

TEACHING ACTIVITY GUIDE FOR SALAMANDER SEASON

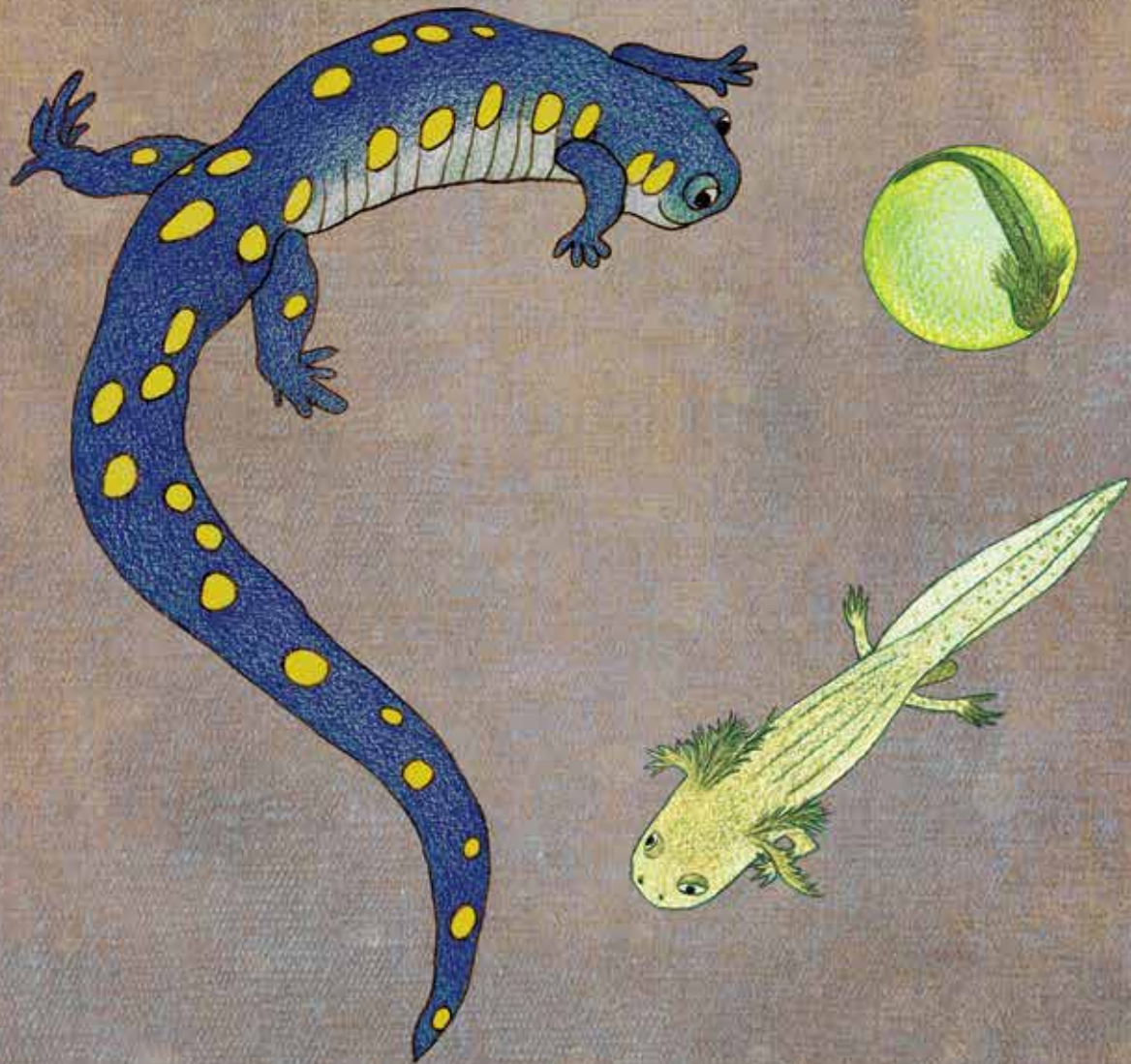
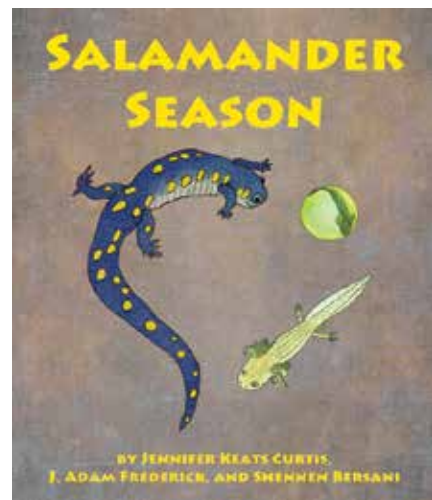


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by Jennifer Keats Curtis and J. Adam Frederick
illustrated by Shennen Bersani

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.

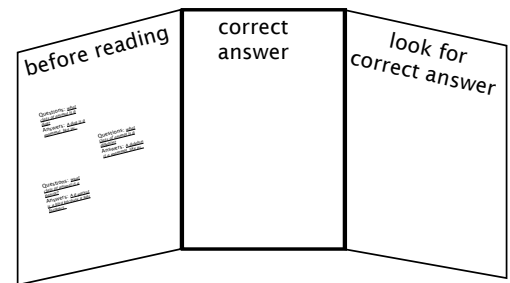
What Do Children Already Know?

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 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 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 is a salamander?
2. Where do salamanders come from?
3. What do salamanders do in winter?
4. Where can you find a vernal pool?
5. How do boy salamanders get girl salamanders' attention?
6. Are salamander eggs hard or soft?
7. Why would salamanders lay their eggs in a puddle and not in a river or stream with lots of fish?
8. Do salamanders have back legs when they hatch?
9. Are newly-hatched salamanders good swimmers?
10. Do adult salamanders breathe water or air?
11. What do salamanders eat?
12. Is a salamander a fish, bird, amphibians, reptile or mammal?

Comprehension Questions & Writing Prompts

Identify basic similarities in and differences between 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. The child in this story found animals nearby to watch and learn about. What animals live near you? Find an animal to watch for a few minutes. Write a few sentences to describe the animal's appearance. Then write what it is doing.
2. Was the animal you observed for #1 doing something to meet one of its basic needs (food, water, air, shelter)? Write about how the animal meets its basic needs.
3. What is a vernal pool and why is it important for salamanders?
4. How are mammals and amphibians different?
5. How are reptiles and amphibians different?
6. What is an environmental biologist?
7. Look at *only* the story, not the "For Creative Minds" section. Write down what you learn about salamanders from the story.
8. Look at only the "For Creative Minds" section, not the story. Write down what you learn about salamanders.
9. Compare the lists you made for questions #7 and #8.
10. Tell about a time you have seen an animal in the wild.
11. Where did the child and her father first see the salamanders?
12. Why did they take two salamanders home with them?
13. Tell how you would describe salamanders and their life cycle to someone who has never seen a salamander before.

Spotted Salamander Symbiosis: Content Primer

Co-author J. Adam Frederick is the Assistant Director of Education at Maryland Sea Grant and works in the University of Maryland Center for Environmental Sciences Institute of Marine and Environmental Technology in Baltimore, MD, and is a former high school biology teacher. As part of his job, he studies salamanders and other aquatic organisms and develops practical applications for classroom teachers.

He has recently written a content primer for educators to use with their students to learn about spotted salamanders. While this particular species of salamanders are found on the east coast, salamanders may be found nationwide and this is a good place to start learning.

Here's the link to Maryland Sea Grant's Spotted Salamander resources:

<https://www.mdsg.umd.edu/topics/k-12-lesson-plans/symbiosis-backbone>

Salamander walks (sometimes called nights) take place all over. Check with local nature centers, local parks, or Audubon groups to find one near you.

Thanks to MD Sea Grant for the use of this photo:



Language Arts & Science: Basic Needs

Objective: Describe the basic needs of living things and how they are met.

Plants need water, oxygen, food, light and space to grow and reproduce; animals need water, oxygen, food, and shelter/space to grow and reproduce.

Re-read the story and write down any words that relate to how the plants or animal(s) meet their basic needs.

Plant/ Animal	water	oxygen	food	light	space

If not mentioned in the text, are there any indications in the illustrations of how these needs are met? Can you describe, draw, or write an explanation of how the needs are met?

Fill in the Conjunction

Objective Core Language Arts: Use frequently occurring conjunctions.

Use one of the following words to fill in the sentence so that it makes sense.

and

but

or

so

because

1. I hear the loud *quack, quack, quack* of wood frogs; *whirr* of the upland chorus frog; ____ *peep, peep, peep* of spring peepers.
2. They quickly twist their chunky bodies ____ turn their narrow heads.
3. It is a perfectly safe place to lay eggs _____ there are no fish.
4. Dad says that it's algae ____ it helps the little salamanders breathe oxygen.
5. They have no hind legs yet ____ they are terrible swimmers.
6. They don't have to worry about newts ____ baby dragonflies trying to eat them!
7. Together, dad ____ I climb the hill toward home.

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.

Cross-Curricular: Silly Sentences

1. They are _____ just emerging from hibernation.
noun
2. Soggy sticks _____.
verb
3. They look like wiggly, little _____.
noun
4. Some even _____ noses.
verb
5. We head back to the _____ pool.
adjective
6. Each _____ egg container, attached to sticks and reeds, holds hundreds of _____.
adjective
noun
7. The babies are _____ in the egg cases.
verb
8. Have the salamanders _____?
verb
9. It looks like _____ _____ with specks of pistachio.
adjective
noun
10. They have no _____ _____ yet so they are _____ swimmers.
adjective
noun
adjective
11. Since Dad is a _____, he takes two salamanders back to his lab to study.
noun
12. The baby salamanders are _____.
adjective
13. Now they look more like _____ than _____.
noun
noun
14. They start to use their _____ for the first time.
noun
15. They quickly _____ up the slippery bank toward the _____ as if they know exactly where to go.
verb
noun

Language Arts: Sequence Sentence Strips

Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.

Objective Core Language Arts:

Use temporal words and phrases to signal event order.

Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

March 21

Errr, screech the brakes.

There! In front of the car, little blue animals wriggle across the road. The creatures are almost invisible, except for bright yellow spots on their backs that glow like my flashlight.

Dozens of shiny salamanders are marching over rotting logs. They look like wiggly, little soldiers.

The boy salamanders try to get the girl salamanders' attention.

March 28

We head back to the vernal pool. It is time for the salamanders to lay their eggs.

They lay their eggs in jiggly, jellybean-shaped masses. Each gooey egg container, attached to sticks and reeds, holds hundreds of eggs.



April 26

Dad and I wade back into what's left of the evaporating pool. The babies are growing in the egg cases.

May 21

Oh! Baby salamanders are hatching. I see them! They burst out of the egg sac and wriggle around the lid. They have no hind legs yet so they are terrible swimmers.

May 22

The baby salamanders are hungry. Dad gives them ghost midges and fairy shrimp—the same tiny animals they would eat in their pool.

June 5

As the spotted salamanders grow, they change color and darken. First they turn grey, then green like an olive. Their whispery gills and short tail fins disappear. Hind legs appear. Now they look more like salamanders than tadpoles.

July 5

The little salamanders are now a navy blue color. They are juveniles and are really growing. They will need to breathe air to live on land. They start to use their lungs for the first time.

August 1

On this warm, rainy evening, Dad says it's time to release the salamanders. He puts them in a plastic carrying case and we drive back to the woods.

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

BIOLOGY

EGG

HATCH

LUNGS

SALAMANDER

TADPOLE

VERNAL POOL

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?

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.

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

	Animal:	Human	Salamander
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 do more than one	opposable thumbs/toes		
	hooves		
	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
Backbone	climbs		
	hops		
Skeleton	backbone/vertebrate		
	no backbone/invertebrate		
Body covering	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Color/patterns	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Gets oxygen	hard outer covering		
	stripes or spots		
	mostly one color		
	skin color changes		
Body temperature	bright, vivid colors		
	lungs		
Babies	gills		
	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Metamorphosis	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Teeth	complete		
	incomplete		
	none		
Food	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eater (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

Compare/Contrast: Animal and Human Senses

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

Students know that senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment.

Identify the five senses and their related body parts: sight - eyes, hearing - ears, smell - nose, taste - tongue, touch - skin,

Identify the structures of living organisms and explain their function.

Compare and contrast cat and human body parts used for senses.

to smell	to feel
to hear	to see

Habitats

Objective: Identify and describe physical characteristics of a place (physical features, climate, vegetation and animal life)

Identify natural characteristics of places: landforms, bodies of water, natural resources, and weather).

Geography includes the study of Earth's physical features including climate and the distribution of plant, animal, and human life.

Habitats are more than just the plants and animals that live there. They are communities of plants, animals and non-living things that interact in certain locations. There are many different types of habitats all over the world.

Salamanders live in different habitats throughout their lives. Can you describe the different habitats a salamander might live in?

What are some of the non-living things in each habitat?

- Water: freshwater or saltwater? deep water or shallow water? what kind of precipitation? How often and how much?
- Elevation above sea level
- Climate (temperate, tropical, polar)
- Rocks: how big, how many
- Soil

What are some ways that plants or animals interact with each other or non-living things?

What are some living and non-living things you see when you go outside?

What are some ways that a habitat might change?

Plants and animals (living things) live in habitats that meet all of their basic needs.

- Animals need food, water, oxygen to breathe, and a safe space for shelter and to give birth to their young.
- Plants need sunlight and heat (temperature), water, soil to grow, and a way for seeds to move (disperse).

Living things have body parts and behaviors (adaptations) that help them live in their habitats and meet their basic needs.

- Animals need oxygen to breathe. Animals get their oxygen from either the air or the water. What body parts do they use to get the oxygen? What behaviors do they have? (Mammals or reptiles that live in water must come to surface of the water to get the oxygen from the air).
- Living things have body parts or behaviors to protect themselves from predators or things that might hurt them.
- Most animals move from one place to another. Special body parts help them move in their habitat but not easily in other habitats. For example, which body parts help animals move in the air, land, or water?
- All living things need energy to grow and have body parts to help them get food.

Adaptations

Objective: Identify adaptations that help plants and animals survive and grow in their environment

Identify external parts of plants and animals

Observe and compare the structures and behaviors of different kinds of plants and animals

Adaptations help animals to live in their habitat: to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes. Here are a few different types of adaptations.

Physical Adaptations

Use the illustrations in the book to see how many physical adaptations you can see for each animal.

body parts

teeth—depends on type of food eaten
feet, flippers, fins—ability to move
placement of eyes
gills, lungs, or other—how does the animal get oxygen
ears—or how the animal hears/senses

body coverings

hair or fur
feathers
scales
moist skin

camouflage and protection

color of skin or pattern to blend into background
body structure resembles another organism to fool predators
poisonous or stinky smells

Behavioral Adaptations

instinct: behaviors or traits that the animals are born with

learned behavior: traits that animals learn to improve their chances of survival or to make their life easier

social groups versus solitary living

communication with other animals

defense

hiding in an area that provides camouflage

reaction to cycles (day/night, seasons, tides, etc.)

migration: the seasonal movement of animals from one location to another

hibernation: a long, deep sleep in which the animal's breathing and heartbeat are slower than usual

Science Journal (Vocabulary)

Tadpole

my definition

my drawing

Hatch

my definition

my drawing

Lungs

my definition

my drawing

Vernal Pool

my definition

my drawing

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

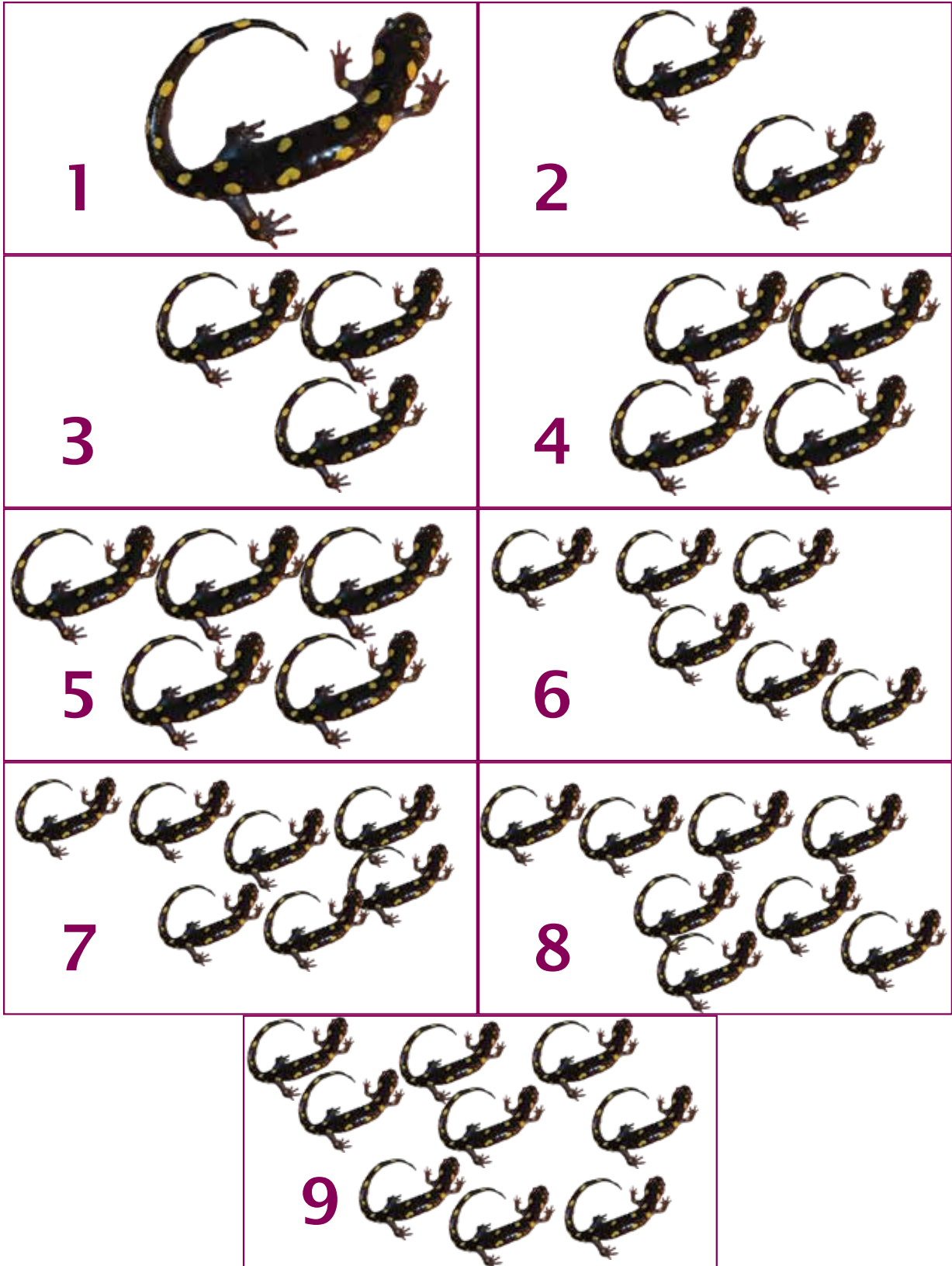
(Make four copies of the math cards to play these games):

Tens Make Friends Memory Game is a combination of a memory and adding game.

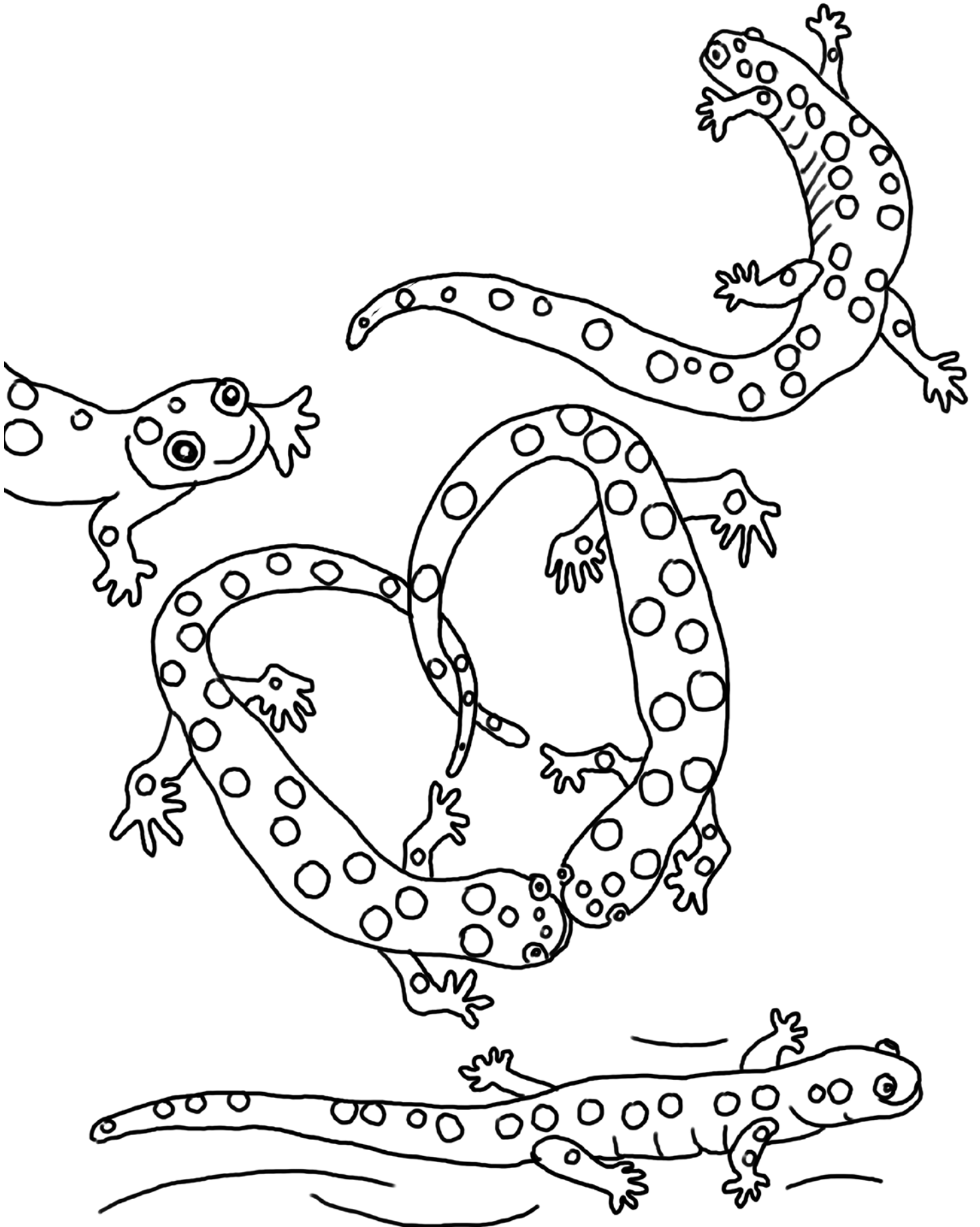
- Play like the memory game, above.
- If the animal numbers add up to 10, the child keeps the pair and takes another turn.
- If they do not add up to ten, the player should turn the cards back over and it is another player's turn.

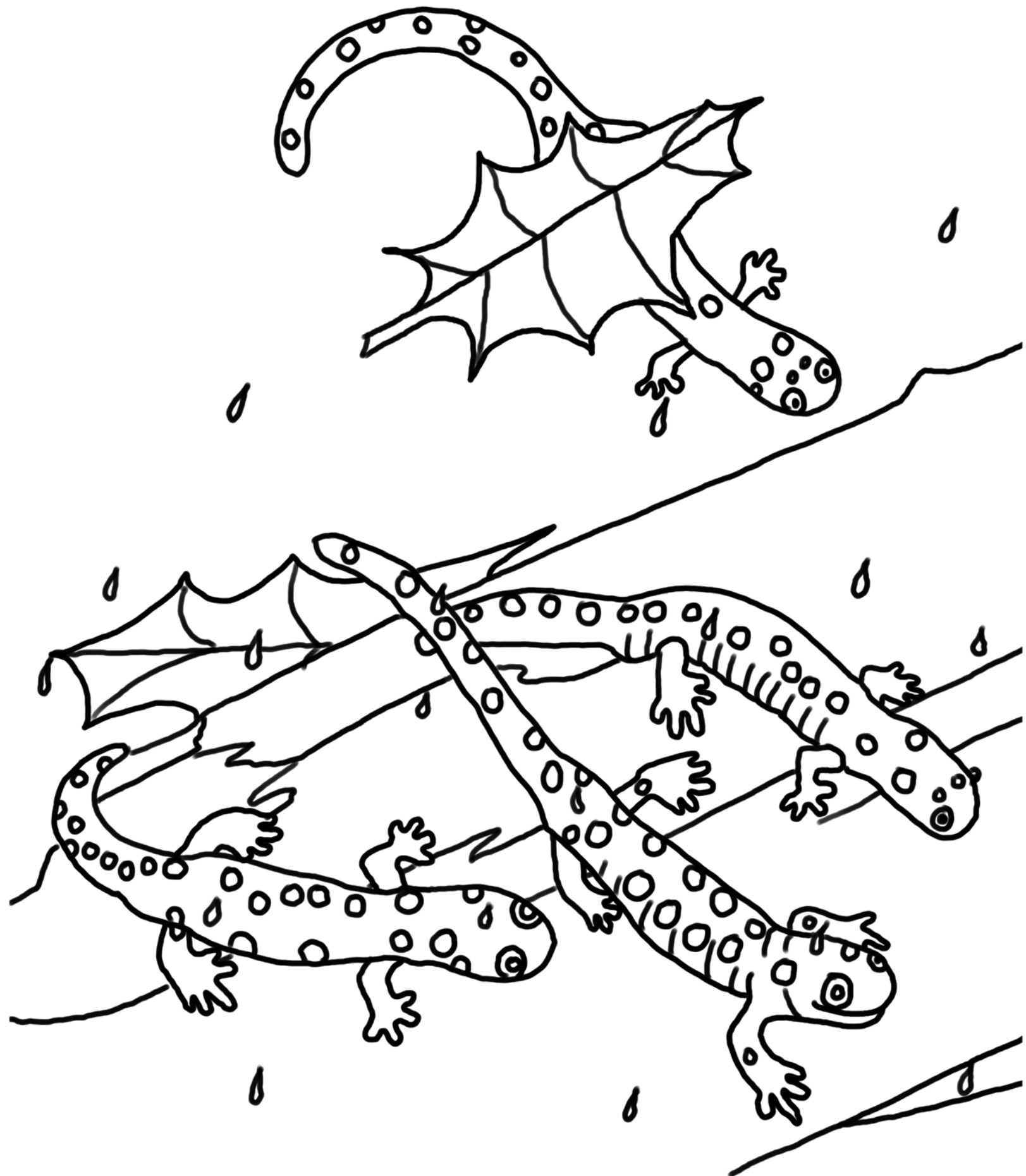
Go Fish for Fact Families is a twist on "Go Fish."

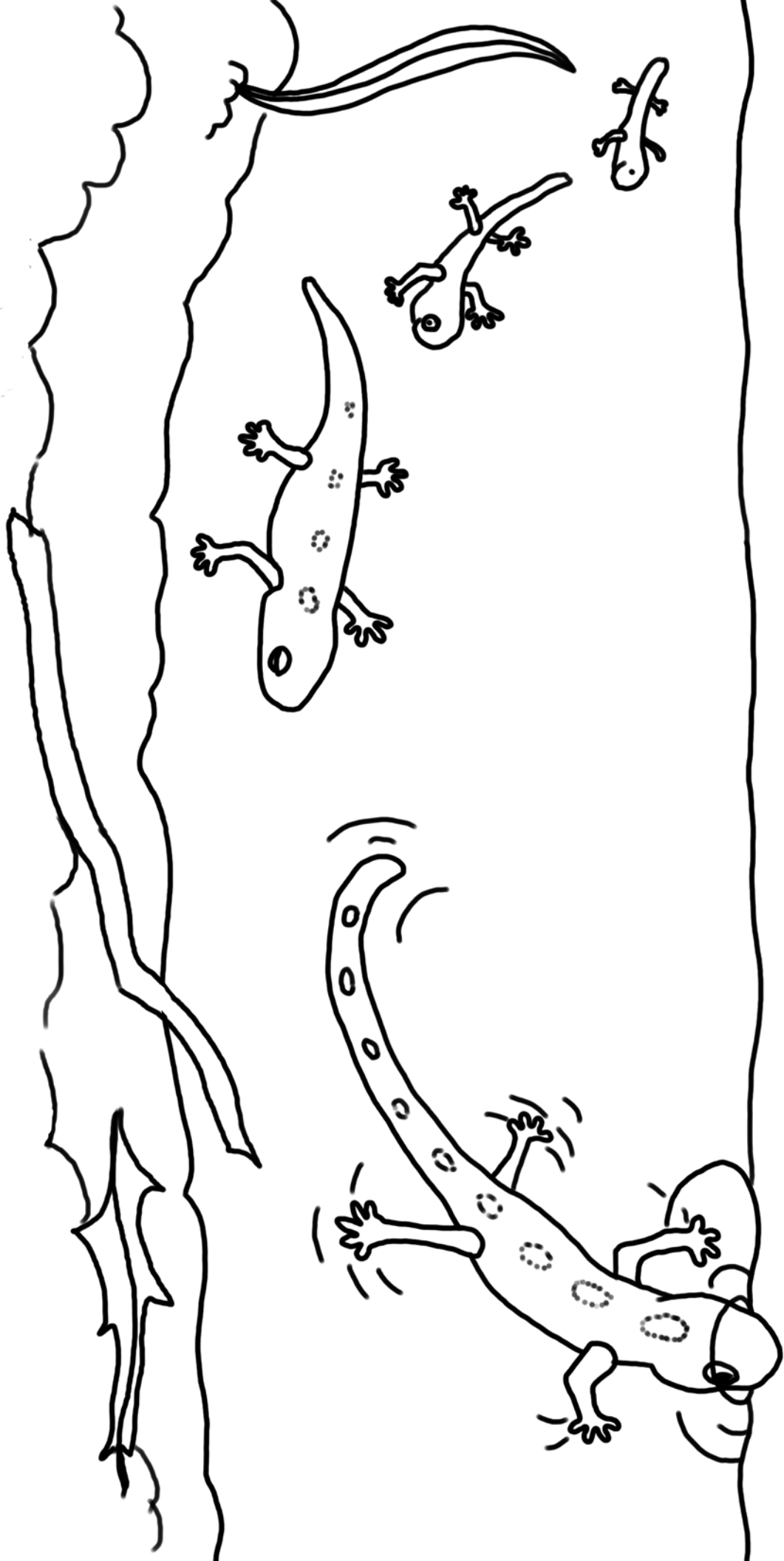
- Shuffle cards and deal five cards to each player. Put the remaining cards face down in a draw pile.
- If the player has three cards that make a fact family, he/she places them on the table and recites the four facts related to the family. For example, if someone has a 2, 3, and 5, the facts are: $2 + 3 = 5$, $3 + 2 = 5$, $5 - 2 = 3$, $5 - 3 = 2$.
- 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.

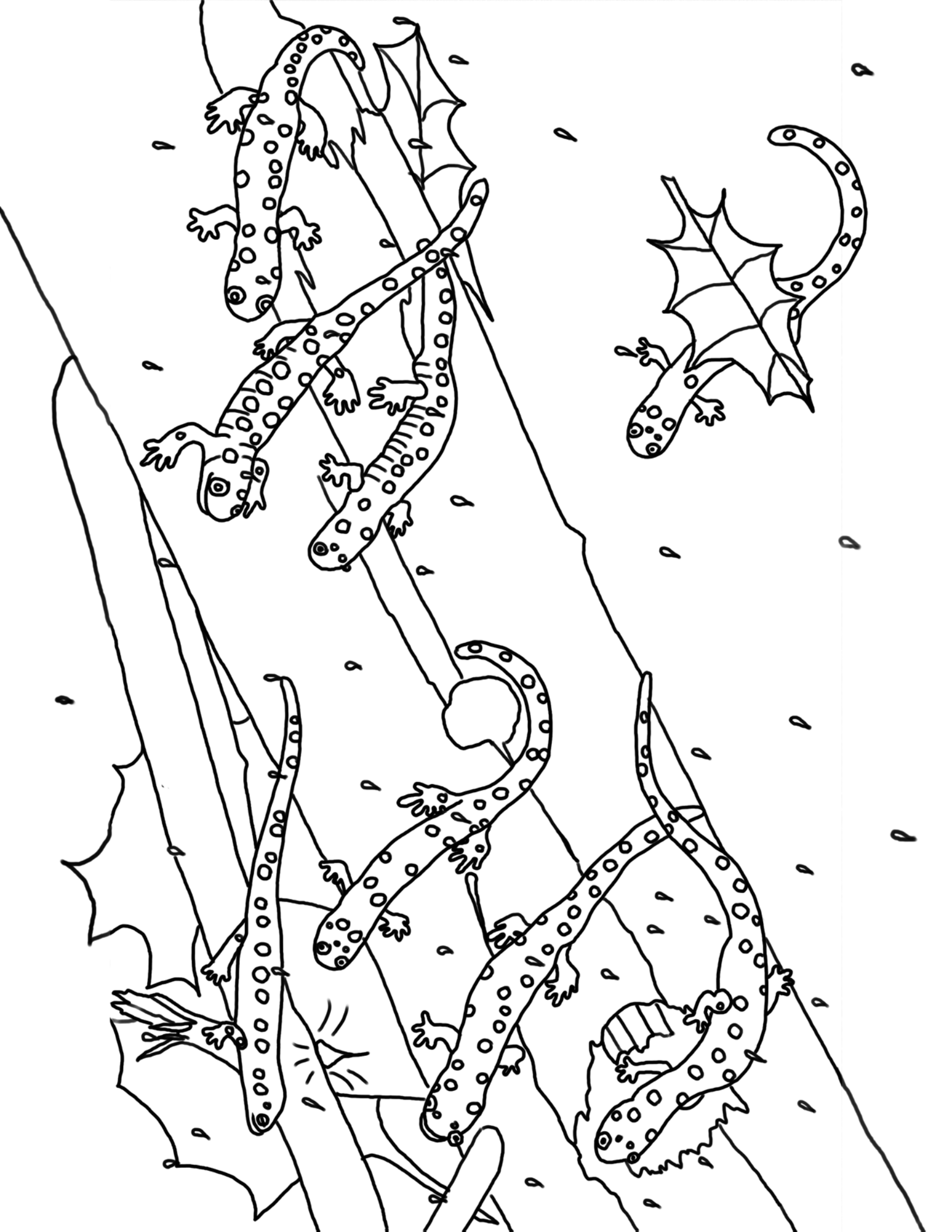


Coloring Pages









Answers

Fill in the Conjunction

1. and
2. and
3. because
4. and
5. so
6. or
7. and

Cross-Curricular: Silly Sentences

1. They are spotted salamanders just emerging from hibernation.
2. Soggy sticks snap.
3. They look like wiggly, little soldiers.
4. Some even rub noses.
5. We head back to the vernal pool.
6. Each gooey egg container, attached to sticks and reeds, holds hundreds of eggs.
7. The babies are growing in the egg cases.
8. Have the salamanders hatched?
9. It looks like white tapioca with specks of pistachio.
10. They have no hind legs yet so they are terrible swimmers.
11. Since Dad is a scientist, he takes two salamanders back to his lab to study.
12. The baby salamanders are hungry.
13. Now they look more like salamanders than tadpoles.
14. They start to use their lungs for the first time.
15. They quickly wriggle up the slippery bank toward the forest as if they know exactly where to go.

Word Search

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

BIOLOGY—1D

EGG—5I

HATCH—4D

LUNGS—3G

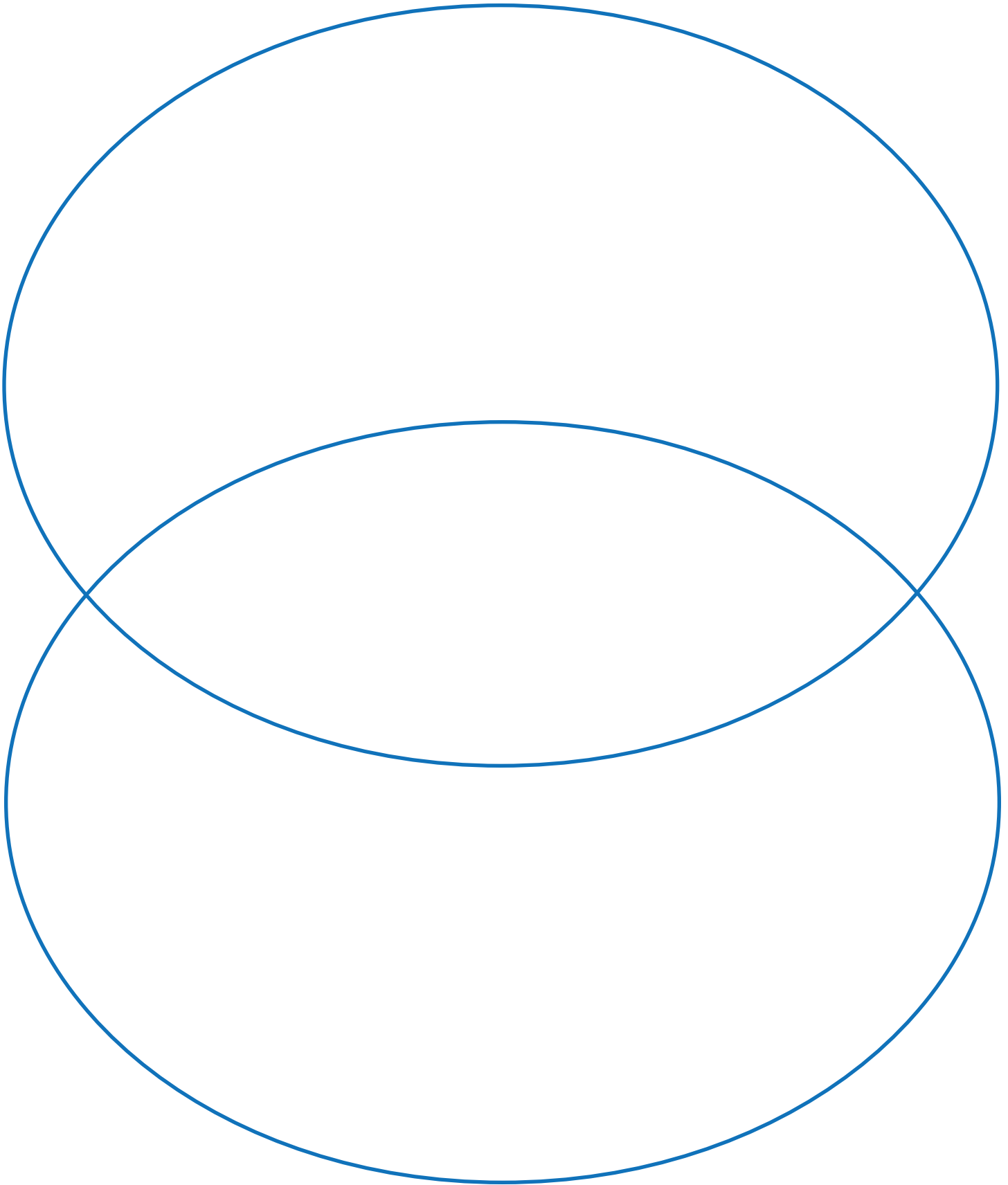
SALAMANDER—5A

TADPOLE—3B

VERNAL POOL—9A

Appendix B—Venn Diagram

Compare and contrast two stages of the salamander lifecycle



Appendix C—Vocabulary Cards
