

Nature-Watch Activity Kit Magnificent Metamorphosis

Metamorphosis Kit Contents

| | Kit Size | |
|------------------------|-------------|-----|
| | 25 | 100 |
| <u>Item:</u> | Quantities: | |
| Metamorphosis Cards | 25 | 100 |
| Leaves | 25 | 100 |
| Popcorn Kernels | 25 | 100 |
| Black Chenille Stems | 25 | 100 |
| White Chenille Stems | 25 | 100 |
| Green Chenille Stems | 25 | 100 |
| Cocoons | 25 | 100 |
| Butterfly Sticker Book | 1 | 4 |
| Glue | 1 | 2 |
| Baggies | 25 | 100 |
| Instructor Manual | 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 and www.raft.net

Next Generation Science Standards Alignment

1-LS3-1:

Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

3-LS1-1;

Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

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.

MS-LS4-4:

Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

See Back for STEM Chart



Science

- Model the life cycle of an organism with more stages in its metamorphosis
- Describe scenarios with the model where one stage is interrupted or endangered by humans

Technology

- Create a flow chart using graphical software where each stage of the cycle is represented with supporting details
- Create a metamorphosis chart for 4-5 different organisms where users can input data and evidence for each stage

Metamorphosis

Engineering

- Build an interactive model with flaps concealing specific details of each stage, like a mini museum exhibit
- Develop a life size model allowing people to become each stage of metamorphosis

Math

- Create a chart depicting the number of species that metamorphose and the stages in the cycle for each organisms
- Create a graph showing areas on a map where certain organisms live, including those that undergo metamorphosis

