

Teaching Activity Guide

Ten For Me



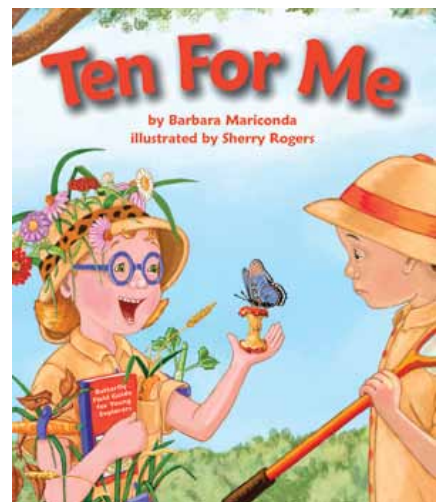
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How to Use This Activity Guide (General)

There are a wide variety of activities that teach or supplement all curricular areas. The activities are easily adapted up or down depending on the age and abilities of the children involved. And, it is easy to pick and choose what is appropriate for your setting and the time involved. Most activities can be done with an individual child or a group of children.

For teachers in the classroom: We understand that time is at a premium and that, especially in the early grades, much time is spent teaching language arts. All Arbordale titles are specifically selected and developed to get children excited about learning other subjects (science, geography, social studies, math, etc.) while reading (or being read to). These activities are designed to be as comprehensive and cross-curricular as possible. If you are teaching sentence structure in writing, why not use sentences that teach science or social studies? We also know and understand that you must account for all activities done in the classroom. While each title is aligned to all of the state standards (both the text and the For Creative Minds), it would be near impossible to align all of these activities to each state's standards at each grade level. However, we do include some of the general wording of the CORE language arts and math standards, as well as some of the very general science or social studies standards. You'll find them listed as "objectives" in italics. You should be able to match these objectives with your state standards fairly easily.

For homeschooling parents and teachers in private schools: Use as above. Aren't you glad you don't have to worry about state standards?

For parents/caregivers: Two of the most important gifts you can give your child is the love of reading and the desire to learn. Those passions are instilled in your child long before he or she steps into a classroom. Many adults enjoy reading historical fiction novels...fun to read but also to learn (or remember learning) about historical events. Not only does Arbordale publish stories that are fun to read and that can be used as bedtime books or quiet "lap" reading books, but each story has non-fiction facts woven through the story or has some underlying educational component to sneak in "learning." Use the "For Creative Minds" section in the book itself and these activities to expand on your child's interest or curiosity in the subject. They are designed to introduce a subject so you don't need to be an expert (but you will probably look like one to your child)! Pick and choose the activities to help make learning fun!

For librarians and bookstore employees, after-school program leaders and zoo, aquariums, nature center, park & museum educators: Whether reading a book for storytime or using the book to supplement an educational program, feel free to use the activities in your programs. We have done the "hard part" for you.

Glossary/Vocabulary words: Word cards may be used (see Appendix) or have children write on index cards, a poster board, or on a chalkboard for a “word wall.” If writing on poster board or chalkboard, you might want to sort words into nouns, verbs, etc. right away to save a step later if using for Silly Sentences. Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently. The glossary has some high-level words. Feel free to use only those words as fit your situation.

Silly Sentence Structure Activity: Game develops both an understanding of sentence structure and the science subject. Use words from the “word wall” to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper words by looking for the information in the book.

Animal Card Games:

Sorting: Depending on the age of the children, have them sort cards by:

- | | |
|---|-------------------------|
| where the animals live (habitat) | tail, no tail |
| number of legs (if the animals have legs) | colors or skin patterns |
| how they move (walk, swim, jump, or fly) | animal class |
| type of skin covering (hair/fur, feathers, scales, moist skin) | |
| what they eat (plant eaters/herbivores, meat eaters/carnivores, both/omnivores) | |

Memory Card Game: Make two copies of each of the sorting card pages and cut out the cards. Mix them up and place them face down on a table. Taking turns, each player should turn over two cards so that everyone can see. If the cards match, he or she keeps the pair and takes another turn. If they do not match, the player should turn the cards back over and it is another player’s turn. The player with the most pairs at the end of the game wins.

Who Am I? Copy and cut out the cards. Poke a hole through each one and tie onto a piece of yarn. Have each child put on a “card necklace” without looking at it so the card hangs down the back. The children get to ask each person one “yes/no” question to try to guess “what they are.” If a child answering the question does not know the answer, they should say they don’t know. This is a great group activity and a great “ice-breaker” for children who don’t really know each other.

Charades: One child selects a card and must act out what the animal is so that the other children can guess. The actor may not speak but can move like the animal, can imitate body parts or behaviors. For very young children, you might let them make the animal sound. The child who guesses the animal becomes the next actor.

Math Card Games (Make four copies of the math cards to play these games):
Tens Make Friends Memory Game is a combination of a memory and adding game.

- Play like the memory game, above.
- If the animal numbers add up to 10, the child keeps the pair and takes another turn.
- If they do not add up to ten, the player should turn the cards back over and it is another player's turn.

Go Fish for Fact Families is a twist on "Go Fish."

- Shuffle cards and deal five cards to each player. Put the remaining cards face down in a draw pile.
- If the player has three cards that make a fact family, he/she places them on the table and recites the four facts related to the family. For example, if someone has a 2, 3, and 5, the facts are: $2 + 3 = 5$, $3 + 2 = 5$, $5 - 2 = 3$, $5 - 3 = 2$.
- The player then asks another player for a specific card rank. For example: "Sue, please give me a 6."
- If the other player has the requested card, she must give the person her card.
- If the person asked doesn't have that card, he/she says, "Go fish."
- The player then draws the top card from the draw pile.
- If he/she happens to draw the requested card, he/she shows it to the other players and can put the fact family on the table. Otherwise, play goes to the next person.
- Play continues until either someone has no cards left in his/her hand or the draw pile runs out. The winner is the player who then has the most sets of fact families.

What Do Children Already Know?

Young children are naturally inquisitive and are sponges for information. The whole purpose of this activity is to help children verify the information they know (or think they know) and to get them thinking “beyond the box” about a particular subject.

Before reading the book, ask the children what they know about the subject. A list of suggested questions is below. The children should write down their “answers” (or adults for them if the children are not yet writing) on the chart found in Appendix A, index cards, or post-it notes.

Their answers should be placed on a “before reading” panel. If doing this as a group, you could use a bulletin board or even a blackboard. If doing this with individual children, you can use a plain manila folder with the front cover the “before reading” panel. Either way, you will need two more panels or sections—one called “correct answer” and the other “look for correct answer.”

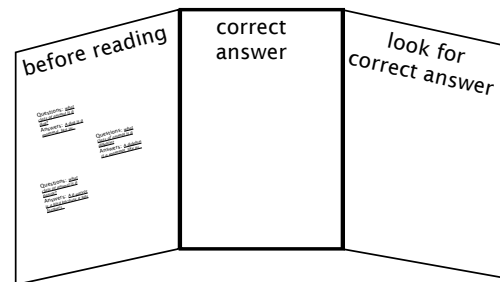
Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.

After reading the book, go back to the questions and answers and determine whether the children’s answers were correct or not.

If the answer was correct, move that card to the “correct answer” panel. If the answer was incorrect, go back to the book to find the correct information.

If the child/children have more questions that were not answered, they should look them up.

When an answer has been found and corrected, the card can be moved to the “correct answer” panel.



Pre-Reading Questions

What type of animal are butterflies?

How many different kinds of butterflies do you think there are?

What are some names of butterflies?

What do you know about butterfly life cycles?

Where do you think butterflies lay their eggs?

What kind of food do you think butterflies eat?

What kind of food do you think caterpillars eat?

What are some ways that you could attract butterflies to your yard?

Comprehension & Writing Prompts

Objective Core Language Arts, Speaking and Listening: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

Retell stories, including key details, and demonstrate understanding of their central message or lesson.

Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

What were Ed & Rosie doing and why?

Who caught the most butterflies the first few days?

Who caught the most butterflies the last few days?

What was that person doing to catch more butterflies?

What are some of the things she did to attract butterflies?

What happened at the end to let her win?

How many total butterflies were caught each day?

Describe the pattern in the number of butterflies they caught on each day.

Language Arts & Science: Five Senses

Objective Core Language Literature 4: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.

Re-read the story and write down any words that relate to the five senses:

Touch	Taste	Sight	Smell	Hearing

Observation Skills: Art Scavenger Hunt

Objective Core Language Arts Integration of Knowledge and Ideas: Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).

Use illustrations and details in a story to describe its characters, setting, or events.

What is the girl doing after reading parts of her book? Why do you think she's doing this?

Can you find the caterpillar in any illustrations?

On which day do you first see the monarch chrysalis (pupa) and where is it?

Do you ever see the caterpillar and the chrysalis in the same illustration? Why or why not?

Can you keep track of "the score" by looking at the tally marks?

Can you find the frog in the illustrations? Why do you think the illustrator added the frog?

Language Arts: Vocabulary Game

This activity is a very general idea and is designed to get children thinking of vocabulary words that will then be used as the beginning vocabulary list for a science lesson.

Select an illustration from the book and give the children a specific length of time (five minutes?) to write down all the words they can think of about the particular subject. If you do not have classroom sets of the book, it is helpful to project an illustration on a whiteboard. Check Web site (www.ArbordalePublishing.com) for book “previews” that may be used.

The children’s word list should include anything and everything that comes to mind, including nouns, verbs, and adjectives. At the end of the time, have each child take turns reading a word from his/her list. If anyone else has the word, the reader does nothing. However, if the reader is the only one with the word, he/she should circle it. While reading the list, one person should write the word on a flashcard or large index card and post it on a bulletin board or wall.

At the end, the child with the most words circled “wins.” And you have a start to your science vocabulary list. Note: if a child uses an incorrect word, this is a good time to explain the proper word or the proper usage.

Cross-Curricular: Using the Words

The following activities may be done all at once or over a period of several days.

- Sort vocabulary words into nouns, verbs, adjectives, etc. and write what they are on the backs of the cards. When the cards are turned over, all you will see is “noun,” etc. (these can then be used for the “silly sentences” on the next page).
- After the cards have been sorted, go over the categories to ensure that all cards have been placed correctly. (Mistakes are a great opportunity to teach!)
- Choose two words from each category and write a sentence for each word, using the word correctly.
- Write a story that uses at least ten vocabulary words from the word sort.
- Have children create sentences using their vocabulary words. Each sentence could be written on a separate slip of paper. Have children (individually or in small groups) sort and put sentences into informative paragraphs or a story. Edit and re-write paragraphs into one informative paper or a story.

Cross Curricular: Silly Sentences

Objective Core Language Arts: Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.

Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

Use frequently occurring adjectives.

Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

1. To _____ verb butterflies, you need to provide a food source (_____ noun or pollen) and a _____ noun _____ noun for the female to lay her _____ noun s.
2. Each _____ noun species uses _____ adjective flowers, grasses, or trees as their host plant. _____ noun s will eat from that special plant.
3. Fiery Skippers lay their eggs in _____ adjective grass. _____ noun s lay their eggs on plants like carrots, parsley, dill, fennel, and Queen Ann's Lace.
4. _____ noun s use _____ noun poison to protect themselves. Monarchs lay their eggs in milkweed.
5. Some butterflies have _____ adjective, _____ adjective wings that _____ verb them against dead leaves.
6. Many butterflies _____ verb (drink nectar) from _____ adjective plants.
7. Some male butterflies _____ verb (drink from mud puddles) to get the _____ noun s they need.

Word List (by parts of speech)

adjective	noun	
big, bigger	abdomen	larva (larvae pl)
brown	adaptation	leaf (leaves-pl)
different	adult	leg
dry	antennae	life cycle
flowering	Arthropod	metamorphosis
graceful	backbone	milkweed
hard	barnyard	Monarch
native	behavior	moth
new	butterfly(ies)	nectar
over-ripe	camouflage	nutrient
ragged	caterpillar	Painted Lady
tall/taller/tallest	chrysalis	poison
	Clouded Sulphur	pollen
verb	cocoon	proboscis
adapt	Common Buckeye	puddling
attract	complete metamorphosis	pupa
camouflage	egg	Question Mark
classify	exoskeleton	Red-spotted Purple
drink	eye	six
eat	Fiery Skipper	source
flutter	forewings	species
fly	fruit	tally mark
grow	Giant Swallowtail	taste
hatch	grass	thorax
lay	Gulf Fritillary	Western Tiger Swallowtail
molt	head	wings
nectar	heart	
protect	hindwings	
puddle	host plant	
shed	incomplete metamorphosis	
smell	Insect	
unfold	juice	

Word Search

Find the hidden words. Even non-reading children can match letters to letters to find the words! Easy—words go up to down or left to right (no diagonals). For older children, identify the coordinates of the first letter in each word (number, letter).

	A	B	C	D	E	F	G	H	I	J
1	A	I	N	S	E	C	T	C	A	M
2	B	U	T	T	E	R	H	S	Z	O
3	D	O	J	I	P	D	O	V	K	A
4	O	B	U	T	T	E	R	F	L	Y
5	M	I	I	M	O	N	A	R	C	H
6	E	N	C	O	J	E	X	D	I	E
7	N	G	E	L	H	C	E	U	T	A
8	I	E	A	T	O	T	W	E	X	D
9	W	I	N	G	S	A	P	U	P	A
10	F	L	Y	O	S	R	E	Q	U	N

BUTTERFLY

THORAX

JUICE

MOLT

PUPA

INSECT

HEAD

ABDOMEN

MONARCH

NECTAR

WINGS

EAT

Compare/Contrast Butterflies

Use the information on the next ten pages to compare and contrast the different butterflies mentioned in the book.

Describe the eggs. What color are they?

Describe the host plant (where the eggs are).

What do the caterpillars look like?

What do the pupas look like?

What do the adult butterflies look like?

Compare the butterflies by wing span size.

Maps from www.Gardenswithwings.com

size data from www.butterfliesandmoths.org

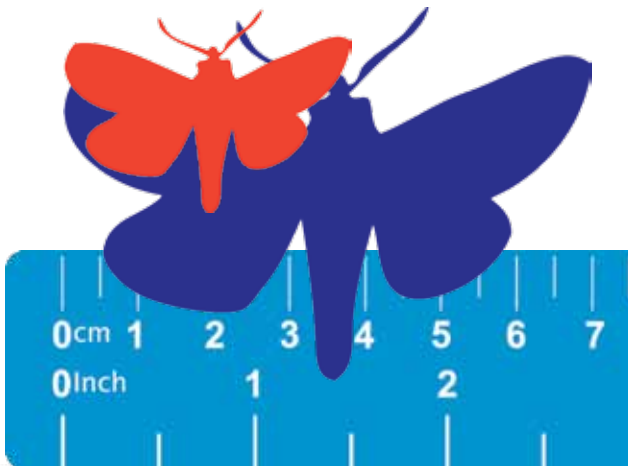
photos from various non-copyrighted internet sources

Using these maps as a reference, color the areas where these animals live on the blank map (in appendix). Do any butterflies live in the same state or province as you?

Clouded Sulphur



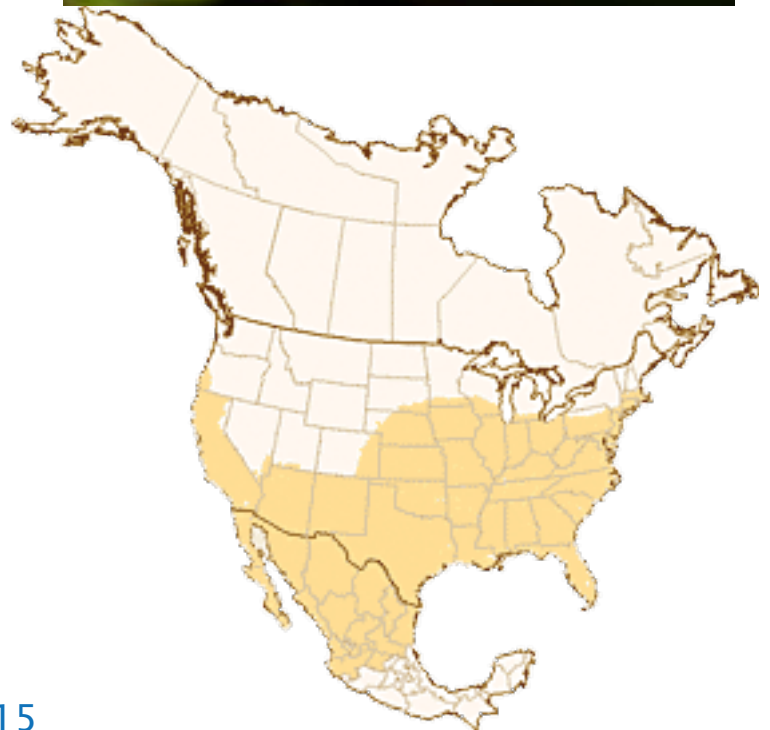
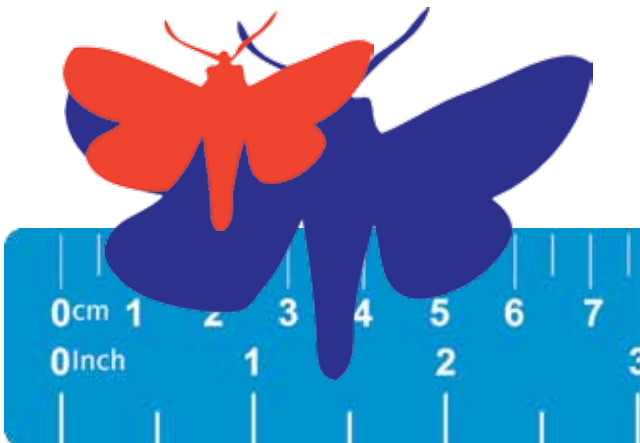
1 1/2 - 2 3/4 inches (3.8 - 7 cm)



Common Buckeye



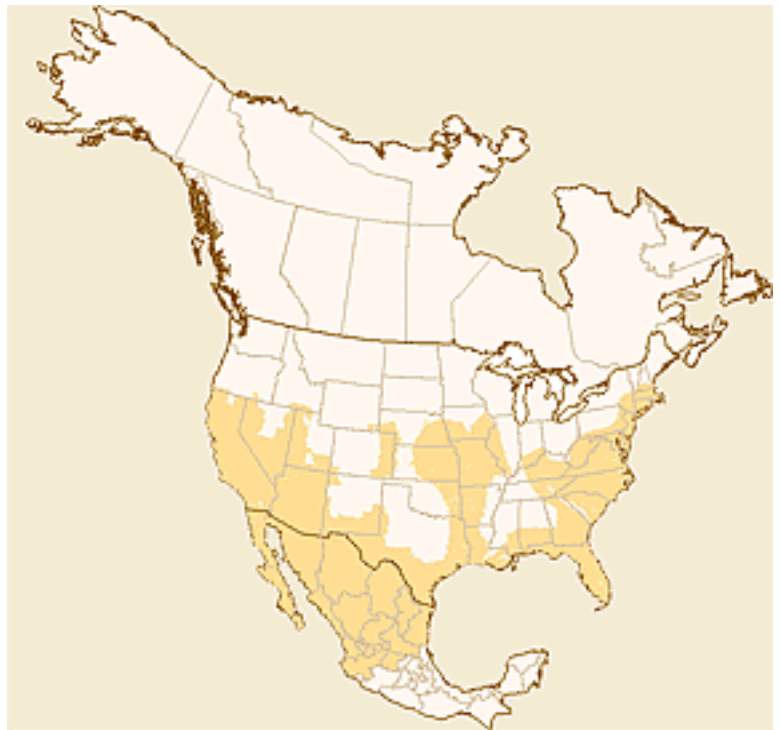
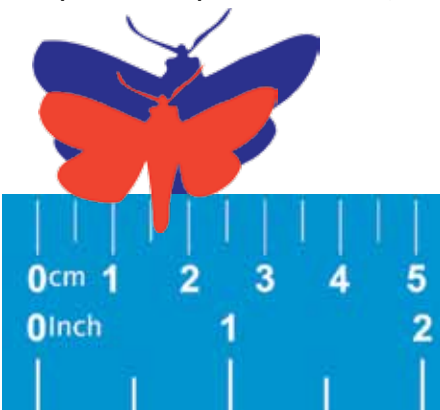
1 5/8 - 2 3/4 inches (4.2 - 7 cm)



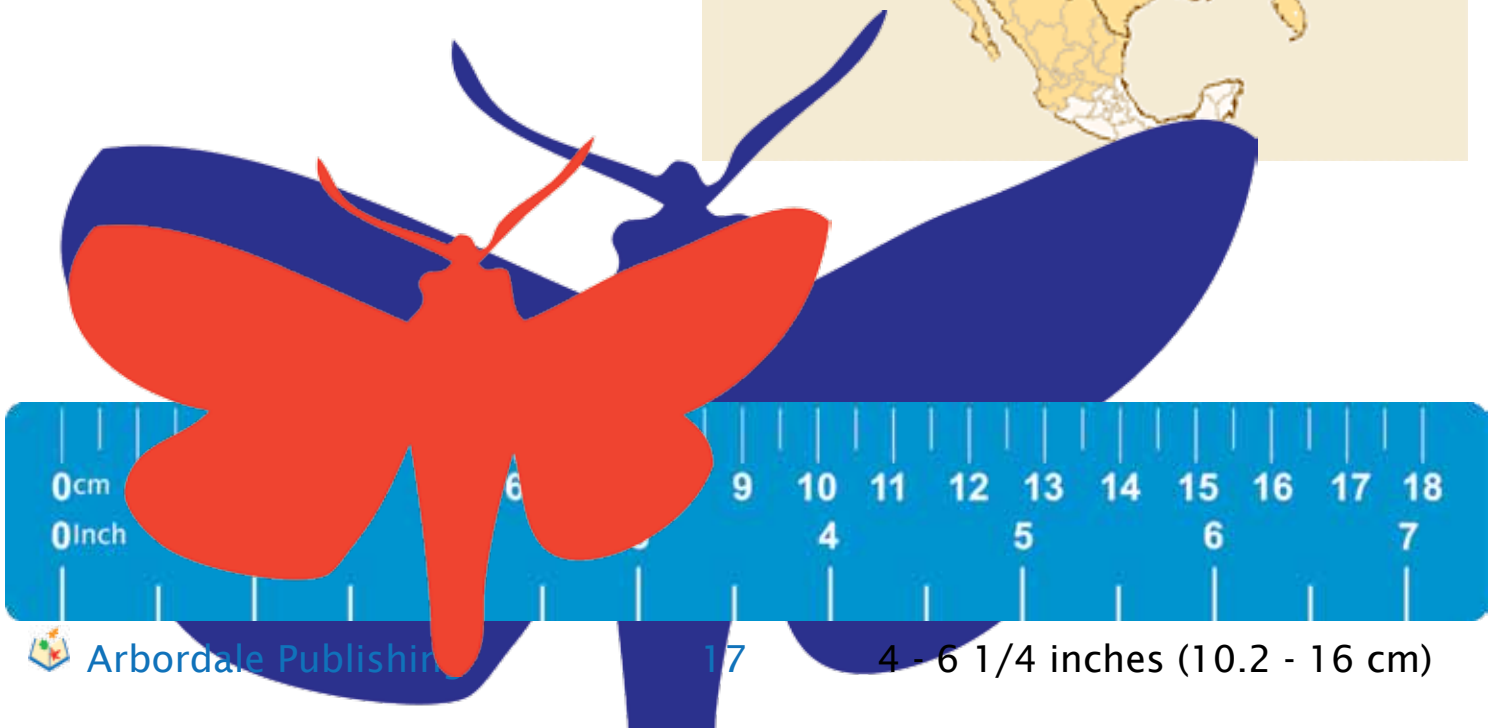
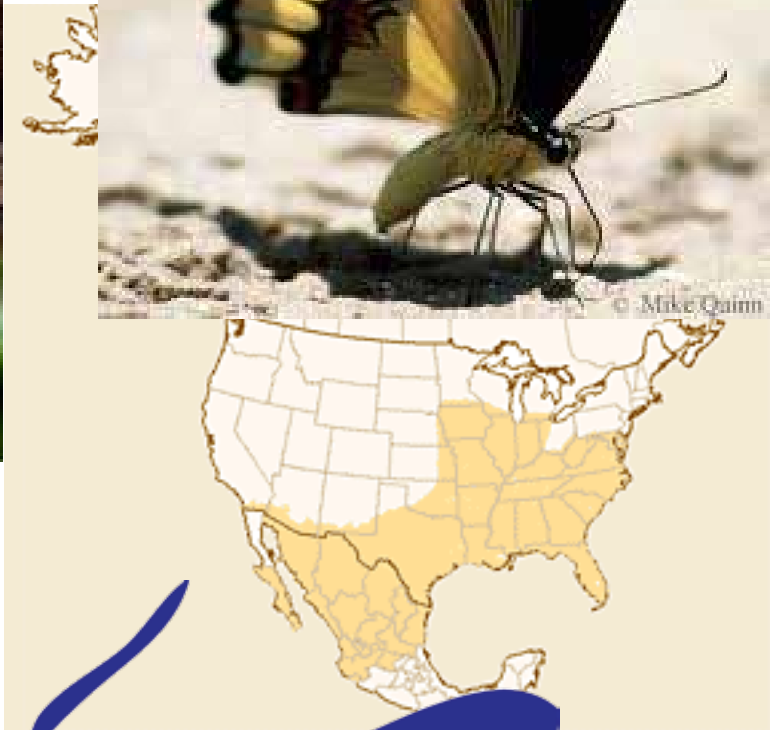
Fiery Skipper



1 1/4 - 1 1/2 inches (3.2 - 3.8 cm)



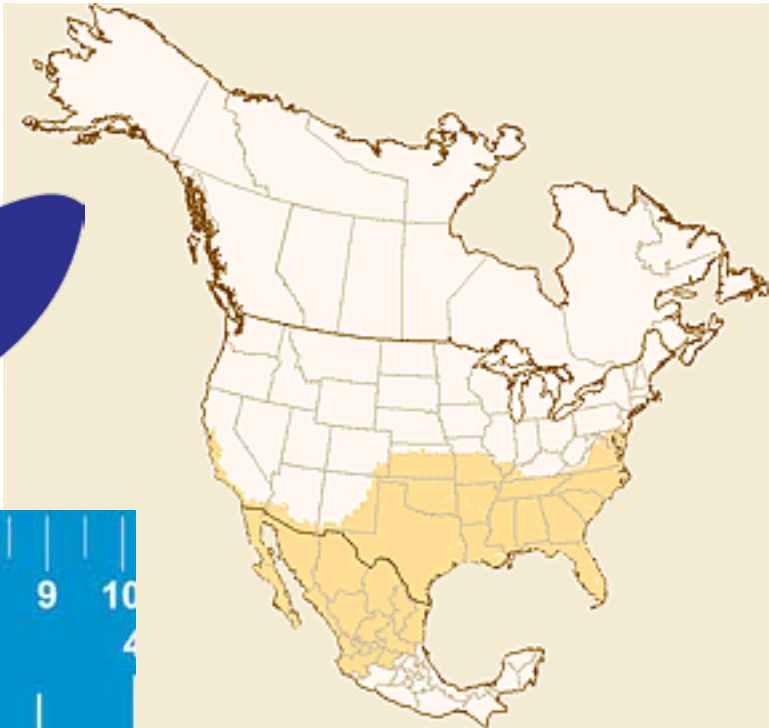
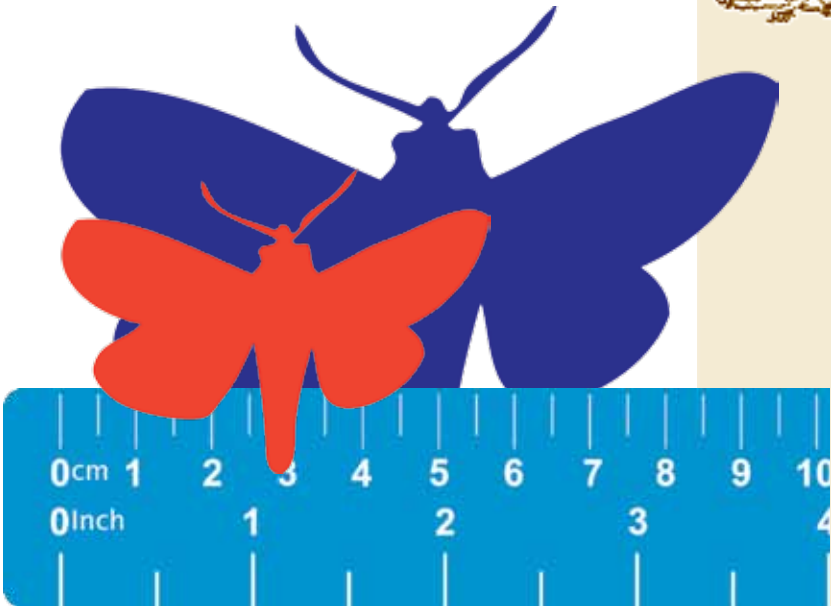
Giant Swallowtail



Gulf fritillary



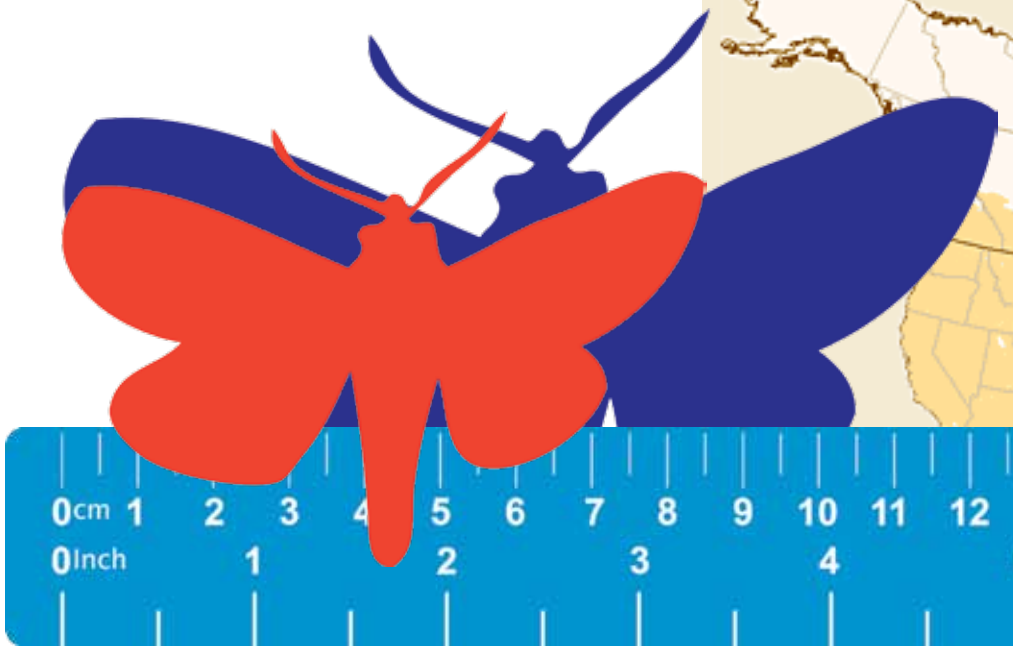
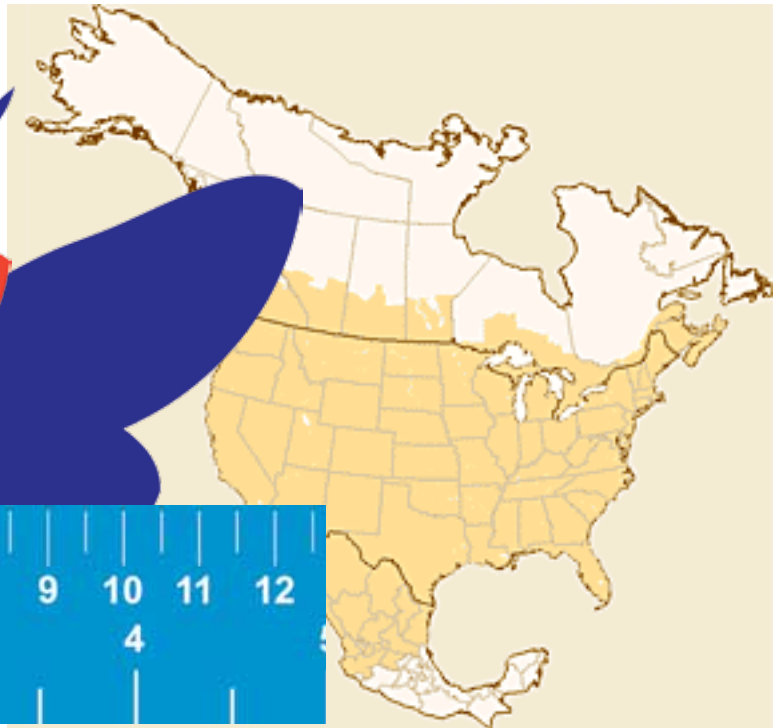
2 1/2 - 3 3/4 inches (6.3 - 9.5 cm)



Monarch



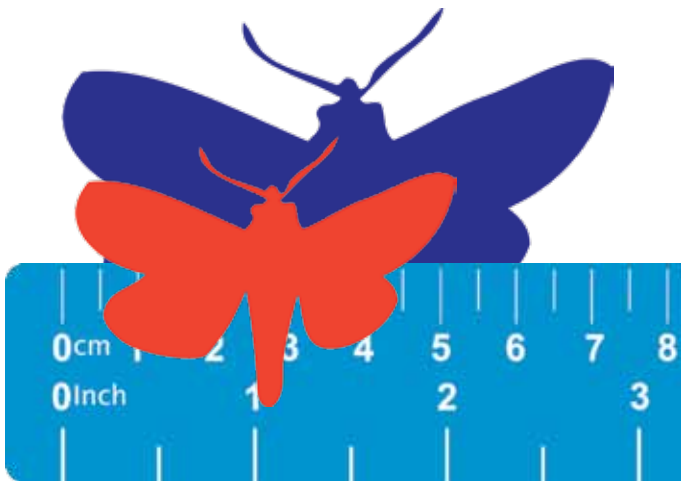
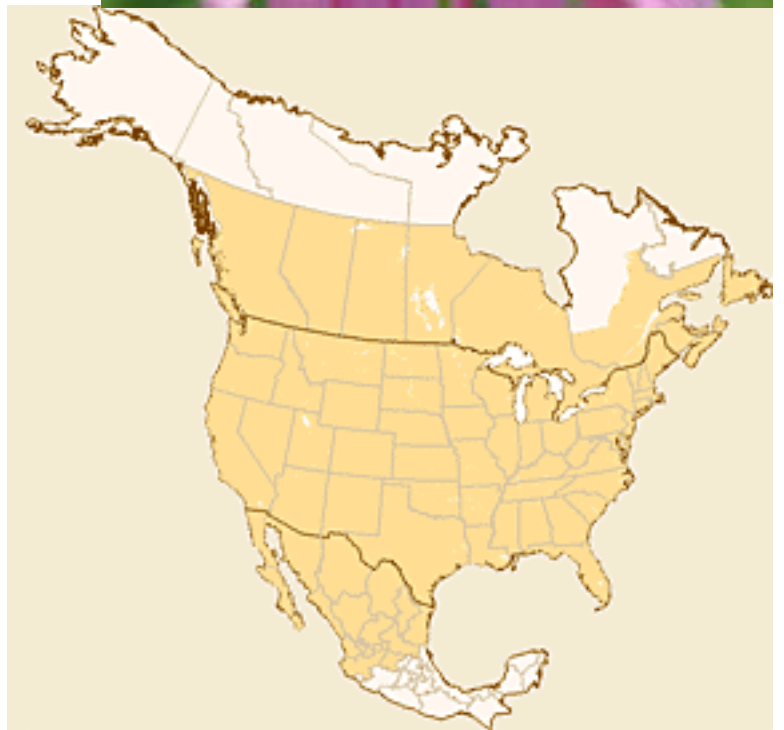
3 3/8 - 4 7/8 inches (8.6 - 12.4 cm)



Painted Lady



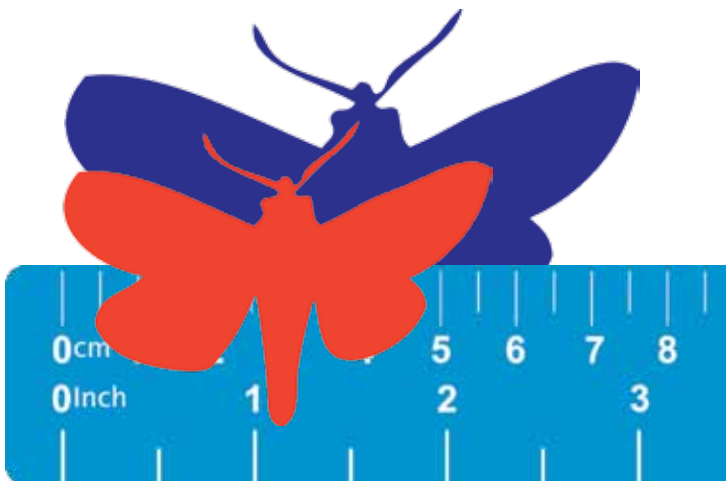
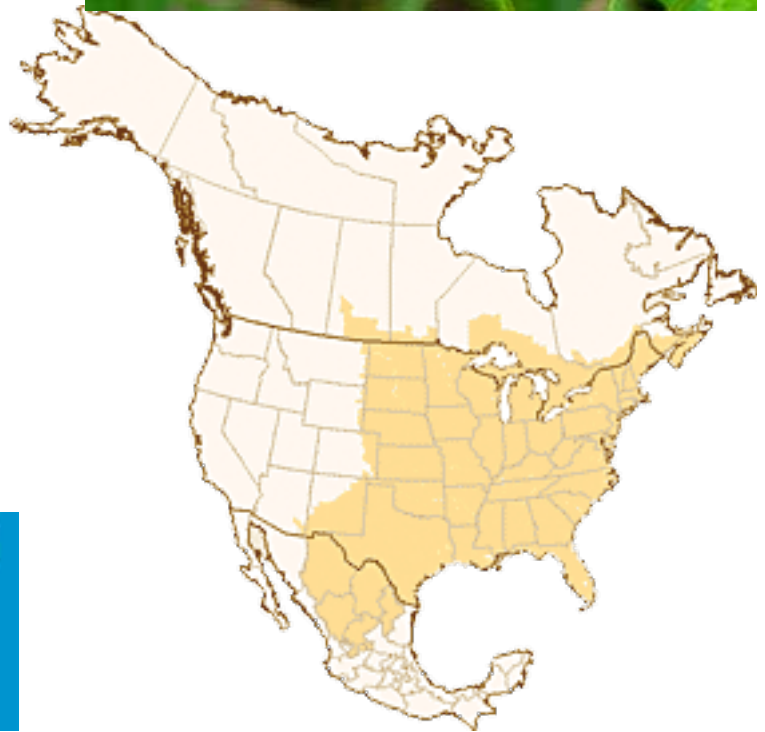
2 - 2 7/8 inches (5.1 - 7.3 cm)



Question Mark



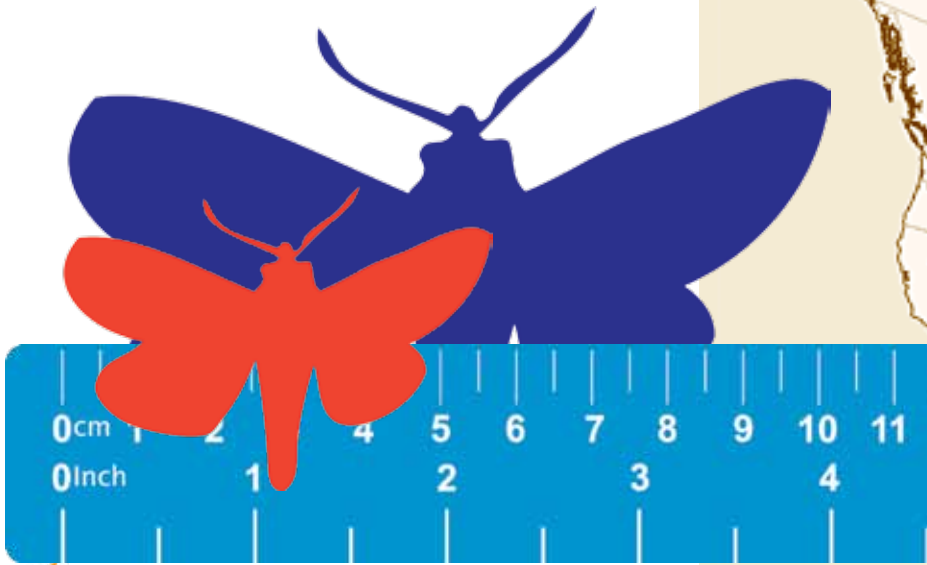
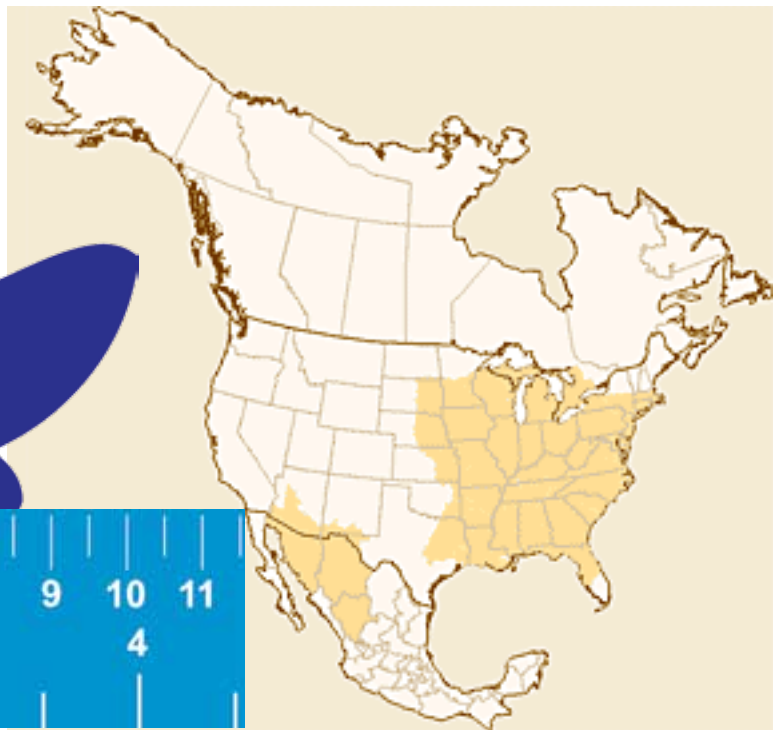
2 1/4 - 3 inches (5.7 - 7.6 cm)



Red-spotted Purple



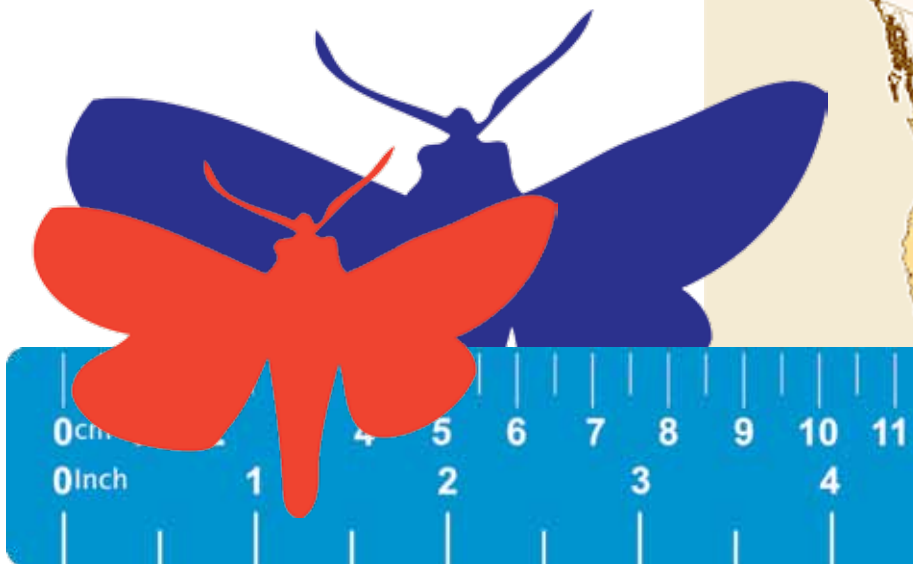
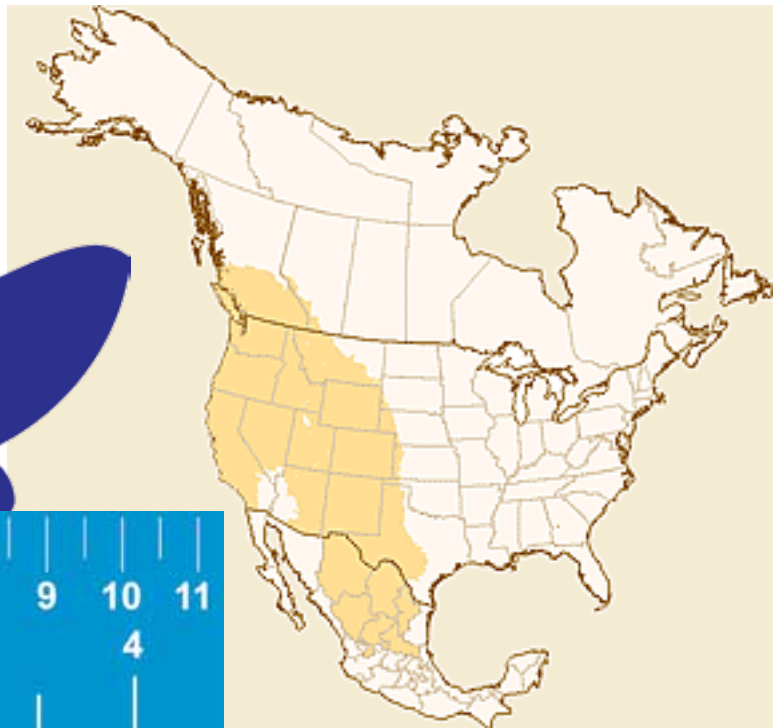
2 1/4 - 4 inches (5.7 - 10.1 cm)



Western Tiger swallowtail



2 3/4 - 4 inches (7 - 10 cm)



butterfly

my definition

my drawing

caterpillar

my definition

my drawing

pupa

my definition

my drawing

complete metamorphosis

my definition

my drawing

True or False?

Do you think the statement is true or false?








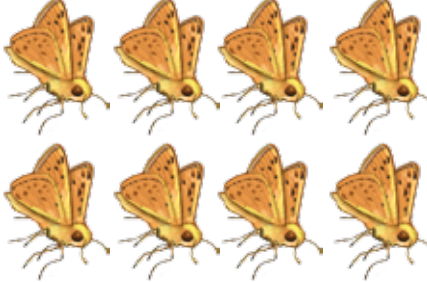
- 1 Butterflies are a type of insect.
- 2 Caterpillars drink nectar, called nectaring, from flowers.
- 3 Monarchs only lay eggs on milkweed.
- 4 Butterflies spin cocoons.
- 5 All butterflies have bright colors.
- 6 Some male butterflies drink muddy water or eat manure to get the salt and nutrients they need.
- 7 A host plant is the plant on which a butterfly feeds.
- 8 To nectar means to drink nectar from flowers.
- 9 To puddle means to swim in a puddle.
- 10 It is easy to plant a butterfly garden.

Tens Make Friends

Color the squares in two different numbers so the numbers add to 10.

1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

Math Cards

<p>1</p> 	<p>2</p> 
<p>3</p> 	<p>4</p> 
<p>5</p> 	<p>6</p> 
<p>7</p> 	<p>8</p> 

9



Monarch

Identification: Upperside of male is bright orange with wide black borders and black veins; hindwing has a patch of scent scales. Upperside of female is orange-brown with wide black borders and blurred black veins. Both sexes have white spots on borders and apex.



Giant Swallowtail

Identification: Forewing with diagonal band of yellow spots. Tails are edged with black and filled with yellow.

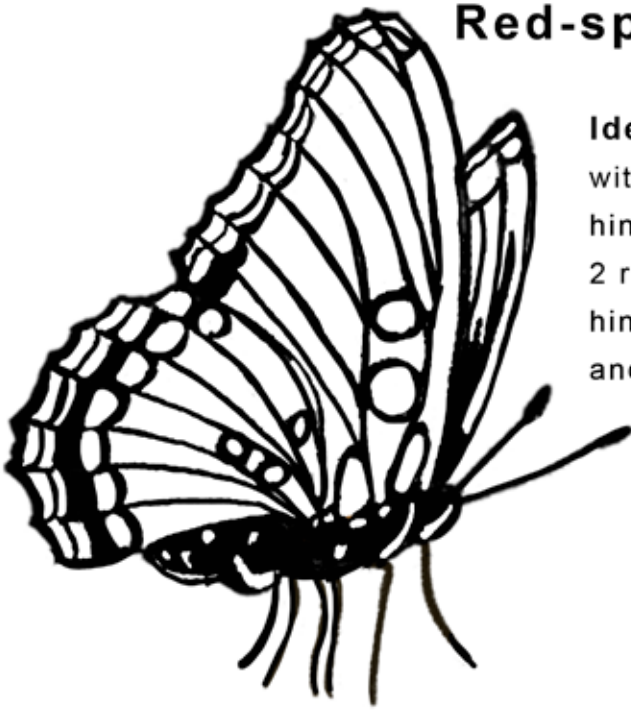


Western Tiger Swallowtail

Identification: Upperside of hindwing with upper-most marginal spot yellow or lacking. Underside of forewing with separate yellow spots forming marginal band. Hindwing has narrow marginal spots and no orange tint except for 2 spots near end of inner margin.



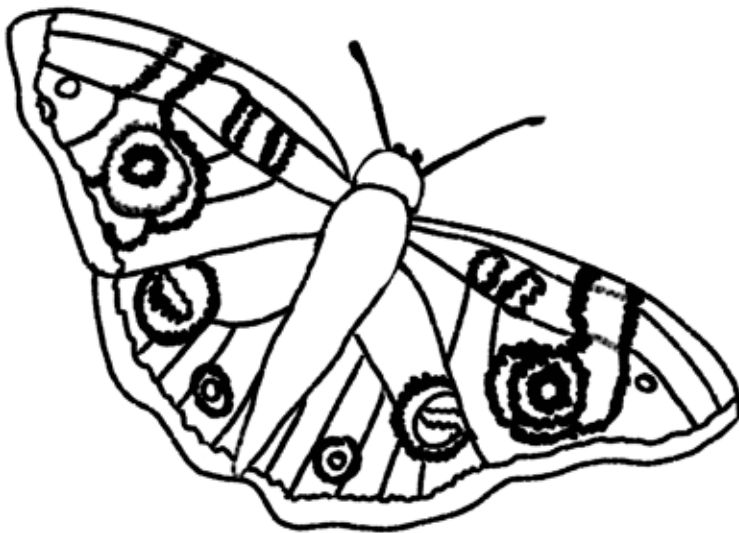
Red-spotted Purple or White Admiral



Identification: Upperside is blue to blue-green with much iridescence on the outer part of the hindwing. Underside is dark brown. Forewing has 2 red-orange bars near the base of the leading edge; hindwing has 3 red-orange spots near the base and a submarginal row of red-orange spots.

Fiery Skipper

Identification: Antennae are very short. Male wide black stigma. Underside of the hindwing is scattered with small black spots. Female: Upperside is dark brown with a very irregular orange band. Underside of hindwing is pale brown with paler checks.



Common Buckeye

Identification: Upperside is brown. Forewing with 2 orange cell bars and 2 eyespots; part of white subapical band appears in the largest, lower eyespot. Hindwing has 2 eyespots; upper one is largest and contains a magenta crescent. Underside of hindwing is brown or tan in the wet season (summer) form and rose-red in the dry season (fall) form.

Glossary

Word	Definition	Part of Speech	Spanish
abdomen	the back of the three main body divisions of an insect: contains major organs	noun: body part	abdomen
adapt	to change, to alter, to adjust to a changing environment or situation	verb	adaptar
adaptation	a physical or behavioral feature of a plant or animal that allows it to survive in its environment	noun	adaptación
adult	the final stage of an animal that goes through metamorphosis	noun	adulto
animal	any member of the kingdom Animalia: can move voluntarily, get and eat food, and respond to stimuli	noun	animal
antennae	long, thin, feelers from an insect's head that inform it about the feel, sound, taste, smell, temperature, and humidity in the world outside of its skeleton (plural is antenna)	noun: body part	antena
arthropod	animals with exoskeletons, jointed legs, and segmented bodies (includes insects, spiders, crustaceans, centipedes, and millipedes)	noun: classification	Artrópodo
attract	to pull towards, to make something move closer	verb	atraer
backbone	the vertebrae forming the axis of the skeleton and protecting the spinal cord	noun: body part	columna vertebral, espina dorsal
barnyard	the area on a farm where animals live	noun	corral
bask	to lie in or be exposed to a pleasant warmth (sunshine)	verb	tomar el sol
behavior	an organism's actions and responses to its environment and other organisms in that same environment	noun	conducta

Word	Definition	Part of Speech	Spanish
big, bigger, biggest	large (size, height, or amount) (Dolch) Sight word, Pre-K, K	adjective	grande
black	a dark color, the opposite of white	adjective	negro
brown	a color	adjective	marrón
butterfly(ies)	a type of insect, diurnal, often with bright colored wings, known for their "fluttering"	noun: animal	mariposa
camouflage	physical adaptations that allow organisms to hide in their surroundings	noun	camuflaje
camouflage	to hide by disguise or color	verb	camuflar
caterpillar	larva of a butterfly or moth	noun: animal	oruga
chrysalis	the pupa stage of a butterfly	noun	crisálida
classify	to arrange or organize according to class or category	verb	clasificar, ordenar
Clouded Sulphur	a common yellow-ish butterfly often seen in lawns, meadows throughout most of North America	noun: animal	nebulosa de azufre
cocoon	the pupa stage of a moth	noun	capullo
Common Buckeye	a common brown-winged butterfly with eye spots, often seen low to the ground in open areas	noun: animal	ninfa coenia
complete metamorphosis	a series of changes in the body form during their life cycle	noun	metamorphosis completa
different	not the same as something or someone else	adjective	diferente
drink	to bring liquid into the body usually through the mouth (Dolch) Sight word, grade 3	verb	beber, tomar
dry	not wet or moist	adjective	seco
eat	to bite and swallow food as nourishment	verb	comer

Word	Definition	Part of Speech	Spanish
egg	the roundish reproductive object produced by bird, reptile, and a few mammal females	noun	huevo
exoskeleton	the hard covering system on the outside of an insect or other invertebrate	noun: body part	esqueleto exterior
eye	the organs with which we see; 2) the center of a tropical storm or hurricane, with a roughly circular area of light winds and rain-free skies.	noun	ojo
Fiery Skipper	a small (about an inch in size) orange-yellow butterfly with black spots (males) or brown with orange-yellow spots (female) often seen in sunny	noun: animal	arena phyleus
flower	the blossom of a plant, contains seeds	noun	flor
flowering	bursting with blooms	adjective	en flor
flutter	to move back and forth	verb	aletear
fly	(Dolch) Sight word, grade 1	verb	volar
forewings	the two upper wings (closest to the head) in flying insects like adult butterflies or moths	noun	alas anteriores
fruit	a pulpy or juicy plant part that contains the seeds including apple, peach, orange, berries, nuts, burs	noun	fruta
Giant Swallowtail	a large butterfly, black with yellow spots, common in Eastern half of North America to the Rockies	noun: animal	gigante de Swallowtail
graceful	beautiful manner or movement	adjective	agraciado
grass	a nonwoody plant with hollow, round stems and narrow leaves that grow from the base	noun	hierba
grow	to get bigger in size (Dolch) Sight word, grade 3	verb	crecer

Word	Definition	Part of Speech	Spanish
Gulf Fritillary	a beautiful butterfly found in Southeastern US, Mexico, Central and South America: orange with dark spots	noun: animal	alalarga vanillae
hard	not soft, solid and firm to the touch	adjective	duro
hatch	to emerge from an egg, pupa, or chrysalis	verb	incubar
head	the front body part of insects; has mouthparts, eyes, and antennae	noun: body part	cabeza
heart	the organ that pushes blood through an animal's body	noun	corazón
hindwings	the two lower wings (farthest from the head) in flying insects like adult butterflies or moths	noun	alas posteriores
host plant	the plant on which an adult female butterfly lays her eggs; after hatching, the caterpillars will eat from that plant--often a symbiotic relationship	noun	planta huésped
incomplete metamorphosis	life cycle with gradual changes through three stages: egg, nymph, and adult	noun	metamorfosis incompleta
Insect	a six-legged arthropod, usually with a hard exoskeleton and three main body parts	noun: classification	insecto, bicho
invertebrate	animal without a backbone; about 97% of all known species are invertebrates	noun: classification	invertebrado
juice	the liquid that comes from a fruit or vegetable when squeezed	noun	jugo
larva (larvae pl)	the immature free-living form of most invertebrates, amphibians, and fish	noun: animal baby	larva
lay	to produce (an egg)	verb	poner

Word	Definition	Part of Speech	Spanish
leaf (leaves-pl)	a growth from a plant stem that is typically a flattened, greenish organ; a unit of the foliage, food manufacture by photosynthesis	noun	hoja
leg	a structure in animals used for locomotion	noun: body part	pierna, pata
life cycle	a series of stages that occur during the lifetimes of all organisms	noun	ciclo de vida
metamorphosis	a change in form and often habits as an animal develops from egg to adult	noun	metamorfosis
milkweed	a family of plants having milky juice and pods that split open to release seeds with downy tufts"	noun: plant	asclepia
molt	to shed a coat: fur, feathers, skin, or hard outer covering	verb	mudar la piel
monarch	a common butterfly that lays eggs in milkweed and the caterpillars and adult butterflies use the milkweed poison to protect themselves; migrators	noun: animal	monarca
moth	a type of flying, nocturnal insect, often confused with butterfly	noun	mariposa nocturna, polilla
mouthparts	parts of an animal used as a mouth (adaptation)		aparato bucal
muddy	covered with mud (soft, wet earth)	adjective	lodoso
native	any species (including humans) found in the region of its origin	adjective	nativas
nectar	a sweet liquid from flowers or fruits, food for pollinators (hummingbirds, insects, and gathered by bees for making honey)	noun: plant part	néctar

Word	Definition	Part of Speech	Spanish
nectar	to drink nectar	verb	néctar
new	opposite of old, (Dolch) Sight word, Pre-K & K	adjective	nuevo
nutrient	a substance that provides the nourishment needed for the survival of an organism	noun	nutrientes, alimentos nutritivos, sustancia nutritiva
orange	a color	adjective	naranjado, anaranjado
outer	on or around the outside of something, far from the center of something	adjective	externo
over-ripe	past the stage of ripe, rotting	adjective	demasiado madura
Painted Lady	a common brown-orange butterfly found on all continents except Australia and Antarctica	noun: animal	cardera
plant	any member of the kingdom Plantae that usually produce their own food through photosynthesis	noun: plant	planta
poison	something that harms or destroys	noun	tóxico
pollen	fine powder-like (often yellow) grains made by seed plants for fertilizing	noun	polen
proboscis	long drinking tube used by insects like the butterfly	noun: body part	proboscis
protect	to provide for, defend	verb	proteger
puddle	to drink from mud puddles	verb	charco
puddling	a male butterfly behavior of sipping moisture from mud puddles to take in salts and minerals from the soil	noun	charco

Word	Definition	Part of Speech	Spanish
pupa (pupae pl)	a stage in the life cycle of an insect between larvae and adult; the pupa appears dormant but inside the protective coating, changes are taking place, moth pupa=cocoon, butterfly pupa=chrysalis	noun	pupa
pupate	to turn into and exist as a pupa	verb	pupar
Question Mark	a red-orange butterfly with black spots and white lines on the hindwings that some think look like a question mark	noun: animal	ninfa interrogationis
ragged	uneven, opposite of smooth	adjective	andrajoso
red	a color, (Dolch) Sight word, PreK-K	adjective	rojo/a
Red-spotted Purple	a shiny butterfly that looks different colors depending on the light	noun: animal	monja astianax
shed	to cast off, to separate	verb	quitarse
six	a counting number (Dolch) Sight word, grade 3	noun	seis
smell	to sense something by aroma	verb	oler
source	the beginning of something or from where something is obtained	noun	origen
species	a group of organisms different from all others; can't breed with other groups	noun: classification	especies
spotted	having spots	adjective	moteado
straw	the yellow stems of dried grasses, 2) a hollow tube through which to drink	noun	paja
tall/taller/tallest	greater (and comparative) height than something or someone else	adjective	alto, mas alto, lo mas alto
tally mark	a mark used to keep track of data being counted.	noun	marca de conteo

Word	Definition	Part of Speech	Spanish
taste	one of the five major senses (flavor)	noun	gusto
thorax	the middle section of an insect, where its six legs and wings attach to the body	noun: body part	tórax
unfold	to open something that was folded, to happen, to develop	verb	extenderse, abrir
Western Tiger Swallowtail	similar to Eastern tiger swallowtail, common butterfly found in western part of North America	noun: animal	tigre occidental
yellow	a color, (Dolch) Sight word, Pre-K	adjective	amarillo

Answers

Silly Sentences

1. To attract butterflies, you need to provide a food source (nectar or pollen) and a host plant for the female to lay her eggs.
2. Each butterfly species uses different flowers, grasses, or trees as their host plant. Caterpillars will eat from that special plant.
3. Fiery Skippers lay their eggs in tall grass. Black Swallowtails lay their eggs on plants like carrots, parsley, dill, fennel, and Queen Ann's Lace.
4. Monarch butterflies use milkweed poison to protect themselves. Monarchs lay their eggs in milkweed.
5. Some butterflies have ragged brown wings that camouflage them against dead leaves.
6. Many butterflies nectar (drink nectar) from flowering plants.
7. Some male butterflies puddle (drink from mud puddles) to get the nutrients they need.

Word Search

	A	B	C	D	E	F	G	H	I	J
1	A	I	N	S	E	C	T			
2	B	U	T	T	E	R	H			
3	D		J				O			
4	O	B	U	T	T	E	R	F	L	Y
5	M	I	I	M	O	N	A	R	C	H
6	E	N	C	O		E	X			E
7	N	G	E	L		C				A
8		E	A	T		T				D
9	W	I	N	G	S	A	P	U	P	A
10						R				

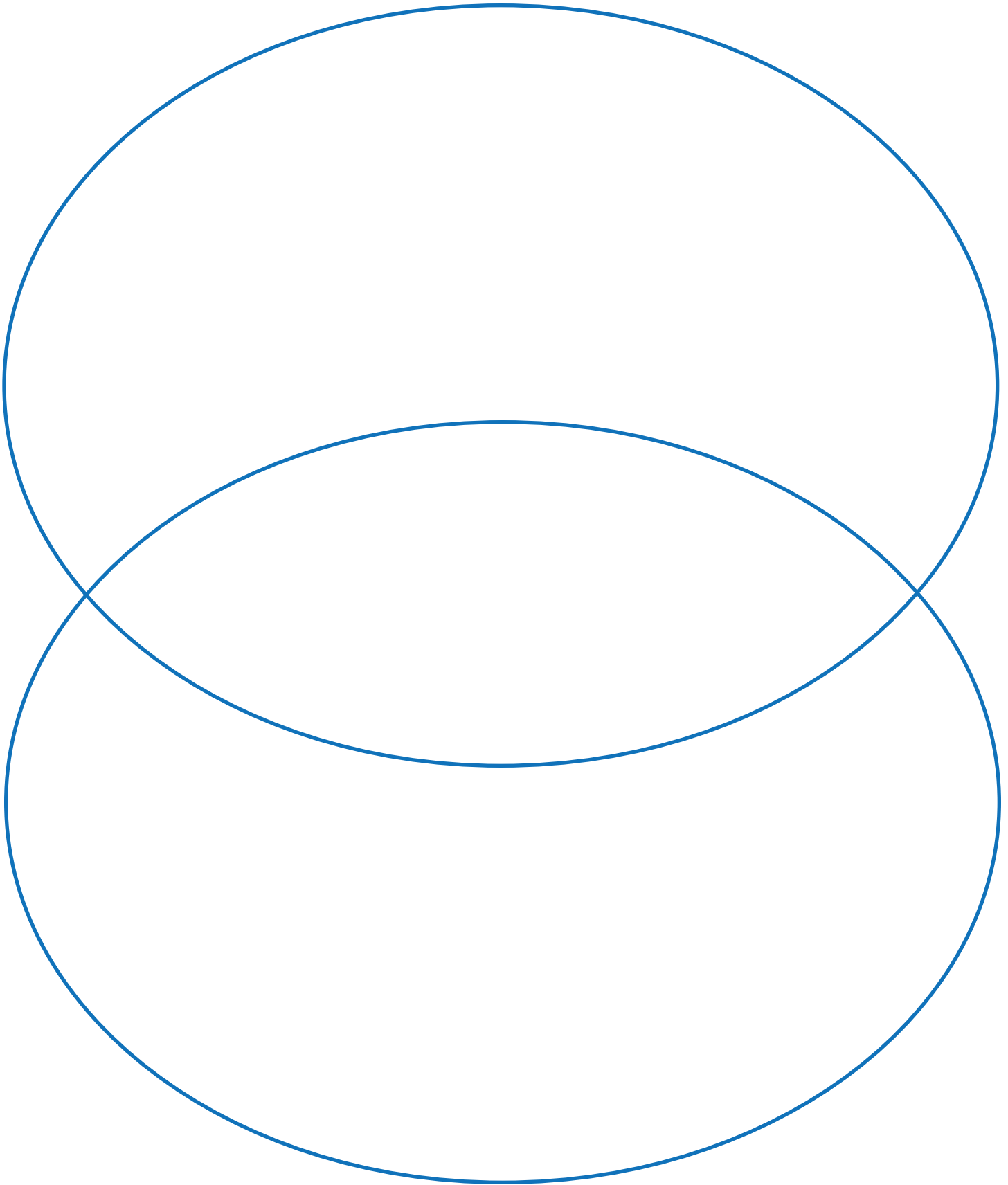
BUTTERFLY	4B	HEAD	5J
THORAX	1G	ABDOMEN	1A
JUICE	3C	MONARCH	5D
MOLT	5D	NECTAR	5F
PUPA	9G	WINGS	9A
INSECT	1B	EAT	8B

True or False

- 1) True,
- 2) False: caterpillars eat leaves of the host plant.
- 3) True: toxins in the milkweed don't hurt the caterpillars but make the butterflies poisonous to their predators.
- 4) False: caterpillars spin pupas. Butterfly pupas are called chrysalis and moth pupas are called cocoons.
- 5) False, some butterflies are brown for camouflage.
- 6) True;
- 7) False: a host plant is where an adult female lays her eggs. When the caterpillars hatch, they will eat the leaves of that plant.
- 8) True,
- 9) False: to puddle is to gather round a mud puddle and drink the muddy water.
- 10) True: all you need to plant are some host and flowering plants. It's best to use plants that are native to your area.

Appendix B—Venn Diagram

Compare and contrast two butterflies.



Appendix C—U.S. Map



Appendix D—North America Map

