

## Level of Inquiry

Lesson	Level of Inquiry**
Introduction to Wetlands	Structured Inquiry
Aliens Among Us	Structured Inquiry
Annual Wetland Plant Diversity Survey	Structured Inquiry
Is Purple Loosestrife a Problem in Our County?	Guided Inquiry
Controlling Purple Loosestrife	Guided Inquiry
Biological Control of Purple Loosestrife	Guided Inquiry
Biological Control Agent: Host-Plant Specificity	Structured Inquiry
Purple Loosestrife & Galerucella Beetle Rearing	Confirmation
Observations and Life Cycles	Open Inquiry
Galerucella Beetle Release	Confirmation
Evaluating the Impact of Galerucella on Purple Loosestrife	Structured Inquiry

\*\* Tafoya, E., Sunal, D. & Knect, P. (1980). Assessing inquiry potential: A tool for curriculum decision makers. *School Science and Mathematics*, 80(1), 43-48.

## Project 2061 Criteria

Project 2061 is the name of the long-term initiative of the American Association for the Advancement of Science. The project seeks to reform K-12 science, mathematics, and technology education ([www.project2061.org/](http://www.project2061.org/))

The 4-H *Biological Control of Purple Loosestrife* curriculum meets most of the criteria established for each of the seven science clusters. Based on the Project 2061 criteria, this curriculum has the following strengths:

- States the purpose of each activity and provides a rationale for the sequence of activities
- Builds on the student's prior knowledge
- Provides first-hand experiences and introduces concepts with activities
- Develops skills throughout the curriculum
- Asks thought-provoking questions
- Includes some authentic assessments built into the curriculum
- Presents students with a challenging project that should keep students interest
- Provides opportunities to critique their own and other people's ideas

Cluster 1 - Identifying a Sense of Purpose
Cluster 2 - Taking Account of Student Ideas
Cluster 3 - Engaging Students with Phenomena
Cluster 4 - Developing and Using Scientific Ideas
Cluster 5 - Promoting Student Thinking about Phenomena
Cluster 6 - Assessing Progress
Cluster 7 - Enhancing the Science Learning Environment

## Skills

### Note:

- All the activities teach skills in management of resources and working in groups
- Most of the activities incorporate the following skills: Acquiring, analyzing, and using information; and observation skills
- 30-40% of the activities teach Problem solving & decision making, Predicting, and Questioning skills

## Skills evaluation

Activity	PS	AAU	MR	GW	CI	P	O	Q
Introduction to Wetlands			X	X	X		X	X
Aliens Among Us			X	X	X	X	X	
Annual Wetland Plant Diversity Survey		X	X	X	X	X	X	
Is Purple Loosestrife a Problem in Our County?		X	X	X	X	X	X	
Controlling Purple Loosestrife	X	X	X	X	X			X
Biological Control of Purple Loosestrife	X	X	X	X	X			
Biological Control Agent: Host-Plant Specificity			X	X			X	
Purple Loosestrife & Galerucella Beetle Rearing		X	X	X	X	X	X	X
Observations and Life Cycles	X	X	X	X			X	
Galerucella Beetle Release			X	X			X	
Evaluating the Impact of Galerucella on Purple Loosestrife	X	X	X	X	X		X	

### Key

**PS** - Problem Solving & decision making  
**AAU** - Acquiring, Analyzing, and Using information  
**MR** - Managing Resources  
**GW** - Group Work  
**CI** - Communicating Ideas  
**P** - Predicting  
**O** - Observing  
**Q** - Questioning