Title/Author: *A Butterfly is Patient*

Suggested Time to Spend: 6 Days (Recommendation: two sessions per day, at least 20 minutes per day)

Common Core grade-level ELA/Literacy Standards: RI.2.1, RI.2.2, RI.2.3, RI.2.4, RI.2.5, RI.2.6; W.2.2, W.2.8 ; SL.1.2, SL.2.2, SL.2.6; L.2.1, L.2.2, L.2.4

Lesson Objective:

Students will learn about the characteristics of butterflies and will engage in multiple activities to build their understanding of how a butterfly’s characteristics help it survive and interact with its environment.

Teacher Instructions

**Before the Lesson**

1. Read the Big Ideas and Key Understandings and the Synopsis below. **Please do not read this to the students**. This is a description to help you prepare to teach the book and be clear about what you want your children to take away from the work.

Big Ideas/Key Understandings/Focusing Question

 How do butterflies’ characteristics help them interact with and survive within their environment?

Answer: Butterflies interact with their environment in multiple ways as described by the text. The author uses specific adjectives to help us understand these characteristics. Some examples of how butterflies interact with their environment include: pollinating flowers (helpful) and migrating to warmer climates to lay eggs (traveler). Some examples of how a butterfly’s characteristics help it survive are: drinking nectar as nourishment (thirsty), eating poisonous plants to develop into poisonous butterflies in order to avoid predators (poisonous), and using camouflage and eye spots to scare away predators (protective).

Synopsis

*A Butterfly is Patient* is an illustrated informational text that describes the many characteristics of butterflies. Through a poetic narrative, students are introduced to the world of butterflies and exposed to many fun and interesting facts. The book incorporates hand-painted illustrations, and has very few traditional text features. While numerous content-specific vocabulary words are included, the book embeds definitions into the text.

1. Go to the last page of the lesson and review “What Makes this Read-Aloud Complex.” This was created for you as part of the lesson and will give you guidance about what the lesson writers saw as the sources of complexity or key access points for this book. You will of course evaluate text complexity with your own students in mind, and make adjustments to the lesson pacing and even the suggested activities and questions.
2. Read the entire book, adding your own insights to the understandings identified. Also note the stopping points for the text-inspired questions and activities. *Hint: you may want to copy the questions, vocabulary words and activities over onto sticky notes so they can be stuck to the right pages for each day’s questions and vocabulary work.*

The Lesson – Questions, Activities, and Tasks

|  |  |
| --- | --- |
| **Questions/Activities/Vocabulary/Tasks** | **Expected Outcome or Response (for each)** |
| **FIRST READING:**Read aloud the entire book with minimal interruptions. Stop to provide word meanings or clarify only when you know the majority of your students will be confused. | The goal here is for students to enjoy the book, both writing and pictures, and to experience it as a whole. This will give them some context and sense of completion before they dive into examining the parts of the book more carefully. |
| **SECOND READING:**Day 2 will focus on the author’s description of a butterfly as **patient** and **creative** in order to support students’ understanding of a butterfly’s development from a caterpillar to a butterfly.Say, “Yesterday we read *A Butterfly is Patient*. In this book we found many characteristics of butterflies. A characteristic is a word that describes a living thing. Today we are going to continue reading this book and looking at some of the words the author chooses to describe a butterfly’s characteristics, and how the butterfly demonstrates these characteristics.” *Reread page 2* Questions:What does it mean to be patient? Why did the author choose the word patient? How does a butterfly demonstrate patience?Engage in a group discussion focusing on what it means to be creative. Say, “Creative can mean different things. Creative can mean using your imagination in artwork; the author uses creative to describe butterflies in a different way.” *Reread pages 3 & 4*Questions: Why did the author choose the word creative? How does a butterfly demonstrate how it is creative? Take out your graphic organizer.1. Copy the word *patient* from the board under the column listed “characteristic.”
2. Under “Why did the author choose this word?” write a sentence that explains why you think the author chose this word.
3. Under “How does the butterfly demonstrate this characteristic?” have students identify specific examples and textual evidence that support a butterfly’s demonstration of this characteristic.
4. Repeat with the word *creative*.
5. When students have finished, have them turn and talk to share their reasons about the author’s word choice and textual evidence.
 | * Students should make the connection that a butterfly is patient because it has to transform from an egg, to a caterpillar, to a butterfly.
* Students should make the connection that a butterfly is creative because it “creates” a chrysalis.
* Students will respond by completing the three column table responding to the prompt.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why did the author choose this word?** | **How does the butterfly demonstrate this characteristic?** |
| patient | A butterfly has to wait | Hides in an egg until it chews free |
| creative | A butterfly makes a chrysalis | -As a caterpillar, eats leaves to molt- creating new skin-Creates a chrysalis to protect itself during metamorphosis |

 |
| **THIRD READING:**Day 3 will focus on the author’s description of a butterfly as **helpful** and **thirsty** in order to support students’ understanding of how a butterfly is involved in pollination and gains nourishment from drinking nectar.*Reread page 6*Quickly define flits and clings (use movement activities if appropriate for your students)Ask students:Why did the author choose the word helpful? How does a butterfly demonstrate it is helpful? *Reread pages 13 & 14*Define “nourish” for students. Ask students:Why did the author choose the word thirsty? How does a butterfly demonstrate it is thirsty? Take out your graphic organizer.1. Copy the word *helpful* from the board under the column listed “characteristic.”
2. Under “Why did the author choose this word?” write a sentence that explains why you think the author chose this word.
3. Under “How does the butterfly demonstrate this characteristic?” have students identify specific examples and textual evidence that support a butterfly’s demonstration of this characteristic.
4. Repeat with the word *thirsty*.
5. When students have finished, have them turn and talk to share their reasons about the author’s word choice and textual evidence.
 | * Students should make the connection that a butterfly is helpful because it pollinates flowers.
* Students should make the connection that a butterfly is thirsty because it needs to drink and eat.
* Students will respond by completing the three column table responding to the prompt.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why did the author choose this word?** | **How does the butterfly demonstrate this characteristic?** |
| helpful | A butterfly helps plants | -Butterflies help pollinate plants so they can make seeds by carrying pollen from plant to plant |
| thirsty | A butterfly needs to drink and eat | -Butterflies taste with their feet-Butterflies sip nectar with a proboscis-Some butterflies get their nourishment from rotting fruit or from pond/lake water |

 |
| **FOURTH READING:**Day 4 will focus on the author’s description of a butterfly as **protective, poisonous,** and **scaly** in order to support students’ understanding of how a butterfly uses camouflage and other physical characteristics to protect it from predators.*Reread pages 7 and 8.*Say, “To protect means to keep something safe.”Why did the author choose the word protective? How does a butterfly demonstrate it is protective? *Reread page 10*Why did the author use the word poisonous? How does a butterfly demonstrate it is poisonous?*Reread pages 17 and 18.* Why did the author choose the word scaly? How does a butterfly demonstrate it is scaly?Take out your graphic organizer.1. Copy the words *protective, poisonous, and scaly* from the board under the column listed “characteristic.”
2. Under “Why did the author choose this word?” write a sentence that explains why you think the author chose each word.
3. Under “How does the butterfly demonstrate this characteristic?” have students identify specific examples and textual evidence that support a butterfly’s demonstration of this characteristic.
4. When students have finished, have them turn and talk to share their reasons about the author’s word choice and textual evidence.
 | * Students should make the connection that a butterfly is protective because it protects itself from predators by scaring them away using eyespots or hissing sounds, and by hiding using camouflage.

 * Students should make the connection that a butterfly is poisonous because it has wings that tell predators they are poisonous and that some butterflies eat poisonous plants when they are caterpillars and become poisonous as adults.
* Students should make the connection that a butterfly is scaly because of the scales on its wings.
* Students will respond by completing the three column table responding to the prompt.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why did the author choose this word?** | **How does the butterfly demonstrate this characteristic?** |
| protective | A butterfly protects itself from predators | -Some wings have eyespots that might scare away predators-Some wings help camouflage to hide from predators-One butterfly makes a hissing sound by rubbing its wings together |
| poisonous | Some butterflies can make predators sick if they eat them | -The color of the wings tell predators the butterfly is poisonous or bad tasting-Some butterflies eat poisonous plants when they are caterpillars so that they will be poisonous as adults |
| scaly | A butterfly has scales on its wings | -Shiny, powdery scales cover the wings so that they are not see-through-Some patterns attract mates-Dark scales absorb heat which keeps the butterflies warm enough to fly |

 |
| **FIFTH READING:**Day 5 will focus on the author’s description of a butterfly as **spectacular** and **big and tiny**. Additionally, students will discuss the differences between butterflies and moths. *Reread pages 11-12*What does it mean to be spectacular? (Discuss definition: to be sensational or thrilling.) Why did the author choose the word spectacular? What have we learned from this page and others to demonstrate how a butterfly is spectacular?*Reread pages 15-16*What does it mean to be big? Tiny? How can a butterfly be big and tiny? Use the “rulers” at the top and bottom of the pages to show the size of the Queen Alexandra’s Birdwing and the Arian Small Blue.Why did the author choose to use the antonyms big and tiny? How is a butterfly big and how is a butterfly tiny?*Reread pages 19-20*As we reread these pages, let’s pay attention to what is the same and to what is different about butterflies and moths. | * Students will respond by completing the three column table responding to the prompt.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why did the author choose this word?** | **How does the butterfly demonstrate this characteristic?** |
| spectacular | Butterflies have a variety of colors and patterns on their wings that are visually appealing | -Bright colors and interesting patterns on wings-Students may reference evidence that they have discussed on previous days |

* Students do NOT need to complete the three column table for “big” and for “tiny.” Student responses may include: the largest butterfly has a wingspan of 1 foot (Queen Alexandria Butterfly) and the smallest butterfly has a wing span that is a third of an inch (Arian Small blue butterfly). Students may draw comparisons on the sizes of the butterflies by saying one is the length of a grain of rice while the other is the length of a ruler.
* Complete a class “Box and T-Chart” recording the similarities and differences between butterflies and moths. See sample chart at the end of this lesson.
 |
| **SIXTH READING:**On the final day of reading, the students will focus on the author’s description of the butterfly as a **traveler**, **magical**, and will come full circle to describing a butterfly as **patient**.*Reread page 22*Why did the author choose the word traveler? How does a butterfly demonstrate that it is a traveler?*Reread page 23*Why did the author choose the word magical? How does a butterfly demonstrate that it is magical?*Reread page 25*Why did the author choose to end with the word patient? How is a butterfly patient? Can we add more evidence to our thoughts from the first day?Take out your graphic organizer.1. Copy the words *traveler and magical* from the board under the column listed “characteristic.”
2. Under “Why did the author choose this word?” write a sentence that explains why you think the author chose each word.
3. Under “How does the butterfly demonstrate this characteristic?” have students identify specific examples and textual evidence that support a butterfly’s demonstration of this characteristic.
4. When students have finished, have them turn and talk to share their reasons about the author’s word choice and textual evidence.

During the second half of the lesson, introduce the culminating activity. Students may need extended time or an additional day to complete their culminating activity.  | * Students should make the connection that a butterfly is a traveler because it migrates long distances.
* Students should make the connection that butterflies are magical because they continue their life cycle by laying eggs and starting the process again from transforming from an egg to a caterpillar to a butterfly.
* Students should make the connection that the life cycle has started again and that again the butterfly must be patient. (Have students respond to this prompt by returning to their response about “patient” from Day 1.)
* Students will respond by completing the three column table responding to the prompt.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why did the author choose this word?** | **How does the butterfly demonstrate this characteristic?** |
| traveler | Butterflies can fly long distances | -Most butterflies migrate to find warmer places-Some butterflies can fly higher than some clouds |
| magical | Butterflies lay eggs to start the life cycle again | Butterflies lay eggs |

 |

FINAL DAY WITH THE BOOK - Culminating Task

* Say something like, “Over the past week, we have identified many characteristics of a butterfly. Today, I want you to pick two charactertistics of a butterfly that you think are important. Then, write a paragraph with at least five sentences describing the characteristics of the butterfly you selected. Use evidence from the text to explain why your butterfly’s characteristics are important. This paragraph should represent your best written work.”
* Sample answer: Two characteristics of a butterfly that I think are important are that it is patient and helpful. The author describes the butterfly as patient because it has to wait a long time to change from an egg, to a caterpillar, to a chrysalis, and finally to a butterfly. It takes 38 days for a butterfly to change from an egg to a butterfly. It is important that a butterfly is patient because this allows it to complete its lifecycle. I also think it is important that a butterfly is helpful. The author says a butterfly is helpful because it flies from flower-to-flower and transfers pollen. When a butterfly gets nectar, pollen sticks to its body and moves to other flowers in a process called pollination. It is important that a butterfly is helpful, because it helps flowers make seeds.

Vocabulary

|  |  |
| --- | --- |
| **These words merit less time and attention** (They are concrete and easy to explain, or describe events/processes/ideas/concepts/experiences that are familiar to your students )  | **These words merit more time and attention**(They are abstract, have multiple meanings, and/or are a part of a large family of words with related meanings. These words are likely to describe events, ideas, processes or experiences that most of your student will be unfamiliar with) |
| Day 3* Page 6 – flit – a sudden, quick movement
* Page 6 – cling – to hold on tightly
* Page 6 – pollinate/pollination – to move pollen from one flower to another (often by butterflies and bees)
* Page 6 – nectar – a sweet liquid in flowers that attracts pollinators
* Page 6 – species – a group of similar living things
* Page 6 – transferred – move from one place to another
* Page 13 – coil – to wind around something in loops
* Page 13 – produced – to make or create

Day 4* Page 7 – predators – something that preys upon or eats another animal or living thing
* Page 8 – alarmed – fearful because of the awareness of danger
* Page 8 – environment – the area that surrounds something
* Page 16 – rarely – something that doesn’t happen often
* Page 17 - transparent – thin enough for light to shine through
* Page 18 – absorb – to take in or soak up

Day 6* Page 22 – migrate – to move where you live from one place to another
* Page 23 – gather – to collect
* Page 23 – soar – to fly high in the sky
 | Day 2* No Page – characteristic – a word that describes a living thing
* Page 2 – “umbrella of leaves” – a leaf that provides covering and shelter for the egg
* Page 3 – creative – to create using imagination (as in Art)
* Page 3 - molt – to peel off skin or feathers
* Page 4 – create – to make or construct a creation
* Page 4 – chrysalis – the protective covering of skin created by a butterfly as it goes through metamorphosis
* Page 4 - metamorphosis – a complete change of physical form

Day 3* Page 14 – nourish – to supply what is necessary for life, health, and growth
* Page 14 – kaleidoscope – changing colors

Day 4* Page 18 – purpose – what something is used for
* Page 18 – attract – to draw something toward an object, preventing it from moving away

Day 5* Page 11 – spectacular – being sensational or thrilling
* Page 20 – evolve – to undergo development and change over time

Day 6* Page 25 – emerge – to come out from being hidden
 |

Fun Extension Activities for this book and other useful Resources

* Butterfly Habitats: If you so choose, you can create a butterfly habitat within your classroom. There are several websites that will ship live caterpillars to your school with instructions on how to create a habitat. Students then release the caterpillars following the end of the unit.

<Butterflyhabitat.com/related/habitats.htm>

<http://www.carolina.com/living-organisms/insects/butterflies/butterfly-habitats>

* Additional reading about the migration of the monarch butterfly

[www.monarch-butterfly.com/monarch-migration.html](http://www.monarch-butterfly.com/monarch-migration.html)

When rereading pages 15-16 (big and tiny), you may choose to extend the learning by looking at the maps on the pages and discussing the geography involved when learning about the butterflies found in New Guinea and in Afghanistan.

Note to Teacher

* The book does not have page numbers. It may be helpful to go through and number small post-it notes and place on each page. For our purposes, Page 2 is where the text begins, “A butterfly is patient.”
* Instead of reading straight through the book, this lesson presents students with the various characteristics of a butterfly out of order in order to develop students understanding of specific concepts. For example on Day 4 – protective, poisonous and scaly (pg. 7, 10 & 17) were linked together in order to help students understand how a butterfly uses camouflage and other physical characteristics to protect it from predators. By strategically teaching this text out of order, students are given an opportunity to make conceptual links between the different characteristics of a butterfly.
* Day 5 does not follow the typical pattern of completing the three-column chart for the different characteristics (Students WILL complete the chart for the first characteristic: “spectacular”). For “big” and “tiny” students will participate in a class discussion. For “A butterfly is not a moth” the class will complete a class box and t-chart recording the similarities and differences between butterflies and moths.
* The *Butterfly Characteristics* template can be modified for you and your class’ specific needs. Feel free to insert or delete rows as needed for additional questions, activities, or tasks

**What Makes This Read-Aloud Complex?**

1. **Quantitative Measure**

Go to <http://www.lexile.com/> and enter the title of your read-aloud in the Quick Book Search in the upper right of home page. Most texts will have a Lexile measure in this database.

Most of the texts that we read aloud in K-2 should be in the 2-3 or 4-5 band, more complex than the students can read themselves.

2-3 band 420-820L

4-5 band 740-1010L

1040

1. **Qualitative Features**

Consider the four dimensions of text complexity below. For each dimension\*, note specific examples from the text that make it more or less complex.

Purpose: To teach students that butterflies have many characteristics and adaptations that help them survive: “Wings can help butterflies camouflage or hide themselves in the environment.”

* Eyespots (Camouflage)
* Bodies help transfer pollen
* Wings
* Colors/poisonous bodies
* “Butterflies, like bees, help pollinate…”
* Antennae – food, taste with feet
* Script-style headings “A butterfly is protective”
* Unconventional captions/headings
* Timeline
* Narrative format
* Carry-over of ideas between pages

* Vocabulary (lots of Tier 3)
* Personification

“A butterfly is a traveler”

“The smallest is the rarely-seen Arian Small Blue found in Afghanistan with a wingspan of less than on third of an inch (8mm), about the length of a grain of rice.”
 Geography (Afghanistan, Canada, Mexico)
 Measurement
 Size comparisons (grain of rice, 8 mm wingspan)
 Numeration (30,000 times its size)

* + Miles per hour/kilometer

**Meaning/Purpose**

**Structure**

**Language**

**Knowledge Demands**

1. **Reader and Task Considerations**

What will challenge my students most in this text? What supports can I provide?

* Depth and breadth of information. Supports that may be provided: repeated readings, chunking text, having a clear purpose, turn and talks, visual supports (map, ruler, place value charts), multiple ways of presenting and engaging in information (kinesthetic, visual, auditory).

How will this text help my students build knowledge about the world?

* Students will develop an understanding of lifecycles, adaptive characteristics, geography, and how butterflies are a dynamic part of the ecosystem in which they live.
1. **Grade level**

What grade does this book best belong in?

* + - 2nd grade

Butterfly Characteristics (*example*)

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Why Did the Author Use this Word?** | **How Does a Butterfly Demonstrate this Characteristic?****(use text evidence)** |
| *A butterfly is:*(patient) | Day 2: * A butterfly has to wait

Day 5:* An egg and a caterpillar have to wait to become a butterfly
 | Day 2:* Hides in an egg until it chews free

Day 5:* After the egg hatches, the caterpillar eats leaves and makes a chrysalis
 |
| *A butterfly is:*(creative) | * A butterfly makes a chrysalis
 | * As a caterpillar, eats leaves to molt creating new skin
* Creates a chrysalis to protect itself during metamorphosis
 |
| *A butterfly is:*(helpful) | * A butterfly helps plants
 | * Butterflies help pollinate plants so they can make seeds by carrying pollen from plant to plant
 |
| *A butterfly is:*(thirsty) | * A butterfly needs to drink and eat
 | * Butterflies taste with their feet
* Butterflies sip nectar with a proboscis
* Some butterflies get their nourishment from rotting fruit or from pond/lake water
 |
| *A butterfly is:*(protective) | * A butterfly protects itself from predators
 | * Some wings have eyespots that might scare away predators
* Some wings help camouflage to hide from predators
* One butterfly makes a hissing sound by rubbing its wings together
 |
| *A butterfly is:*(poisonous) | * Some butterflies can make predators sick if they eat them
 | * The color of the wings tell predators the butterfly is poisonous or bad tasting
* Some butterflies eat poisonous plants when they are caterpillars so that they will be poisonous as adults
 |
| *A butterfly is:*(scaly) | * A butterfly has scales on its wings
 | * Shiny, powdery scales cover the wings so that they are not see-through
* Some patterns attract mates
* Dark scales absorb heat which keeps the butterflies warm enough to fly
 |
| *A butterfly is:*(spectacular) | * Butterflies have a variety of colors and patterns on their wings that are visually appealing
 | * Bright colors and interesting patterns on wings
* Students may reference evidence that they have discussed on previous days
 |
| *A butterfly is:*(a traveler) | * Butterflies can fly long distances
 | * Most butterflies migrate to find warmer places
* Some butterflies can fly higher than some clouds
 |
| *A butterfly is:*(magical | * Butterflies lay eggs to start the life cycle again
 | * Butterflies lay eggs
 |

**Box and T-Chart for Day 5**

 **Butterflies and Moths**

* Scaly wings
* Lepidoptera family

 **Butterflies Moths**

* Appeared 40 million years ago - Appeared 100-190 million years ago
* Flies during the day - Flies at night
* Makes a chrysalis made from its skin - Makes a cocoon of silk when going

 when going through metamorphosis through metamorphosis