

















PART 1

SCIENCE

ELEMENTARY

A Fish Story	2
The Cycles of Metamorphosis	6
Plastic Landscapes	8
Beads & Seeds	12

MIDDLE SCHOOL

Magnificent Marbling	16
Cycles of Life	20
The Artist as Naturalist	24
Wondrous Watercolor Cell Illustrations	30

A FISH STORY

A LOVING LEGACY FOR A RETIRED TEACHER



The goldfish pond to honor a beloved teacher.

Craig Hinshaw

y colleague Janine Kairis and I retired the same year. We had begun teaching at Lamphere schools at about the same time—she in kindergarten and me in art. In between those twenty-some years, we shared much more than teaching. We talked to each other about our young children and our aging fathers. As the years passed, we discussed our children's college careers, spouses, and eventually we shared the joy of grandchildren. Finally, our conversations turned to retirement and life after teaching.

A Zoo in the Classroom

I have taught with hundreds of great elementary teachers, but Janine was the only one who kept live animals in her classroom. Class pets included goldfish, a parakeet, and guinea pigs. Cleaning cages, feeding regularly, and carting animals home over school breaks were an added burden. But what students learned from the experience included the responsibility of daily feeding, the giving and receiving of love, and understanding death. "Be gentle" was Janine's instruction to the kindergartners whenever they handled the guinea pigs.

The Goldfish Pond

When Janine retired, her goldfish stayed at school (as did I—on a parttime basis). No teacher volunteered to take the aquarium and fish, so we decided to add the two large fish to our school goldfish pond.

As a tribute to Janine, I decided to have each fourth-grader make a clay



OBJECTIVES

- Use observational drawing to create designs for clay fish.
- Make and install clay fish for a school pond and garden.

ESSENTIAL QUESTION

How can art be used to honor those important to us?

MATERIALS AND RESOURCES

- Images of different kinds of fish
- Clay
- Clay tools
- Glazes
- Wooden dowels

NATIONAL VISUAL ART STANDARD

Presenting: Develop and refine artistic techniques and work for presentation.

NEXT GENERATION SCIENCE STANDARD

Make observations of plants and animals to compare the diversity of life in different habitats.



Students observed live models to draw patterns for clay fish.

goldfish to decorate the pond area. One thing led to another, and we decided to name the pond the Mrs. Kairis Goldfish Pond and invite her back for a dedication ceremony.

Making Fish from Life

Students observed live models (goldfish from the pond) and drew them to make paper patterns. They traced their drawings on $6 \times 10^{\circ}$ (15 x 25 cm) slabs of clay and then carefully cut them out. Using craft sticks, they added scales and other details to their clay fish. While the clay was still moist, I poked a hole into the bottom of each fish with a dowel so it could be made to stand when complete. When the clay fish were dry, I fired them, students glazed them, and I fired them again. Dowels were inserted so the fish could be "planted" in the garden.

The Dedication

Prior to the dedication, I asked students (and teachers) to write down something they had learned from Mrs. Kairis. These were compiled into a poster based on the idea of Robert Fulghum's *All I Really Needed to Know I Learned in Kindergarten*. On the day of the dedication, touching words were spoken and hugs given. Janine's husband and two of her grown children were present. It was then I realized that the success of our nature center and the care of the animals could be attributed to Janine's loving guidance.

In closing, this is not a fish story at all; it's a story about love. 🐵

Craig Hinshaw is a retired elementary art teacher who taught in the Lamphere School District in Madison Heights, Michigan. He is the author of Clay Connections and Animals, Houses, and People (Poodle Press).



Students added texture by pressing objects into the clay while it was still wet.



Students traced their hand-drawn patterns onto slabs of clay.