



# Nature-Watch Activity Kit

## Incredible Insects

### Incredible Insects Kit Contents

Item:	Kit Size		
	1	25	100
Glow Sticks	1	25	100
Bottles and Caps	1	25	100
Wing Pattern Cards	1	25	100
Chenille Stems	3	75	300
Wiggle Eyes	2	50	200
Antenna Wires	2	50	200
Glue	0	1	2
Instructor Manual	1	1	1

*This page includes the Next Generation Science Standards (NGSS) mapping for this kit and a Science, Technology, Engineering, and Math (STEM) chart (on back) to use in adapting and extending this activity to other subject areas. The NGSS mapping and STEM chart are brought to you by Resource Area For Teaching (RAFT) in partnership with Nature-Watch.*

*Nature-Watch and Resource Area For Teaching (RAFT) are both dedicated to providing the best in hands-on experiential teaching resources for educators and their students.*

*For more information visit:*

[www.nature-watch.com](http://www.nature-watch.com) and  
[www.raft.net](http://www.raft.net)

### **Next Generation Science Standards Alignment**

2-LS4-1:

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

3-LS3-1:

Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-PS4-2:

Develop a model to describe that light reflected from objects and entering the eye allows objects to be seen.

**See Back for STEM Chart**

## Science

- Formulate an hypothesis for how the ability of fireflies to produce light helps them to survive as a species in terms of inherited traits
- Conduct an investigation to determine if there is a relationship between the brightness of firefly glow and ability to find a mate

## Technology

- Visit <http://animals.nationalgeographic.com/animals/bugs/firefly/> for information and photos of fireflies
- Interactive firefly genetics activity: <http://learn.genetics.utah.edu/content/molecules/firefly/>

## Incredible Insect

## Engineering

- Construct a model firefly with the ability to shine a light with various levels of brightness
- Build a diorama depicting the life cycle of a firefly
- Design and build a firefly costume that is anatomically correct

## Math

- Watch videos of fireflies flashing at night and try identify patterns in the flight paths, number of flashes, or both
- Obtain firefly structure printout here: <http://www.enchantedlearning.com/subjects/insects/beetles/Fireflyprintout.shtml> and then identify geometric figures and lines of symmetry (and types) in the figure

