g s a r j f f p s t d b e  
g p s l v u a z y m l m t y j i  
n t l a p l t d t v h r e m t b  
n h n s g a u o w e e d s n c u  
d l x s g o r z c g h y k p t e  
i w e b h q e y m d w t u i s n

## Word List

aquatic life

depth

stumps

weeds

broken glass

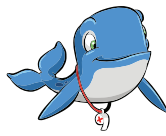
safety equipment

temperature

currents

signs

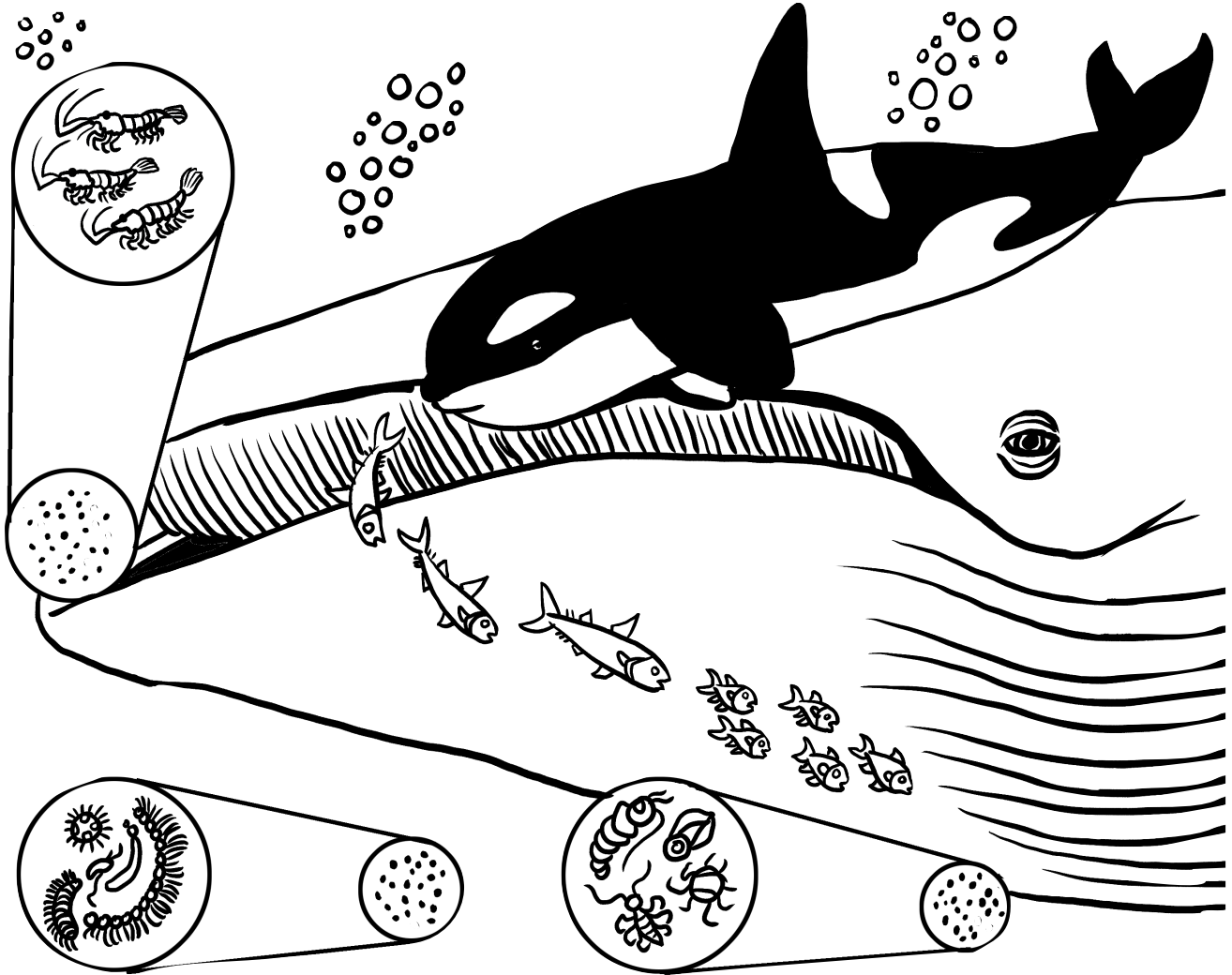
lifeguard



# Ocean Food Chain

Name: \_\_\_\_\_

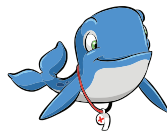
Color the ocean creatures. Explain the food chain on the lines below the picture.



\_\_\_\_\_

\_\_\_\_\_

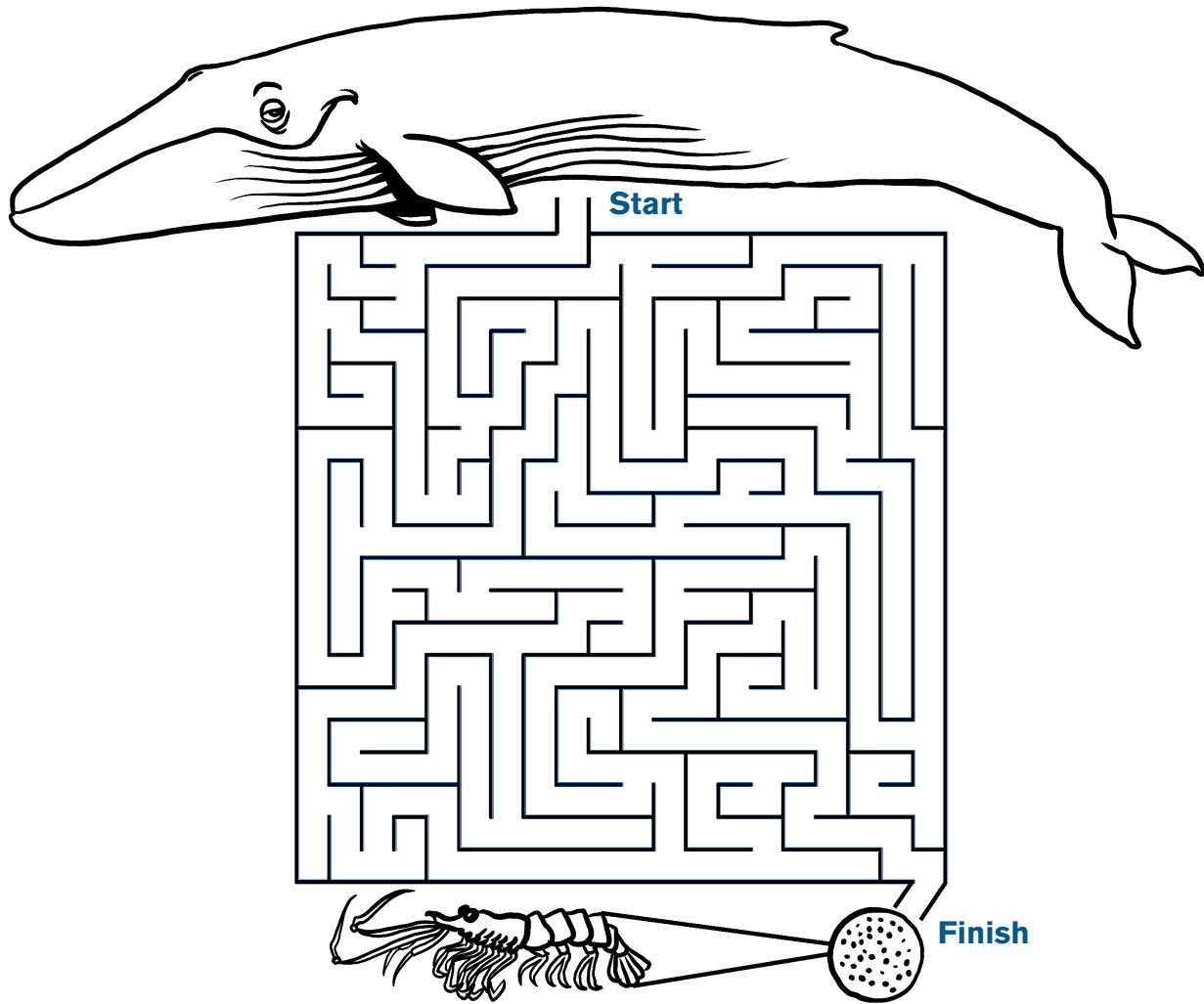
\_\_\_\_\_

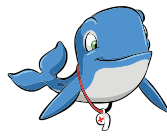


# Help the Whale

Name: \_\_\_\_\_

Help the blue whale find krill to eat. Draw a path from "Start" to "Finish" but do not cross any lines.

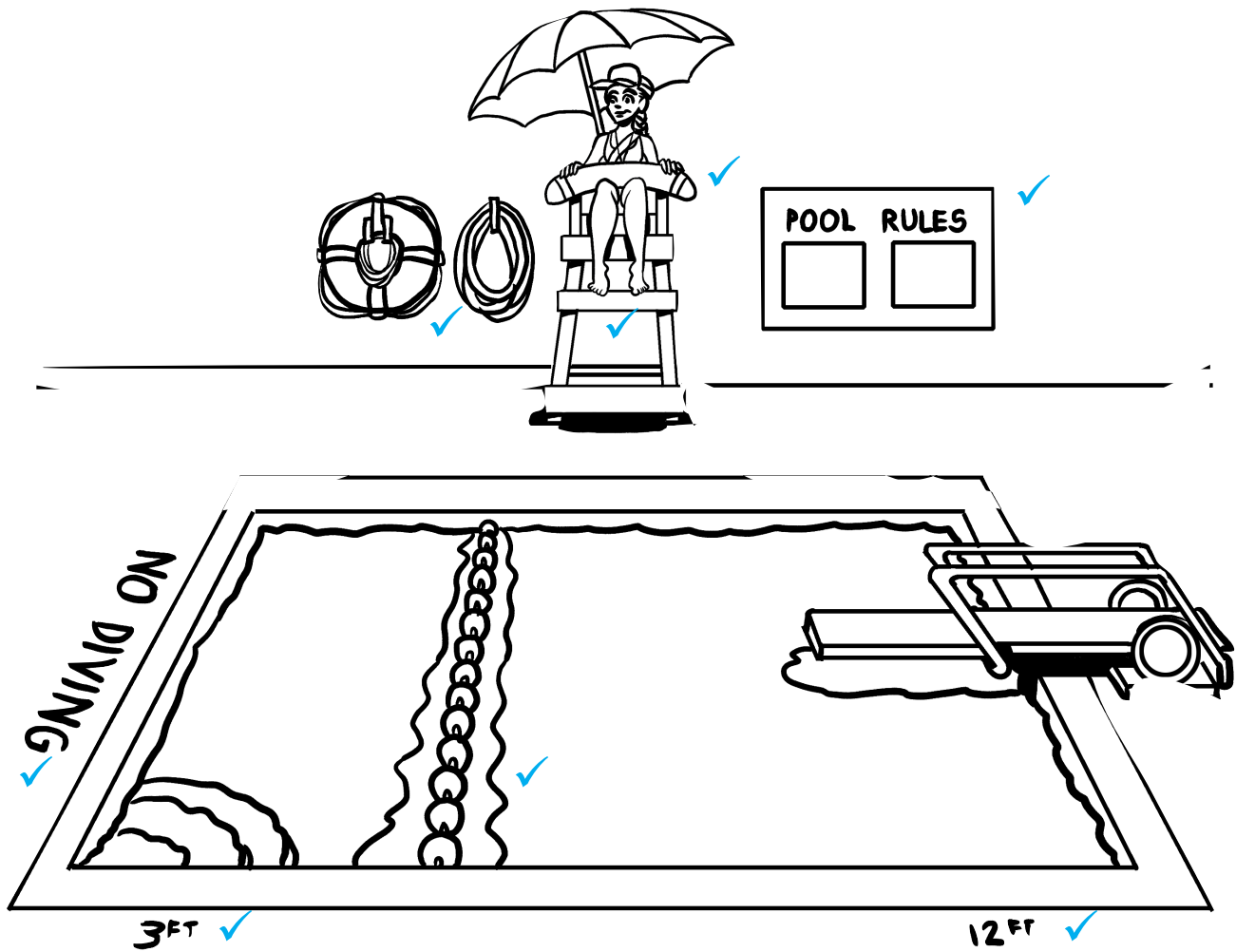




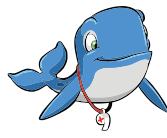
# Check It Out

Name: \_\_\_\_\_

Here is a supervised swimming area. Put a check mark by the things you should look for before you go swimming.



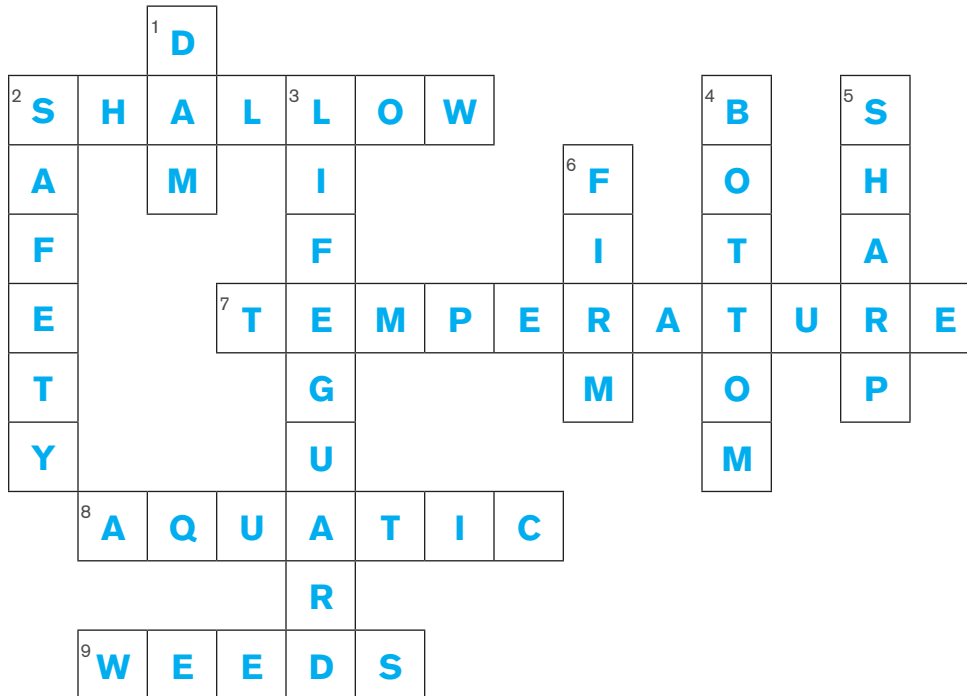




# Watch Out

Name: \_\_\_\_\_

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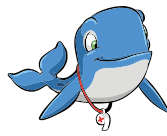


## Across

- Do not dive in \_\_\_\_\_ water.
- Make sure the water \_\_\_\_\_ is comfortable.
- Be on the lookout for \_\_\_\_\_ life.
- Make sure the bottom is free of \_\_\_\_\_ and free of grass.

## Down

- Do not swim close to a \_\_\_\_\_.
- \_\_\_\_\_ equipment should be available.
- A \_\_\_\_\_ should be on duty.
- At a pool, the water should be clear enough to see the \_\_\_\_\_.
- The bottom should be free from \_\_\_\_\_ objects.
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# Think Before You Jump In

Name: \_\_\_\_\_

Find the hidden words listed below. They describe things you should consider before you go in the water. The words can run across or down.



## Word List

aquatic life

depth

stumps

weeds

broken glass

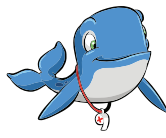
safety equipment

temperature

currents

signs

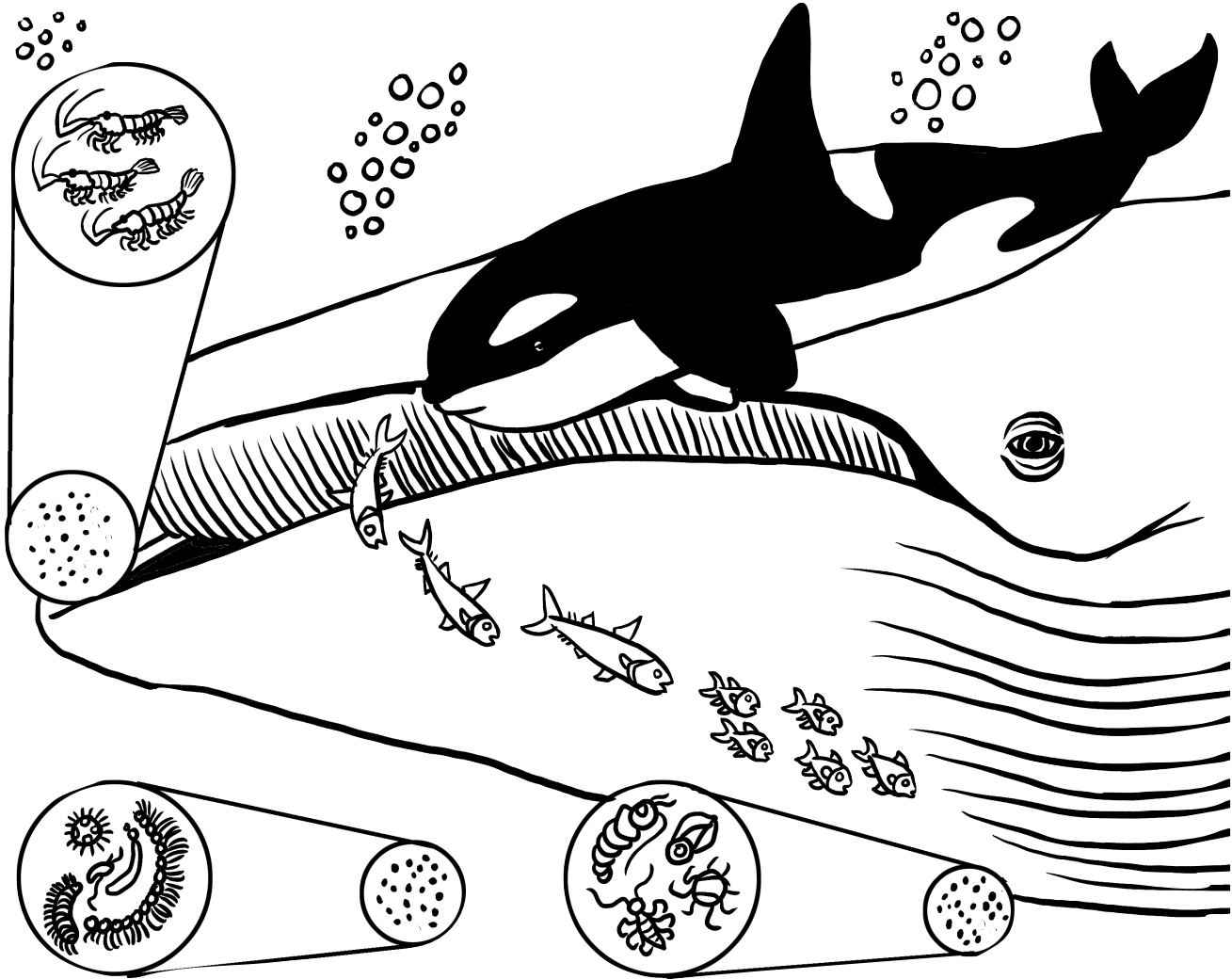
lifeguard



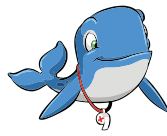
# Ocean Food Chain

Name: \_\_\_\_\_

Color the ocean creatures. Explain the food chain on the lines below the picture.



*In a food chain, living things each use lower members as a source of food. For example, in the ocean food chain, big fish eat small fish and small fish eat tiny fish or plants such as seaweed.*



# Longfellow's Safety and Rescue Equipment Information

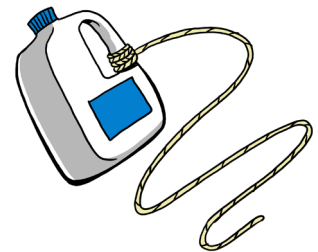
## Safety and Rescue Equipment

When helping someone in the water, it is always best to reach or throw, don't go. This is because only someone who is trained in water rescue, such as a lifeguard, should go in the water to help someone who is having trouble. Rescue equipment is used to help someone in the water. It can be used without going into the water.

Safety equipment helps keep people safe. Every swimming area should have safety equipment and rescue equipment.

## Heaving Jug

A homemade, emergency throwing device made from a 1-gallon plastic container with ½ inch of water inside and a line attached to the handle.



## Ring Buoy

A ring that floats and has 40 to 50 feet of lightweight line attached. The ring is thrown by the rescuer to someone in trouble in the water. A handle or object on the end of the line prevents it from slipping out of the rescuer's grasp.

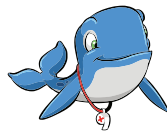


## Heaving Line

A strong, lightweight line, 40 to 50 feet long. A weighted object that floats is attached to one end. This helps direct the line out to the person in the water when it is thrown.



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# Longfellow's Safety and Rescue Equipment Information

## Throw-Rope Bag

A nylon bag containing line (rope) that floats. It is a throwing device often used to rescue someone who has fallen from a boat.



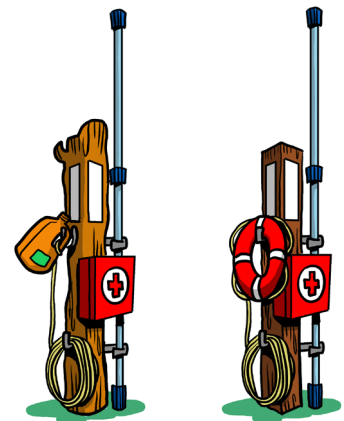
## Reaching Pole

A pole, 10 to 15 feet long, made of bamboo, aluminum or fiberglass. It is extended into the water to help someone in trouble. A long tree branch or fishing pole could serve the same purpose.



## Safety Post

A post with reaching and throwing devices attached. It is usually located at home pools or private ponds.

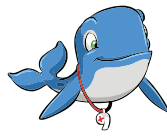


## Rescue Tube

A vinyl, foam-filled floating support, approximately 45 to 54 inches long. It has a towline with a shoulder strap attached. It may be used as a throwing device.



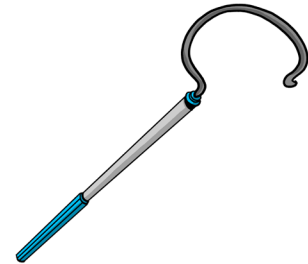
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# Longfellow's Safety and Rescue Equipment Information

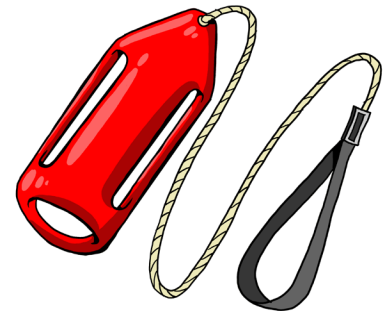
## Shepherd's Crook

A long, lightweight pole with a rounded hook at one end. It is used as a reaching pole or to encircle an unconscious victim in the water.



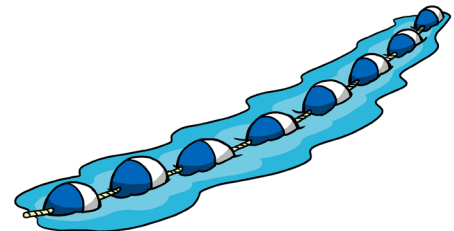
## Rescue Buoy

A hard, plastic buoy with handles on the sides. It has a towline with a shoulder strap attached. It is used by waterfront lifeguards when making a swimming rescue.



## Lifeline

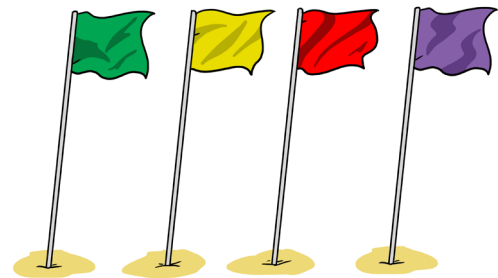
Floating line that marks and separates swimming and diving areas and shallow and deep water.



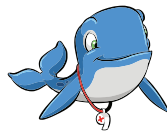
## Warning Flags

Flags of various colors that describe safety conditions in the water. Here are some examples:

- Green Flag—safe, open for swimming
- Yellow Flag—caution, limited swimming because of currents or other conditions
- Red Flag—unsafe, closed for swimming
- Purple Flag—dangerous marine life



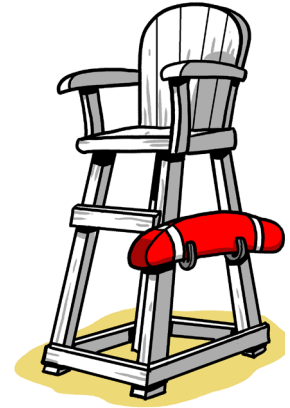
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# Longfellow's Safety and Rescue Equipment Information

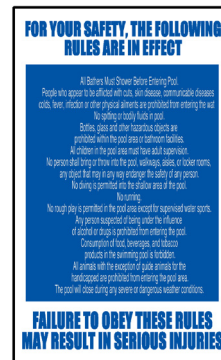
## Lifeguard Chair

A lifeguard chair is a tall chair where a lifeguard sits, keeping an eye on swimmers and the water. The height of the chair allows the lifeguard to have an unblocked view of the water they are guarding, and it allows them to watch swimmers carefully for signs of distress. There is usually a ladder attached to one side that can be easily climbed. The tall chair helps people find a lifeguard if there is an emergency.



## Posted Rules

Rules posted near supervised swimming areas. They contain facility rules and warnings.



## Phone

Communication devices such as phones, two-way radios or megaphones are important safety items.

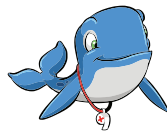


## First Aid Kit

A first aid kit has supplies to care for someone who is sick or injured.



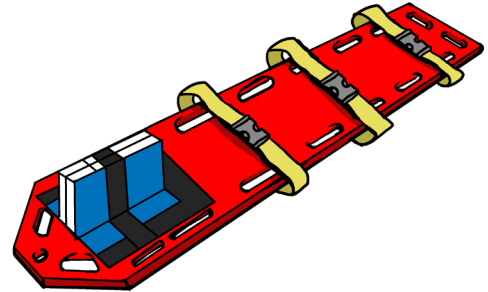
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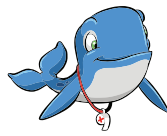
# Longfellow's Safety and Rescue Equipment Information

## Backboard

A board that is used for a person with a possible head, neck or spinal injury. It keeps the person from moving in order to avoid further injury.







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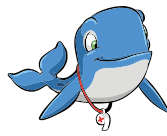
# Longfellow's Rules for Safe Diving

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## Diving Safety

Head, neck or spinal injuries can happen if safe diving principles are not followed. The following guidelines are recommended for safe diving:

- Learn how to dive safely from a qualified instructor.
- In a headfirst dive, extend the arms with your elbows locked alongside the head.
- Hold your hands together with the palms facing toward the water. The hands must enter the water first. This keeps the water from hitting the top of the head too hard and helps protect from injury.
- A diver's body should be tensed and straight from the hands to the pointed toes.
- Follow safety rules at all times—never make exceptions.
- Do not wear earplugs; pressure changes make them dangerous.
- Obey “No Diving” signs. They are there for safety.
- Dive only in designated diving areas.
- Be sure of water depth and that there are no objects in the water.
- When entering water for the first time, ease in or walk in; do not jump or dive.
- Never dive into an above-ground pool, the shallow end of any in-ground pool or at a beach.
- Never dive into cloudy or murky water.
- In lakes, rivers or other bodies of water, always check first for objects under the surface, such as logs, stumps or rocks.
- Check the shape of the pool bottom to be sure the diving area is large enough and deep enough for the intended dive.
- The presence of a diving board does not necessarily mean it is safe to dive. Pools at homes, motels and hotels might not have a safe diving area.
- Dive only off the end of a diving board. If you dive off the side of a diving board, you could hit the side of the pool or enter water that is not deep enough.
- Do not bounce more than once on the end of a diving board. You could miss the edge or slip off the diving board.
- Do not run on a diving board or attempt to dive a long way through the air. The water might not be deep enough at the point of entry.
- Swim away from the diving board after entering the water. Move out of the way of the next diver quickly.
- Never use drugs or alcohol when diving.
- Do not wear swimming goggles when diving.
- Stay away from pool drains! If a pool drain is not secured properly, suction can pull hair, clothing, jewelry or a body part into the drain or trap a person.



# Longfellow's Tips on Currents and Dams

## Types of Currents and How to Escape Them

### River Rapid

What it is: White water, fast-moving water; unpredictable.

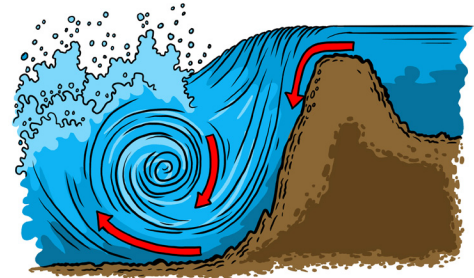
How to escape: Roll over onto your back and go downstream feetfirst to avoid hitting your head. Back paddle with the arms and try to steer away from the main current. Once out of the main current, swim or wade directly toward shore. Because of the current, this will result in a slightly downstream path.



### Hydraulic Current

What it is: A strong force created by water flowing downward over an object and then reversing its flow. The reverse flow can trap and hold a person underwater.

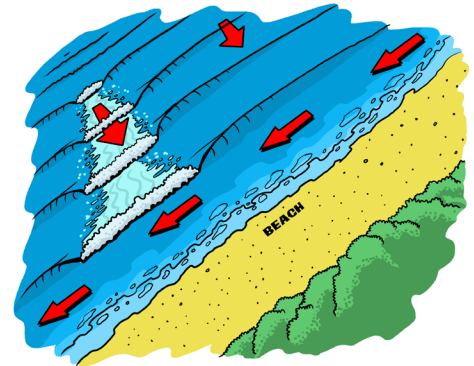
How to escape: Swim to the bottom and get into the downstream current. Then reach the surface.



### Longshore Current

What it is: A longshore current moves along the shore, carrying a swimmer farther down the beach.

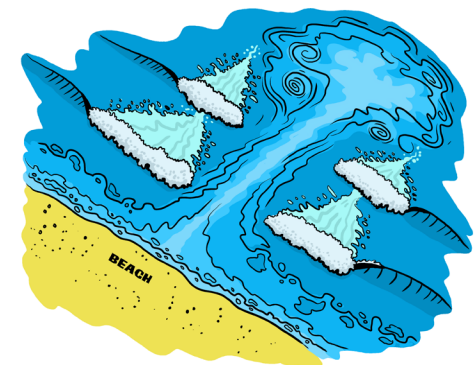
How to escape: Try to swim toward shore while moving along with the current. You will eventually get to shore, although you may be some distance from where you entered the water.



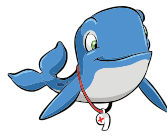
### Rip Current

What it is: A rip current moves straight out to sea beyond the breaking waves. Rip currents can carry a swimmer into deep water.

How to escape: Swim along the shore until you are out of the current. Once you are free, turn and swim toward the shore.



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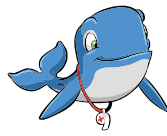
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# Longfellow's Tips on Currents and Dams

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## Dams

- No dam is ever safe. Never swim or boat near a dam.
- A dam is a barrier built across a river, stream or creek to control the flow of water.
- Some dams can create powerful hydraulic currents. Boats and canoes have been caught in such hydraulic currents.
- When floodgates open, the water level can rise quickly below the dam and can create a dangerous wall of water.
- The current created when the dam is opened can pull anyone or anything (including boats) above the dam into danger.
- Always check out rivers and lakes before swimming or boating so you won't find yourself too close to a dam.
- Obey warning signs and warning signals immediately.



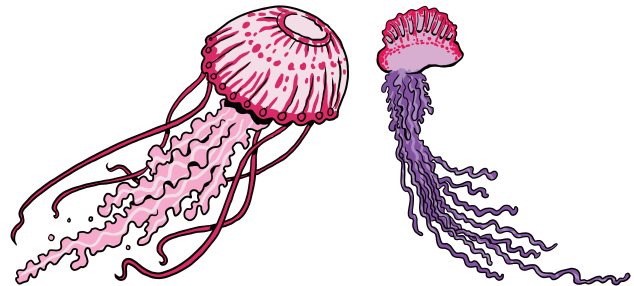
# Longfellow's Aquatic Life Facts

## Weeds

Weeds, grass and kelp are usually not a problem for swimmers. However, an inexperienced swimmer who swims into a patch of weeds could become entangled. If the swimmer then tries to get free by moving wildly, the weeds could wrap securely around the arms and legs. Gentle shaking and pulling arms and legs out slowly will clear the weeds.

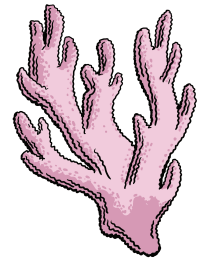
## Jellyfish and Portuguese Man-of-War

Jellyfish or Portuguese man-of-war stings can be painful, and they can make a person feel sick. The side effects of a sting can include allergic reactions that can cause breathing or heart problems. Swimmers should avoid these creatures in the water and on the beach.



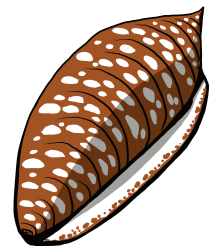
## Coral

Coral can cause multiple cuts. These cuts require thorough cleaning and possibly medical attention. Avoid swimming in areas where coral may cause a problem.



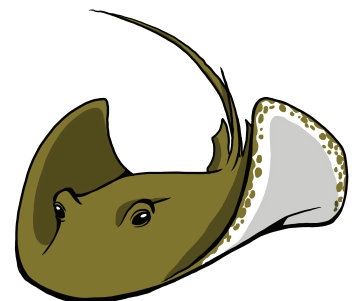
## Cone Shells

The cone shell is related to the snail. It can puncture the skin and inject venom (poison) through the cut. Cone shell poisoning can cause numbness and tingling around the nose and mouth, paralysis and even death. Wounds from cone shells need immediate medical attention. Swimmers should avoid picking these shells up from the bottom of the ocean.

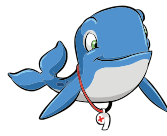


## Stingray

Stingrays do not normally attack people but will sting if they are accidentally stepped on. Stingrays have a stinger at the base of the tail that has venom (poison). If a person steps on the stinger, they will get a cut or puncture wound that can be very painful. The venom can cause faintness, weakness, sweating, vomiting, diarrhea or muscle cramps. Wounds from stingrays need medical attention. When entering the ocean, swimmers should shuffle their feet. This will cause stingrays to swim out of the area.



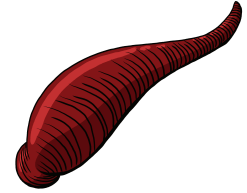
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# Longfellow's Aquatic Life Facts

## Leeches

Leeches are more of a nuisance than a danger. Leeches are found in freshwater areas, especially in murky (dark) or muddy water.



## Sharks, Barracuda, Moray Eels

Being bitten by a shark, barracuda or moray eel can cause serious injury. The best protection is to swim in a supervised area where someone is on the lookout for dangerous aquatic animals.

## Snakes

Snakes normally avoid people. Swimmers should not try to corner or chase a snake, and they should always check carefully for snakes under a boat before moving it or turning it over.

## Sea Urchins

Sea urchins, found in the ocean, are covered with sharp brittle spines (points). If handled or stepped on, the spines can puncture a person's hand or foot and can be quite painful. Some sea urchins are poisonous. Swimmers should not pick up sea urchins and should be careful not to step on them.

## What to Do If You Encounter an Aquatic Animal

If you come across an aquatic animal in or out of the water and you suspect it could be harmful, you should:

- Leave it alone. Do not touch it.
- Move away slowly.
- Note its exact location and tell the lifeguard or an adult.

## How to Prevent Stings and Bites

Your best protection against stings and bites is to learn about aquatic animals and their habitats. If you can recognize the dangerous ones and you know where they live, you will know what to stay away from.

If you are bitten or stung by an aquatic animal, call for help immediately.