

They Just Know Teaching Activity Guide

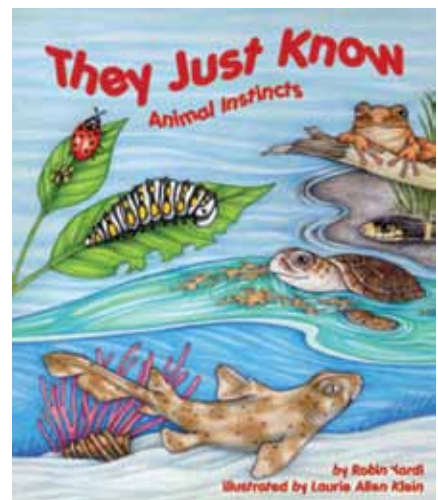


Table of Contents

3	How to Use This Activity Guide (General)
4	What Do Children Already Know?
4	Pre-Reading Questions
5	Comprehension Questions & Writing Prompts
6	Cross-Curricular Vocabulary Activities
7	Word Bank
8	Cross-Curricular Silly Sentences
9	Word Search
10	Edible Sorting and Classifying Activity
12	Classifying Animals
13	Animal Chart
16	Vertebrate Classes
17	Common Invertebrates
18	Dichotomous (Yes/No) Key
19	Animal Sorting Cards
22	Instinct or Learned?
23	Science Journal (Vocabulary)
25	True or False?
26	Math Cards
28	Coloring Pages
31	Answers
33	Appendix A—"What Children Know" Cards
34	Appendix B—Vocabulary Cards

Copyright 2015 © Arbordale Publishing
These activities may be copied for
personal and non-commercial use in
educational settings.
www.ArbordalePublishing.com

Arbordale Publishing
Mt. Pleasant, SC 29464



by Robin Yardi
illustrated by Laurie Allen Klein

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 nearly 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 are 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) 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, aquarium, nature center, park & museum educators: Whether reading a book for story time 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.

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—one called “correct answer” and the other “look for correct answer.”

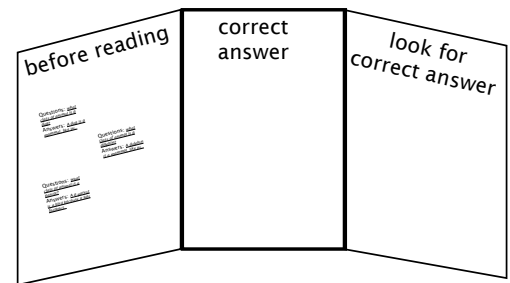
Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.

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 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

1. What are instincts?
2. Do all baby animals have a mother to raise them?
3. How do fish learn how to swim?
4. What is the difference between learning and knowing?
5. Can some baby animals find food without help from their parents?

Comprehension Questions & Writing Prompts

Explain major differences between books that tell stories and books that give information, (paired fiction & For Creative Minds non-fiction)

Identify basic similarities in and differences between two texts on the same topic. (story versus For Creative Minds non-fiction component)

Compare and contrast the most important points presented by two texts on the same topic. (story versus For Creative Minds non-fiction component)

With prompting and support, identify basic similarities in and differences between two texts on the same topic.

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.

1. What does the caterpillar make in order to turn into a butterfly?
2. Do butterflies have to learn how to fly?
3. A horn shark has teeth as soon as it is born. How does that help it eat? Do humans have teeth as soon as they are born?
4. Where do ladybugs lay their eggs?
5. What is a ladybug called just after it hatches?
6. What are baby frogs called?
7. Where are sea turtles born? Where do they go after they hatch?
8. What happens to a kingsnake's skin as the snake grows?
9. Could a baby human live on its own from birth? What does a baby need help with?
10. Name something you do that is an instinct.

Cross-Curricular Vocabulary Activities

Objective Core Language Arts:

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content.

Identify new meanings for familiar words and apply them accurately (e.g., duck is a bird & the verb to duck).

Use words & phrases acquired through conversations, reading/being read to, and responding to texts.

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade-level topic or subject area.

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.

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. It is helpful to project an illustration on a whiteboard. Use eBook or book preview found at www.ArbordalePublishing.com.

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.

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 (on the next page). Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently.

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.
- 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.

Silly Sentence Structure Activity: This "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 correct information in the book.

Word Bank

Build a word bank using words found in the story or For Creative Minds.

Adjective		Noun		Verb
old		caterpillar		eat
first		chrysalis		know
tasty		butterfly		hold
new		flight		lay
shallow		wing		fly
well		egg		stay
dark		plant		swim
deep		sea		eat
scared		light		wear
hungry		teeth		change
warm		larva		harden
red		wish		sing
blue		puff		hop
tiny		leaf		rock
little		tadpole		cross
tinkling		leg		hold
deep		night		wait
warm		sea turtle		dig
soft		flipper		biting
secret		ocean		shop
		sand		shed
		pants		squeeze
		skin		slither
		kingsnake		hunt
		spring		grow

Cross-Curricular Silly Sentences

1. No one reminds a caterpillar to _____ her leaves or to make a _____ when she's _____ enough.
noun verb adjective
2. Mother butterflies lay their _____s on a _____ plant and _____ away.
noun adjective verb
3. Nobody tells a horn shark to stay in the _____ end until he can _____ well enough.
adjective verb
4. No one makes sure a ladybug _____ wears a helmet while her shell _____s color and _____s.
verb noun verb
5. Mother ladybugs _____ their eggs under a _____ and _____ away.
verb verb noun
6. When it's time to _____ in the _____, peepers all know the same _____ song, and they all sing along.
verb noun adjective
7. No one _____s sea turtle hatchlings to sleep, or sings a _____ song, all _____ long.
verb adjective noun
8. New kingsnakes just _____ how to hunt and shed their _____ as they grow, all on their own.
verb noun

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	f	k	l	i	b	c	q	h	o	p
2	s	e	a	t	u	r	t	l	e	r
3	r	m	d	f	t	s	z	j	p	u
4	p	x	y	a	t	g	b	a	b	y
5	e	h	b	s	e	s	w	i	m	l
6	e	p	u	i	r	h	n	e	s	a
7	p	w	g	n	f	e	h	d	h	s
8	e	o	y	g	l	d	m	g	a	k
9	r	t	w	r	y	a	z	l	r	n
10	h	k	i	n	g	s	n	a	k	e

butterfly
shark
ladybug
peeper
sea turtle
kingsnake
baby
shed
swim
hop
sing

Edible Sorting and Classifying Activity

Objective Core Language Arts Vocabulary Acquisition and Use: Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.

Objects and materials can be sorted and described by their properties. (color, shape, size, weight and texture)

Use whole numbers, up to 10, in counting, identifying, sorting, and describing objects and experiences.*

Gather a cup of edible “sorting items.” For example:

- As many different kinds of M&Ms as you can find
- Chocolate & peanut butter chips
- Hershey Kisses
- Peanuts or other type of nuts



Ask the children to sort the items into groups. There is no right and wrong, only what makes sense to the child. When finished, ask the child:

What feature or attribute (color, size, ingredient, etc.) did you use to sort the items?

- Were there some items that fit more than one group or don't fit any group?
- If so, how did the child decide which attribute was more important?
- How are various objects similar and different?
- Was it easy to sort or were there some items that were a little confusing?

If more than one person did this, did everyone sort by the same attribute? To extend the learning, graph the attributes used to sort the items (blank graph below).

Graph the attributes that children used to sort their items. (Graph provided on next page).

What was the most common attribute (size, shape, color, etc.) used?

10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
attribute				

Classifying Animals

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.

Just as we sort candy, scientists sort all living things into groups to help us understand and connect how things relate to each other. Scientists ask questions to help them sort or classify animals.

Based on the answers to the questions, scientists can sort the living organisms. The first sort is into a Kingdom. There are five commonly accepted Kingdoms: Monera, Protista, Fungi, Plantae, and Animalia. All of the living things in this book belong to Animalia or the Animal Kingdom.

The next big sort is into a Phylum. One of the first questions that a scientist will ask is whether the animal has (or had at some point in its life) a backbone. If the answer is “yes,” the animal is a vertebrate. If the answer is “no,” the animal is an invertebrate.

Each Phylum is broken down into Classes, like mammals, birds, reptiles, fish, amphibians, insects, or gastropods (snails). Then each class can be broken down even further into orders, families, genus and species, getting more specific.



The scientific name is generally in Latin or Greek and is the living thing’s genus and species. People all over the world use the scientific names, no matter what language they speak. Most living organisms also have a common name that we use in our own language.



Some questions scientists ask:



- Does it have a backbone?
- What type of skin covering does it have?
- Does it have a skeleton? If so, is it inside or outside of the body?
- How many body parts does the animal have?
- Does it get oxygen from the air through lungs or from the water through gills?
- Are the babies born alive or do they hatch from eggs?
- Does the baby drink milk from its mother?
- Is it warm-blooded or cold-blooded?

Using what you know, and information and pictures in the book, see how many Animal Chart squares you can fill in for each animal.

Animal Chart

	Animals		
Appendages	legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
	horns/antlers		
Feet or hands: if they have; may have more than one	claws		
	web		
	toes		
	opposable thumbs/toes		
	hooves		
Movement: may do more than one	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
	climbs		
	hops		
Backbone	backbone/vertebrate		
	no backbone/invertebrate		
Skeleton	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Body covering	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Color/patterns	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Gets oxygen	lungs		
	gills		
Body temperature	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Babies	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Metamorphosis	complete		
	incomplete		
	none		
Teeth	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eater (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

	Animals		
Appendages	Legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
	horns/antlers		
Feet or hands: if they have, may have more than one	claws		
	web		
	toes		
	opposable thumbs/toes		
	hooves		
Movement: may have more than one	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
	climbs		
	hops		
Backbone	backbone/vertebrate		
	no backbone/invertebrate		
Skeleton	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Body covering	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Color/patterns	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Gets oxygen	lungs		
	gills		
Body Temperature	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Babies	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Metamorphosis?	complete		
	incomplete		
	none		
Teeth	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eaters (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

	Animals		
Appendages	Legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
Feet or hands: if they have, may have more than one	horns/antlers		
	claws		
	web		
	toes		
Movement: may have more than one	opposable thumbs/toes		
	hooves		
	walks/runs		
	crawls		
	flies		
Backbone	slithers		
	swims		
	climbs		
	hops		
Skeleton	backbone/vertebrate		
	no backbone/invertebrate		
	inside skeleton (endoskeleton)		
Body covering	outside skeleton (exoskeleton)		
	no skeleton		
	hair/fur/whiskers/quills		
Color/patterns	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
	hard outer covering		
Gets oxygen	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Body Temperature	lungs		
	gills		
Babies	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
	born alive		
Metamorphis?	hatch from eggs		
	born alive or hatch from eggs		
	complete		
Teeth	incomplete		
	none		
	sharp		
Food	flat		
	no teeth (bill/beak)		
	plant eaters (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

Vertebrate Classes

Objective: Compare structures (e.g., wings vs. fins vs. legs; gills vs. lungs; feathers vs. hair vs. scales) that serve similar functions for animals belonging to different vertebrate classes

Mammals:

hair, fur, whiskers, or quills at some point during their lives
backbone (vertebrate)
inside skeleton (endoskeleton)
lungs to breathe
most give birth to live young
produce milk to feed young
warm-blooded

Birds:

feathers
backbone (vertebrate)
inside skeleton (endoskeleton)
lungs to breathe
hatch from hard-shelled eggs
warm-blooded

Reptiles:

dry scales or plates
backbone (vertebrate)
inside skeleton (endoskeleton); most turtles also have a hard outer shell
lungs to breathe
most hatch from leathery eggs
cold-blooded

Warm-blooded animals make their own heat and have a constant body temperature

Cold-blooded animals' body temperature comes from their surroundings

Fish:

most have scales covered with a thin layer of slime
backbone (vertebrate)
inside skeleton (endoskeleton)
gills to breathe
babies are either born alive or hatch from jellylike eggs
cold-blooded

Amphibians:

soft, moist skin
backbone (vertebrate)
inside skeleton (endoskeleton)
most hatchlings (jellylike eggs) are called larvae or tadpoles and live in water, using gills to breathe
as they grow, they develop legs and lungs and move onto land
cold-blooded

Using the sorting cards, sort the animals into their class.

Common Invertebrates

Arthropods: Insects:

- hard outer covering
- no backbone (invertebrate)
- outside skeleton (exoskeleton)
- adults have 3 body parts: head, thorax & abdomen
- mouthparts adapted for chewing, biting, sucking and lapping
- breathe through tracheae
- compound eyes
- 3 pairs of legs
- usually 2 pairs of wings and 1 pair of antennae
- most hatch from eggs
- metamorphosis: none, incomplete, or complete
- cold-blooded

Mollusks

Bi-valves:

- have a two-part shell with a hinge to open/close
- no backbone (invertebrate)
- outside skeleton (exoskeleton)
- hatch from eggs
- cold-blooded
- marine and freshwater
- symmetry

Mollusks

Gastropods (Snails):

- most have hard shells
- no backbone (invertebrate)
- outside skeleton (exoskeleton)
- hatch from eggs
- cold-blooded

Arthropod

Arachnia (Spiders):

- no backbone
- one or two body segments
- pincers or fangs near mouth
- 4 pairs of legs
- no antennae

Arthropod

Crustaceans (Crabs):

- hard outer covering
- no backbone (invertebrate)
- outside skeleton (exoskeleton)
- mouthparts adapted for chewing
- 5 or more pairs of legs
- claws
- 2 pairs of antennae
- 2 compound eyes on stalks
- adults have 2 or 3 body segments
- hatch from eggs
- cold-blooded

Dichotomous (Yes/No) Key

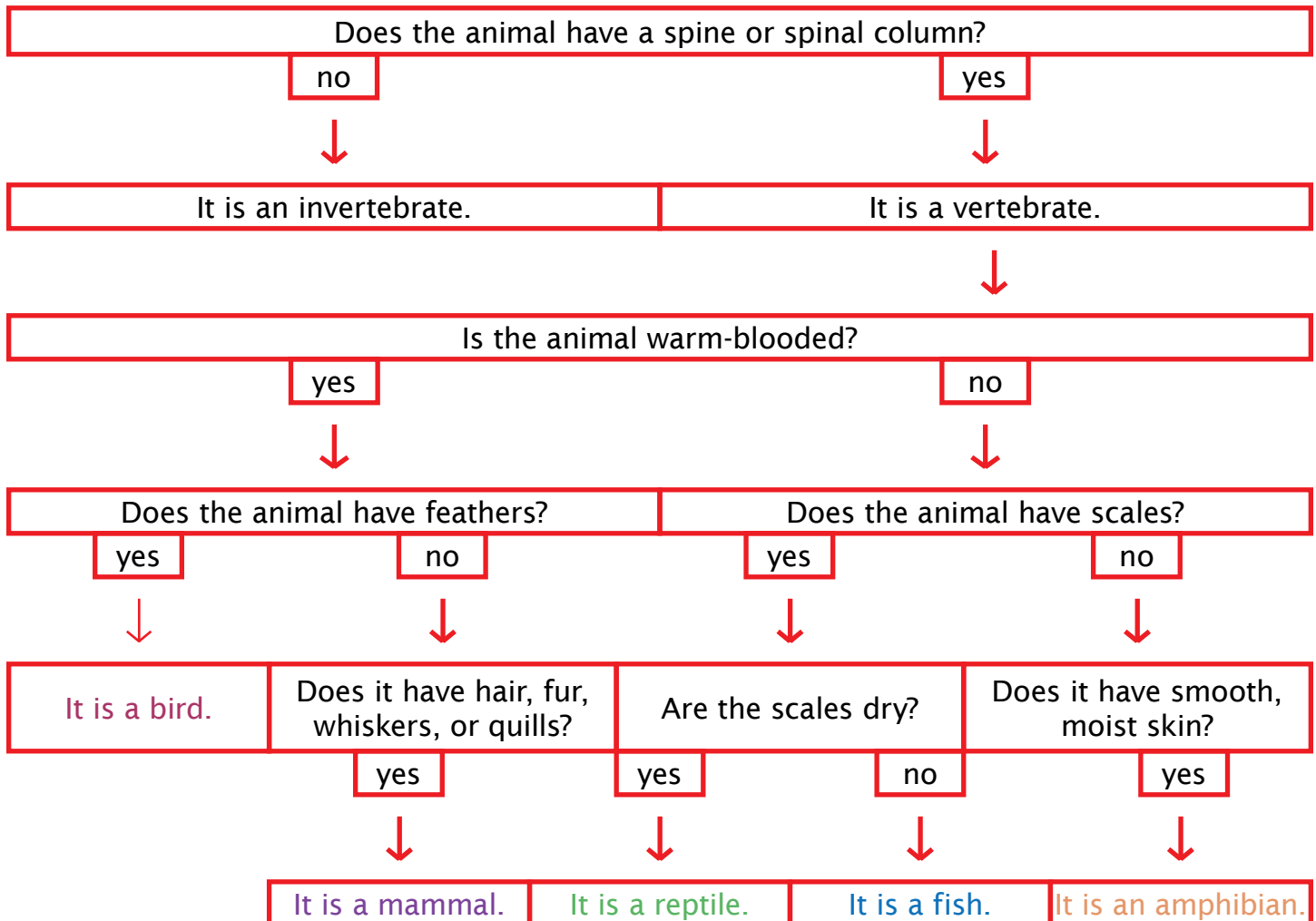
A dichotomous key helps to sort (classify) animals. These keys work by asking yes or no questions. Each answer leads to another yes or no question, until the animal class is identified. There are five classes of animals with backbones (vertebrates): fish, reptiles, amphibians, birds, and mammals. Use the information found in the book to match the animal to its classification.

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.

Using this dichotomous key, sort the following animals: butterfly; horn shark; ladybug; peeper; sea turtle; kingsnake; human.



Answers: butterfly -- invertebrate; horn shark -- fish; ladybug -- invertebrate; peeper -- amphibian; sea turtle -- reptile; kingsnake -- reptile; human -- mammal

Animal Sorting Cards

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.

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, he/she should say, "I 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 and 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.





Instinct or Learned?

Circle whether you think the activity is instinct (I) or learned (L) behavior:

1. I/L Caterpillars make a chrysalis so they can turn into a butterfly.
2. I/L Baby birds do not know how to fly until their mother teaches them.
3. I/L Horn sharks can swim as soon as they hatch.
4. I/L Chimpanzees use tools after watching other chimps use them.
5. I/L Ladybugs know how to fly when they emerge from the pupa stage.
6. I/L Sea turtles go directly to the ocean after they hatch.
7. I/L Wolves teach their babies how to hunt.
8. I/L Kingsnakes shed their skin when it gets too small.
9. I/L Scientists taught a gorilla named Koko to use sign language.
10. I/L A dog jumps on the sofa. His owner punishes him. He does not try to jump on the sofa again.
11. I/L A baby takes its first breath as soon as it is born.
12. I/L The child knows who the first president of the United States was.
13. I/L People blink without thinking about it.
14. I/L You yawn when you are tired.
15. I/L You know the words to your favorite song.



Science Journal (Vocabulary)

chrysalis

my definition

my drawing

larva

my definition

my drawing

hatchling

my definition

my drawing

shed

my definition

my drawing

True or False?

Objective: Critical thinking skills

Circle whether you think the statement is true or false:

1. T/F Caterpillars become butterflies by crawling underwater.
2. T/F Horn sharks are born without teeth.
3. T/F Ladybugs start out as larva after they hatch.
4. T/F Sea turtles lay their eggs in the water.
5. T/F Baby sea turtles have to get to the ocean on their own.
6. T/F Kingsnakes hatch from eggs.
7. T/F Snakes shed their skin when the weather is too hot.
8. T/F Riding a bike is an instinct.



Math Cards

Objective Core Mathematics Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (up to 10)

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

Use numbers, up to 10, to place objects in order, such as first, second, and third, and to name them

For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

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.

1



2



3



4



5



6



7



8

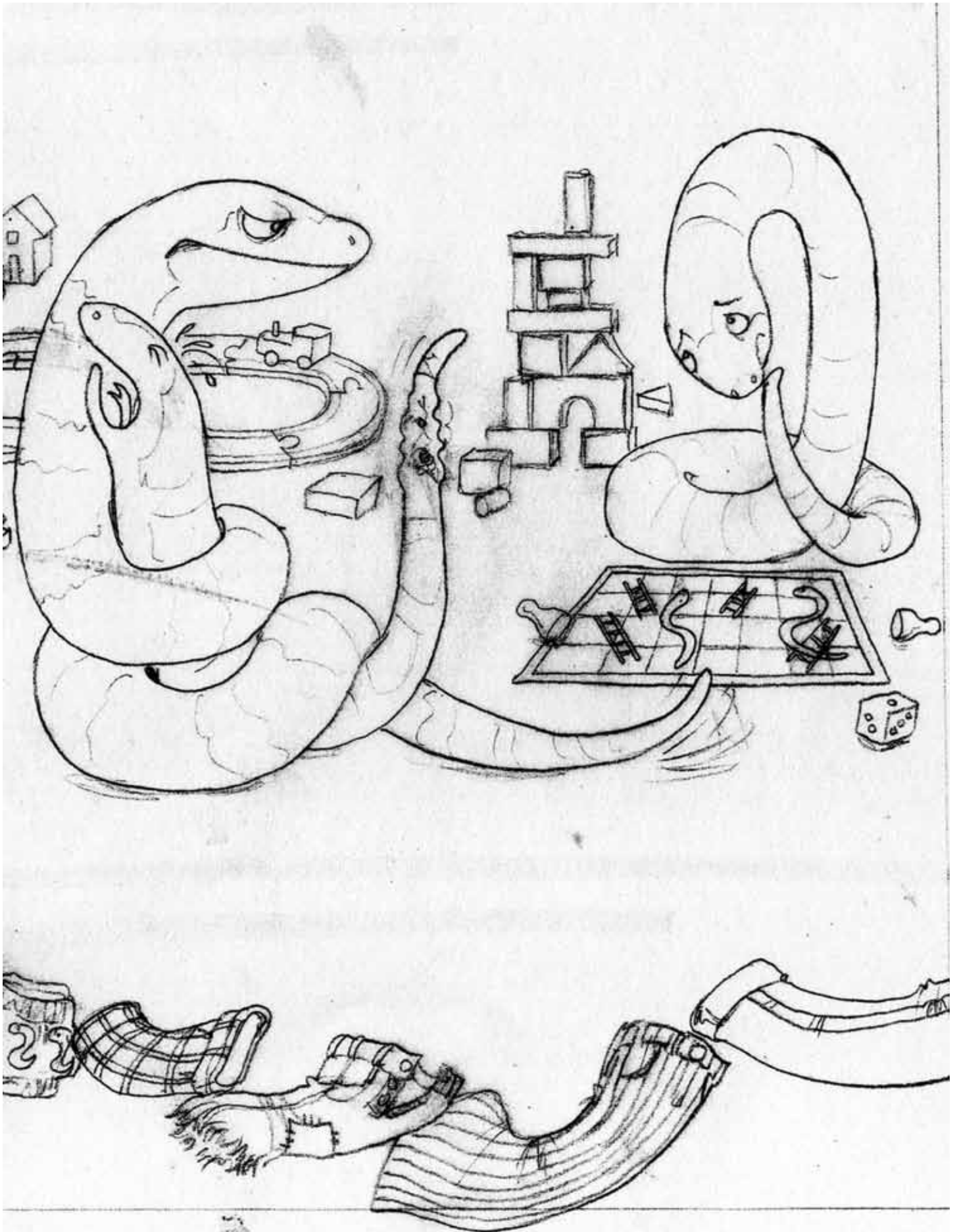


9



Coloring Pages







Answers

Silly Sentences:

1. No one reminds a caterpillar to eat her leaves or to make a chrysalis when she's old enough.
2. Mother butterflies lay their eggs on a tasty plant and fly away.
3. Nobody tells a horn shark to stay in the shallow end until he can swim well enough.
4. No one makes sure a ladybug larva wears a helmet while her shell changes color and hardens.
5. Mother ladybugs lay their eggs under a leaf and fly away.
6. When it's time to sing in the spring, peepers all know the same tinkling song, and they all sing along.
7. No one rocks sea turtle hatchlings to sleep, or sings a soft song, all night long.
8. New kingsnakes just know how to hunt and shed their skin as they grow, all on their own.

Instinct or Learned?:

1. I/L Caterpillars make a chrysalis so they can turn into a butterfly.
2. I/L Baby birds do not know how to fly until their mother teaches them.
3. I/L Horn sharks can swim as soon as they hatch.
4. I/L Chimpanzees use tools after watching other chimps use them.
5. I/L Ladybugs know how to fly when they emerge from the pupa stage.
6. I/L Sea turtles go directly to the ocean after they hatch.
7. I/L Wolves teach their babies how to hunt.
8. I/L Kingsnakes shed their skin when it gets too small.
9. I/L Scientists taught a gorilla named Koko to use sign language.
10. I/L A dog jumps on the sofa. His owner punishes him. He does not try to jump on the sofa again.
11. I/L A baby takes its first breath as soon as it is born.
12. I/L The child knows who the first president of the United States was.
13. I/L People blink without thinking about it.
14. I/L You yawn when you are tired.
15. I/L You know the words to your favorite song.

Word Search:

	A	B	C	D	E	F	G	H	I	J
1			l		b			h	o	p
2	s	e	a	t	u	r	t	l	e	
3			d		t					
4	p		y		t		b	a	b	y
5	e		b	s	e	s	w	i	m	
6	e		u	i	r	h			s	
7	p		g	n	f	e			h	
8	e			g	l	d			a	
9	r				y				r	
10		k	i	n	g	s	n	a	k	e

True or False?:

1. T/F Caterpillars become butterflies by crawling underwater.
Caterpillars become butterflies after they spend time in their chrysalis.
2. T/F Horn sharks are born without teeth.
Horn sharks are born with teeth, ready to catch their own food.
3. T/F Ladybugs start out as larva after they hatch.
4. T/F Sea turtles lay their eggs in the water.
Sea turtles lay their eggs in the sand.
5. T/F Baby sea turtles have to get to the ocean on their own.
6. T/F Kingsnakes hatch from eggs.
7. T/F Snakes shed their skin when the weather is too hot.
Snakes shed their skin when they grow too large for it.
8. T/F Riding a bike is an instinct.
Riding a bike is a learned behavior.

Appendix A—“What Children Know” Cards

<p>Question:</p> <p>My answer:</p> <p>This information is correct! This information is not correct; can you find the correct information?</p>	<p>Question:</p> <p>My answer:</p> <p>This information is correct! This information is not correct; can you find the correct information?</p>
<p>Question:</p> <p>My answer:</p> <p>This information is correct! This information is not correct; can you find the correct information?</p>	<p>Question:</p> <p>My answer:</p> <p>This information is correct! This information is not correct; can you find the correct information?</p>

Appendix B—Vocabulary Cards

chrysalis

shallow

larva

tadpole

hatchling

flipper

current

shed

aphid

instinct

metamorphosis

pupa