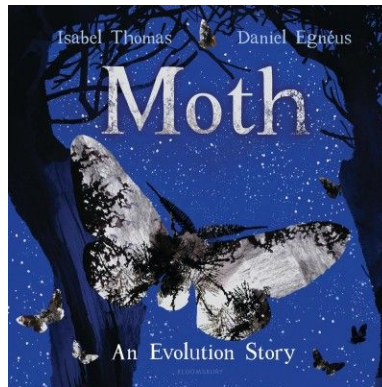


Book Guide
Milwaukee Public Library Summer Reading Program



Book Title:	Moth: An Evolution Story
Author:	Isabel Thomas
Illustrator:	Daniel Egneus

Recommended Audience	<input type="checkbox"/> K5	<input checked="" type="checkbox"/> 1 st	<input checked="" type="checkbox"/> 2 nd	<input checked="" type="checkbox"/> 3 rd	<input checked="" type="checkbox"/> 4 th	<input checked="" type="checkbox"/> 5 th	<input type="checkbox"/> 6 th
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Length of Time to Read: Moth: An Evolution Story can be read in one sitting of approximately 15-20 minutes. This book is meant to be re-read. With each reading students will learn new information and discover details in the beautiful illustrations.

Summary: Moth: An Evolution Story tells the true story of animal adaptation in order to survive in a changing environment told with simple rhyme and captivating illustrations. Follow the story of the peppered moth and learn how they changed over time to survive in a world that was changing as a result of human impact.

Before Reading (Create Interest):
 Before reading **Moth: An Evolution** story, talk with students about the concept of adaptation and evolution: how over time an animal species can adapt (change) in order to survive. An example of animal adaptations are animals that have special markings or coloring that acts as camouflage to hide from predators, such as the stripes on a zebra. Ask students if they can think of other animal adaptations. Explain that moths are important because they help pollinate flowers which in turn helps plants grow. Moths are also food for other animals such as bats and birds. We call this the food chain: when plants, animals, and other living things depend on one another for survival.

Tell students that this book takes the reader on a journey spanning hundreds of years. While they listen to you read the book they will need to be *scientists* and look for changes as they

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observe the illustrations and learn about the peppered moth. Read the end notes with students to help build background related to the concept of adaptation, evolution, and natural selection.

Moth: An Evolution Story talks about a period of time known as the Industrial Revolution. About 200 years ago there was a change in the way people lived and worked. During this time cities grew and factories were built as machines were used more and more. You'll see some of those changes as we read this book.

During Reading (Discussion/Questions):

Ask students to pay close attention to the coloring of the moths in the illustrations. Stop and encourage students to observe how the moth changes throughout the book from peppered (black and white), to black, and back to peppered again. Pay attention to any changes you notice both to the peppered moth and its environment.

After Reading:

Questions for discussion:

- How did the peppered moth adapt over time? What changes did you *observe* in the peppered moth as we read the book?
- What are some of the things that humans did to contribute to the changes in the peppered moth's habitat?
- What are some things humans did to help restore the environment of the peppered moth?

STEAM (Science, Technology, Engineering, Arts, and Math) Connection:

Advantages/Disadvantages

- Help students understand that adaptations bring both advantages (things that help) and disadvantages (things that harm) animals.
- Make a simple chart with two columns labeled: Advantages and Disadvantages
- Ask students to share advantages and disadvantages faced by peppered moths and charcoal moths.
- Record their responses in the appropriate column and discuss.

Art: Make a Paper Peppered Moth--see attached step-by-step instructions

Ideas for younger or older children:

Variation of the game Red Light Green Light -- Play the following game outside to help your 1st-3rd grade students learn about camouflage while having fun and getting some exercise. Rabbits hold very still when they see a predator -- maybe you've noticed this before when you see rabbits in your neighborhood! Sometimes they are "frozen" right next to you, and you don't even notice they are there. Explain to your group that for this game, you will be a hungry fox



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(predator), and they will be rabbits (prey). When you walk forward with your back turned, your students are allowed to follow behind you, moving like rabbits. However, when you yell, “3...2...1...camouflage!” you will turn around to face your students while they have to freeze in place. If you see a student move, they are “eaten” by the fox and have to go to the back of the group.

Additional Notes: additional lesson ideas from Bloomsbury Children’s Books can be found at: [MOTH: AN EVOLUTION STORY 1](#)