

**Growing Food** 

Farm to Table & Beyond

Food & Health

Choice, Control, & Change

# **QuESTA!**

How students learn is as important as what they learn. The Module and Unit Questions ask students to think hard by challenging them to explore, question, investigate, analyze, synthesize, and act. QuESTA is a five-phase cycle that guides students through this process. Although the phases are presented linearly, they are dynamic. Once you get acquainted with QuESTA you and your students will flow among the phases. Here are some sample questions to help you guide your students' learning.



QUESTIONING

- What do I already know about the topic?
- What don't I know about the topic but would like to learn?
- What am I curious about?
- How might I find answers to my questions?
- What if ...?



**EXPERIMENTING** 

- How can I set up my experiment?
- What are the steps in my experiment?
- What materials do I need for my experiment?
- What do I think will happen?
- Did my experiment work as well as I thought it would? Is there anything I would like to change about it?
- What data do I have?
- What are the results of my experiment?



SEARCHING

- What can I learn from reading or talking to people?
- Where can I find out more information?
- What do scientists already know about this topic?
- How can I find out if my results are accurate?
- How can I tell the difference between a fact and an opinion?



**THEORIZING** 

- What have I learned?
- What evidence do I have to support my conclusion?
- Have my ideas changed?
- What are some different ways that I can analyze what I have learned from questioning, experimenting and searching?
- What conclusions can I draw?
- Has my thinking about this topic changed? Why or why not?



**APPLYING TO LIFE** 

- How can I use what I have learned?
- How can I remember to think about what I have learned as I do my daily activities?
- What can I teach my family and friends?
- What new questions do I have about the topic now that I am using this new knowledge in the real world?

## What is LiFE?

It is an inquiry-based, action-changing, thought-provoking curriculum series that supports student investigations of topics in life science using a familiar domain — food. Module and Unit Questions drive the LiFE curriculum. These questions challenge students to explore, question, investigate, analyze, synthesize, and act.

#### LiFE Teacher Guides Include:

- Lesson plans with helpful background information, practical teaching tips and tools for assessment
- Student activity sheets and readings
- A matrix that maps LiFE to the *National Science Education Standards* and *Benchmarks for Science Literacy*

### LiFE Modules:

- Growing Food (grades 4, 5 or 6)
- Farm to Table & Beyond (grades 5 or 6)
- Food & Health (grades 5 or 6)
- Choice, Control, & Change (grades 6, 7, or 8)

### **Driving Questions:**

- Growing Food: How does nature provide us with food?
- Farm to Table & Beyond: What is the system that gets food from farm to table and how does this system affect the environment?
- Food & Health: How does food provide our body with what it needs?
- *Choice*, *Control*, & *Change*: How can we use scientific evidence to help us make healthful food and activity choices?



## Response to LiFE:

"My students are thinking deeply about food system issues. They get excited every time we do the lessons. I use LiFE as a replacement unit in our adopted science curriculum."

- Stephen M., sixth-grade teacher

"The students were so excited by the lessons that every day they would ask me when is science going to be?" — Leah D., sixth-grade teacher

"The lesson with the food burning experiment is sheer brilliance. My students really understood that food has energy."

— Nick G., sixth-grade teacher

"We were under fire to cover the science standards and this program really helped get me through all that."

— Elizabeth R., fifth-grade teacher

"We were being scientists because the lessons helped us find out more about the things we wanted to know."

— Alicia L., fifth-grade student

"When I grow up I want to be a scientist. The LiFE Program . . . was one step forward toward my dream."

— Samuel A., sixth-grade student



#### FOR MORE INFORMATION, CONTACT US:

EMAIL: lifeatTC@columbia.edu

• PHONE: 212/678-3001

WEB: www.tc.edu/life



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