

Fishy Science

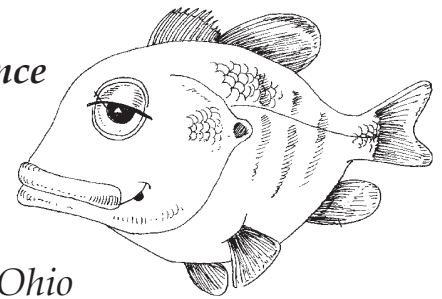
An Aquatic Life Unit 2nd grade classrooms

Water, water everywhere—and yet fish get thirsty. Why? Through observation and experimentation, students learn the answers to that question and many others in this four-lesson curriculum on how fish swim and breathe, their sensory features, and their adaptation to water. Units can stand alone or work as a progression. Among the activities:

- **identifying body parts of fish**
- **adapting a quarter to enable it to float**
- **detecting carbon dioxide in exhaled air**
- **exploring the breathing mechanism of fish**
- **observing fish for color vision**

The teacher manual includes lesson plans, camera-ready student hand-outs, and information on additional resources.

Fishy Science
was developed
by profession-
al staff at The Ohio



State University as part of the Science Alive in the Classroom series of 4-H school enrichment programs. For additional information on the availability of this unit in your classroom, contact your county's OSU Extension office.

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Grade 2—Ohio Academic Content Standards and Indicators, 2007

Life Sciences

Characteristics and Structure of Life	1. Explain that animals, including people, need air, water, food, living space and shelter; plants need air, water, nutrients (e.g., minerals), living space and light to survive.	X
	2. Identify that there are many distinct environments that support different kinds of organisms.	X
	3. Explain why organisms can survive only in environments that meet their needs (e.g., organisms that once lived on Earth have disappeared for different reasons such as natural forces or human-caused effects).	
Heredity	4. Compare similarities and differences among individuals of the same kind of plants and animals, including people.	X
Diversity & Interdependence of Life	5. Explain that food is a basic need of plants and animals (e.g., plants need sunlight to make food and to grow, animals eat plants and/or other animals for food, food chain) and is important because it is a source of energy (e.g., energy used to play, ride bicycles, read, etc.).	X
	6. Investigate the different structures of plants and animals that help them live in different environments (e.g., lungs, gills, leaves and roots).	X
	7. Compare the habitats of many different kinds of Ohio plants and animals and some of the ways animals depend on plants and each other.	

Scientific Inquiry

Doing Scientific Inquiry	1. Ask “how can I/we” questions.	X
	2. Ask “how do you know” questions (not “why” questions) in appropriate situations and attempt to give reasonable answers when others ask questions.	X
	3. Explore and pursue student-generated “how” questions.	X
	4. Use appropriate safety procedures when completing scientific investigations.	X
	5. Use evidence to develop explanations of scientific investigations. (What do you think? How do you know?)	X
	6. Recognize that explanations are generated in response to observation, events and phenomena.	X
	7. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, non-breakable thermometers, timers, rulers, balances and calculators and other appropriate tools).	X
	8. Measure properties of objects using tools such as rulers, balances and thermometers.	
	9. Use whole numbers to order, count, identify, measure and describe things and experiences.	X
	10. Share explanations with others to provide opportunities to ask questions, examine evidence, and suggest alternative explanations.	X

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