# One Page Resources:

## NATURE EXPLORATION AND SCIENCE IN THE CLASSROOM

Adapted from *Marvelous Moving Things: Early Childhood Science in Motion* & *Young Investigators: The Project Approach in the Early Years.*

### Discuss and role-model for children what scientists do

Support children's inquisitive nature by **explaining** and **modeling** the **scientific process** so that children can apply it to the many questions that motivate them to explore and learn. During circle time or a small group activity **explain to children what a scientist is and does (EI25.3, role plays).**

**1**. A scientist is a person who **asks questions** and tries different ways to answer them. **Model "I wonder" and "what if" statements (EI14.3, makes predictions).**

**2.** A scientist learns from his or her **senses (EI14.1, senses).**
- sight
- hearing
- touch
- smell
- taste

**3.** A scientist notices details and draws what he or she sees. **Model drawing an interesting object and labeling its parts (EI8.3, writing; EI13.1, creativity).**

**4.** Introduce children to the fact that scientists are always **looking for more to learn (EI23.2, explores new things).** Have a large sheet of paper in the room to help children write down questions and topics that interest them and that you can investigate.

**5.** Point out that scientists investigate by
- **measuring (EI11.3, measurement)**
- **making comparisons (EI11.3, measurement)**
- **sorting (EI12.1, sorts)**
- **counting (EI9.2, counting)**
- **draw/write what they see (EI13.1 creativity; EI8.3 writing; EI21.1, focus)**
- **doing things over and over again (EI27.1, focus)**

### ESSENTIAL QUESTIONS TO INVESTIGATE USING THE PROJECT APPROACH

**A possible topic emerges**

**Child-directed**

**Ashley observes the new pet goldfish for several days and one day asks the teacher...**

**DO FISH SLEEP?**

**Teacher-directed**

**A parent brings apples for snack. Teacher Annie wonders...**
**DO CHILDREN KNOW WHERE FOOD COMES FROM?**

**BRAINSTORM WHAT KIDS KNOW ABOUT THE TOPIC** (current concepts and understandings)
**WHAT ELSE DO CHILDREN WANT TO FIND OUT?**

**What kids know:**
Fish swim.
Fish live in water.
Fish have fins.
**What kids want to know:**
Do fish sleep?
What do they eat?
How do they breath?

**What kids know:**
The store. Our garden. Mommy buys it.
**The teacher models questions to answer:**
I wonder how food gets to the store. What foods can we grow in a garden?

**INVESTIGATE:**
**Visit fieldsites and talk to experts, examine artifacts, read books, experiment.**

**Primary resources:**
Visit aquariums, marine biologists, fish markets, go fishing, invite a fly fisherman to class.
**Secondary resources:**
Books, diagrams, fishing supply stores, pet stores.
**Experiment**
Cut open a fish to explore anatomy. Setup an aquarium.

**Primary resources:**
Visit grocery stores, a farm or dairy, a family's garden. Invite to class parents who work at stores. Bring a chicken to school.
**Secondary resources:**
Books, staff cooks, delivery trucks and drivers.
**Experiment**: Grow bluecorn, cook bluecorn pancakes.

**REPRESENT** what was learned through writing, drawing, construction, dancing, dramatic play, graphic organizers, and other activities.

**ASSESS & SHARE:** What learning goals were achieved? Use a documentation board to share narratives, quotes, graphic organizers, pictures, artwork, etc.