

GROW YOUR PALS PROGRAM GUIDE



THE NATIONAL FFA MENTORING PROGRAM

Sponsored by



LESSON 1.41

Freshwater Ponds

Unit:
ENVIRONMENTAL SCIENCE

PRECEPTS

- B. Relationships
 - B2. Interact and work with others



Lesson Type:
Small Group

NATIONAL STANDARDS

- CS.08.02.01.a. Use the appropriate procedures for the use and operations of specific tools and equipment.
- NRS.02.04.03.a. Identify characteristics of a healthy wildlife habitat.
- NRS.01.02.03.b. Identify wildlife species.
- NL-ENG.K-12.12 – Applying Language Skills
- NS.K-4.3 – Life Science

STUDENT LEARNING OBJECTIVES

As a result of this lesson, the student will ...

- Identify pond *habitat*.
- Identify *food chain* and identify six types of life in a pond.
- Make an edible pond *habitat*.





TIME

Instruction time for this lesson: **45-60 minutes**



RESOURCES

National FFA Organization. (2003). LifeKnowledge Precepts and Signs of Success.

http://www.ehow.com/how_5511573_make-edible-aquarium-science-class.html

<http://www.bulkfoods.com/gummy.asp>

<http://www.sugarcraft.com/catalog/candymolds/M-animals/M-animals.htm>

<http://www.enchantedlearning.com/pgifs/Pondanimals.GIF>



TOOLS, EQUIPMENT AND SUPPLIES

- ✓ **Clear plastic cup** – one per student
- ✓ **Spoons** – one per student
- ✓ **Skittles for gravel** – one per group of four
- ✓ **Blue Jell-O for water**; make ahead of time in a large bowl and scoop out into clear cups – one scoop per student
- ✓ **Swedish fish** – two per student
- ✓ **Green coconut for plant life**, sprinkle on top of pond sparingly. Suggestions--if you can not find pre colored coconut just put coconut in a large Ziploc bag and drop green food coloring inside, close and shake until all is generously covered.
- ✓ **Black licorice dots for insects** – two per student.
- ✓ **Gummy frogs** (*may need to order online.*) – one per student
- ✓ **Gummy worms** – one per student
- ✓ **Duck Sweet Tarts** (*may be only an item you can find seasonally*) – one per student
- ✓ **Baggies for candy** – one per student
- ✓ **Velcro for each picture of food chain** – included in lesson, assemble prior to lesson
- ✓ **Poster board for Food Chain Activity** – template included in lesson, make prior to lesson
- ✓ **Pencils or writing utensils** – one per student
- ✓ **PALS1.41.SG.AS.A** – one cut up into seven pieces
- ✓ **PALS1.41.SG.AS.B** – one per student
- ✓ **PALS1.41.SG.ASSESS.A** – one per student

KEY TERMS



The following terms are presented in this lesson and appear in ***bold italics***:

Habitat

Food Chain



CONTENT OUTLINE

Objective 1. | Identify pond *habitat*.

- A. A still body of water where many plants and animals live

Objective 2. | Identify *food chain* and identify six types of life in a pond.

- A. The order animals feed on other plants and animals
- B. Fish, turtles, frogs, insects, plants and ducks

Objective 3. | Make an edible pond *habitat*.

- A. Clear plastic cups
- B. Spoons
- C. Skittles for gravel
- D. Blue Jell-O for water (make ahead of time in a large bowl and scoop out into clear cups)
- E. Swedish Fish
- F. Green coconut for plant life, sprinkle on top of pond sparingly
- G. Black licorice dots for insects
- H. Gummy frogs (may need to order online)
- I. Gummy worms
- J. Duck Sweet Tarts (may be only an item you can find seasonally)

INTEREST APPROACH

Walk like a turtle, swim like a fish, wave like a plant underwater, buzz like a fly, quack like a duck game. Play like Red Light, Green Light. When you say a command the students will show that body movement.



How many of you have ever been to a pond? When I was a student just like you we had a pond down the road from my house. We would go down to the pond to play in the water and try to catch some of the creatures that lived there. What do you think we were catching?

Elicit responses such as bugs/insects, frogs, turtles, fish.



You bet. We would put them back because my mom did not like us bringing them home. What else might have been in that pond?

Elicit responses such as plants and water (of course!)

Modified Motion e-Moment®



Today we are going to learn just what lives in a pond and how they survive.

Before we get started let's play a little game! In this game there are frogs, turtles, ducks, bugs, and plants. Fish will make fish lips and put your hands together in front of you like you are swimming. Frogs will hop and rabbit. Turtles will lie on their backs with their arms and legs out. Ducks will waddle and quack. Bugs will buzz and fly with our arms out. And plants will keep our feet still like they are roots put our hands above our heads and wave in the water.

Demonstrate the movements as you explain them.



Let's practice. Show me what a frog will do. A turtle, a duck, a bug, a plant, and a fish.

Great job. Here's how the game will be played. I will call out an animal and you will show me what action they make. If you make the wrong move you have to sit down. The last person standing will be our winner!!

Call out animals until you have one or two students remaining. Celebrate them!



Let's give our friends a round of applause.

You may have to teach them how to clap in a circle "round of applause."



Today we are going to explore what a pond might look like by learning who and what lives in them. Then, we'll end our pond exploration with some special eats.

SUMMARY OF CONTENT AND TEACHING STRATEGIES

OBJECTIVE 1. | Identify pond *habitat*.



Let's come up with a good way to describe a pond **habitat**. What do we know about the life in a pond?

Elicit response – plants and animals like insects, plants, amphibians and reptiles, birds, fish and plant life.



What do we know about the water?

Elicit response –it is still. The water always stays there it doesn't connect to a river, creek or ocean.



That's right. We can say that a pond is a still body of water where many plants and animals live. This is what we call a pond **habitat**. Just like a habitat has to work together so will we as we learn about the food chain in just a moment.



Know that you can use their words in this definition as long as it is the same concept.

OBJECTIVE 2. | Identify *Food Chain* and identify six types of life in a pond.



What do we need in our own **habitats**? What do we need to stay alive?

Elicit response such as food, water and clothing.



Pond life needs food and water too, they don't need clothing though! The water is already there, but where does their food come from? Raise your hand if you have some ideas about what the plants and animals eat in a pond?

Elicit response such as some animals eat plants and some eat other animals.



You are right on. There is an order that animals and plants follow to find food. Here is a picture of an order of a **food chain** that might happen in a pond. Oh no, it's blank. We will need each other's help to put the pictures in order here.

Show poster board. Identify seven volunteers each with one picture of pond life. We are studying today PALS1.41.SG.AS.A



Let's try to put the pictures in the correct order. Each volunteer will get one chance to put their picture in the correct place. You have 30 seconds to complete this task. Questions? Time begins now.

Give 30 seconds.



Great job, let's see if we've created a **food chain**?

To review the **food chain** use and *Hieroglyphics e-Moment®*. Hand out PALS1.41. SG.AS.B to record pictures of **food chain**. One per student, make sure they have a writing utensil available.



Now let's draw our own food chain on the paper we are now receiving. Draw one image that represents each stage of the **food chain**. We will have six minutes



One minute remaining.

Nice work!

OBJECTIVE 3. | Make an Edible Pond *Habitat*.



I just heard my tummy rumble and I am sure it is getting close to snack time. Raise your hand if you agree? Great! I think I know just the solution. In a moment we are going to create our very own edible pond, using all the information we have learned today.

Before we can assemble our own ponds let's make one together. You can help me by sharing what is in the pond. Think in your minds what would we probably find on the very bottom of the pond that would be like the floor?

Elicit response of gravel or some type of rocks.



I am going to use skittles today as my gravel. I will just lay a few down here. What comes next?

Elicit response of water.



Right. We will use some blue Jell-O as our water today. I will just scoop some right over the gravel. Then we need add some of the pond life. I brought today some fish (*hold up Swedish fish*), insects (*hold up licorice dots*), ducks (*hold up sweet tart candies*), frogs (*hold up frogs*), worms (*hold up worms*), and some plants (*hold up green coconut*).

Each of you will get a baggie with all the ingredients you will need as well as a cup and spoon. You will lay down the skittles, and I will scoop in your Jell-O! Once the Jell-O is in, you can stick in the rest of the pond life. Have fun and enjoy your snack!



Distribute supplies and help with the scooping of the Jell-O. As they eat their snacks you can begin the review.



REVIEW/SUMMARY/ EVALUATION

Use Motion Moment® to review motions from beginning activity. fish, frog, bug, turtle, duck and plant. Have a student call out motions from earlier or one of the mentors



Let's review the components of our habits using the motions from our first activity.

Call out the different components and model the motions while the PALS do them with you.



Thanks. I am so excited about all we learned today. Ponds are not just a fun place for us to visit but they are home to many different plants and animals.

APPLICATION



Large Group Idea

Locate a pond nearby. Take a field trip out to the pond and identify animals found in the pond.



One-on-One Suggestion

*Create a pond T-shirt. Have your PAL bring in a white t-shirt, or you can purchase one for them. Discuss a pond **habitat**. Find pictures of pond life and trace onto sponges. Cut them out. Use fabric paint and sponges to create a pond life scene on the T-shirt! Allow time to dry.*



PALS1.41.SG.ASSESS.A | EVALUATION ANSWER KEY

Draw a picture with the following six items located in the correct locations.

ANSWER TO EVALUATION:

Fish – in pond

Frog – in pond or on bank

Insect – on top of water, on bank or in water (depending upon insect)

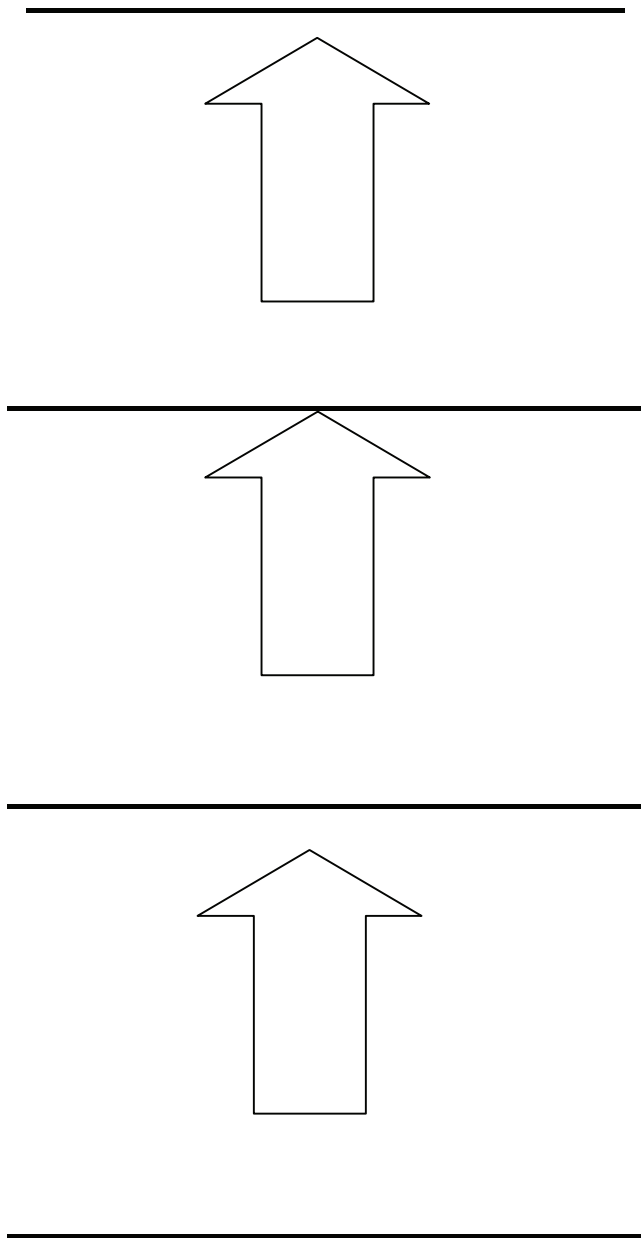
Duck – on top of water or in the air

Plants – on bank or underwater (depending upon plant)

Worm – in ground or on top of ground

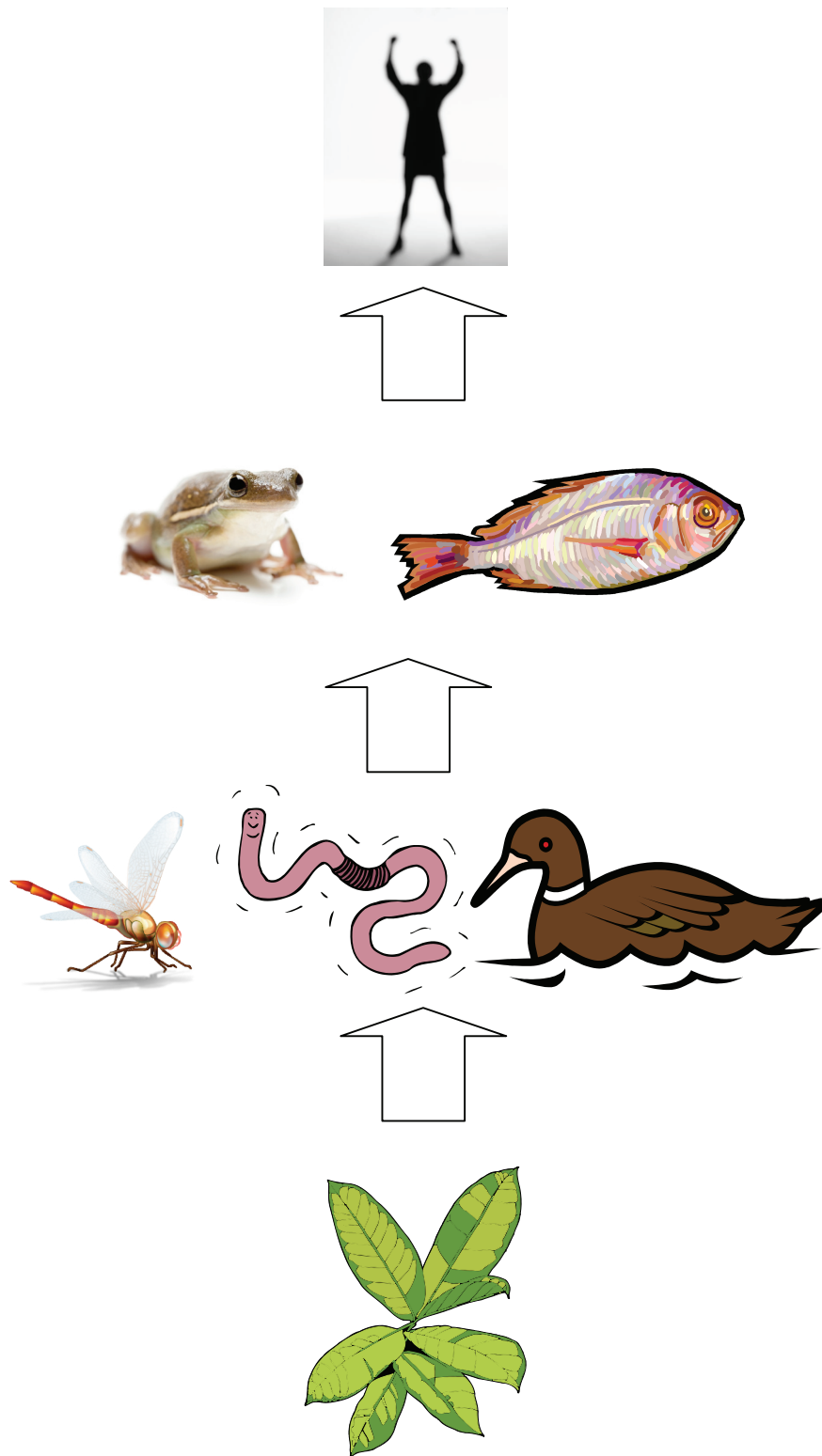
PALS1.41.SG.AS.A

Food Chain and Hieroglyphics



PALS1.41.SG.AS.B

Food Chain Poster Answer Key



PALS1.41.SG.ASSESS.A

Name _____

