

Science @Home

SWAMPS



Mucky. Oozy. Slimy. Spooky. Swamp things ages 8-11 are invited to explore this realm where cypress trees sway and ancient reptiles roam.

With their eerie atmosphere and extra-large inhabitants, the swamps, bogs, marshes, and wetlands of the Southeastern United States capture the imagination like few other ecosystems can. Get acquainted with the incredible biodiversity of swamps through engaging videos, creature crafts, and more.

Please note: While Science @ Home activities are designed to be conducted by kids, some little ones might need adult help with reading instructions and preparing crafts.

Day 1: Step into the Swamp

30-45 minutes

- » Swamp Talk (video)
- » Swamp Life Word Search (activity)
- » Swamp Superstars (coloring)
- » Cool Claude Visor (craft)

Day 2: Alligator Obsession

45-60 minutes

- » Claude: The True Story of a White Alligator (video)
- » Draw Claude (activity/video)
- » Caring for Claude (video)
- » Sensitive Claude (video)
- » Alligator Accordion (craft) (en español)

Day 3: Turtle Power

45-60 minutes

- » All About Alligator Snapping Turtles (video)
- » Skulls Head-to-Head (video)
- » Skull Sketch (specimen)
- » Snapping Turtle Chomper (craft) (en español)

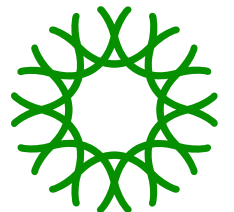
Day 4: Caring for the Swamp

30-60 minutes

- » Bay Area Wetlands (video)
- » Swamp in a Bottle (experiment)
- » Swamp in a Bottle (video)
- » Cypress Swamp Scene (coloring) (en español)

Extension Activities

- » Alligator Bodyguards (resource)
- » Saving American Alligators (video)





Swamp Life Word Search

Swamp habitats provide a home for many different kinds of plants and animals. A few of them are listed below and hidden in the word search. Looking forward, backward, down, up, and diagonally, how many hidden words can you find?

ALLIGATOR

BALD EAGLE

BEAVER

BROWN WATER SNAKE

BULLFROG

CYPRESS

HERON

MINK

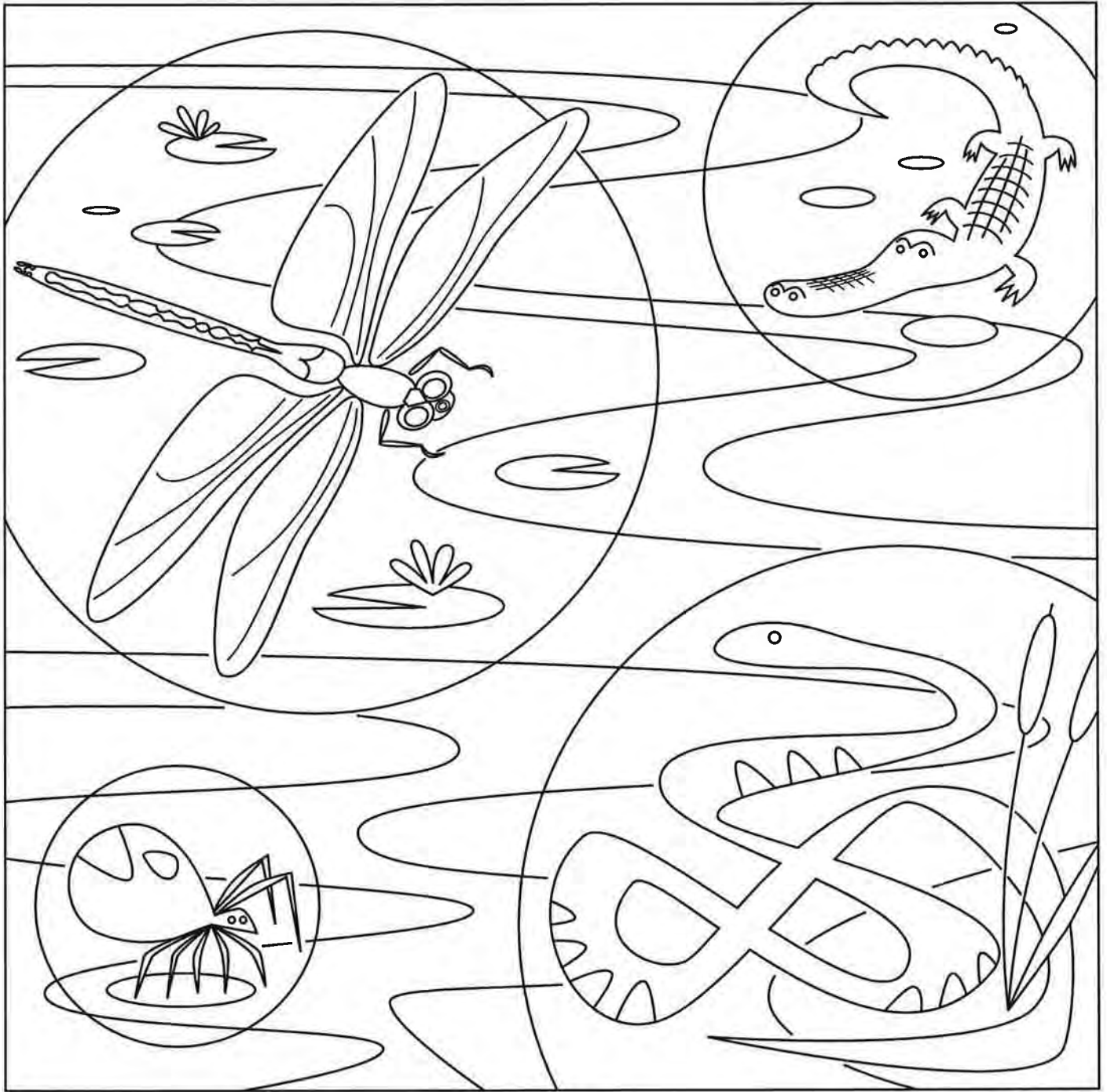
OSPREY

RACCOON

RIVER OTTER

SNAPPING TURTLE

B R O W N W A T E R S N A K E
J E W C A I E Y G P N V C C R
O E W Z N W L T E R A S K Y E
E D J O N F G H I R P R V P V
S D R W O A A V V D P S I R A
O E Z R X D E R Z N I S G E E
H L X S O R D M C J N P O S B
M I N K O T L U E D G F G S Q
S A V T U H A F C G T A O W F
R T T A N J B G B K U P A N V
A E Q G E S R Y I Y R U L Y L
R T N O O C C A R L T F N R E
L I B U L L F R O G L H R U A
I H D Q W U H G G E E A P C O
C W R E K C E P D O O W P T U



Swamp by Michael Bartalos for the California Academy of Sciences





Cool Claude Visor

Claude is an albino American alligator who lives at the California Academy of Sciences. As an animal with albinism, he does not produce skin pigments, which is why his skin looks white and his eyes look pink. Transform Claude's unique appearance into a fashion statement of your own!

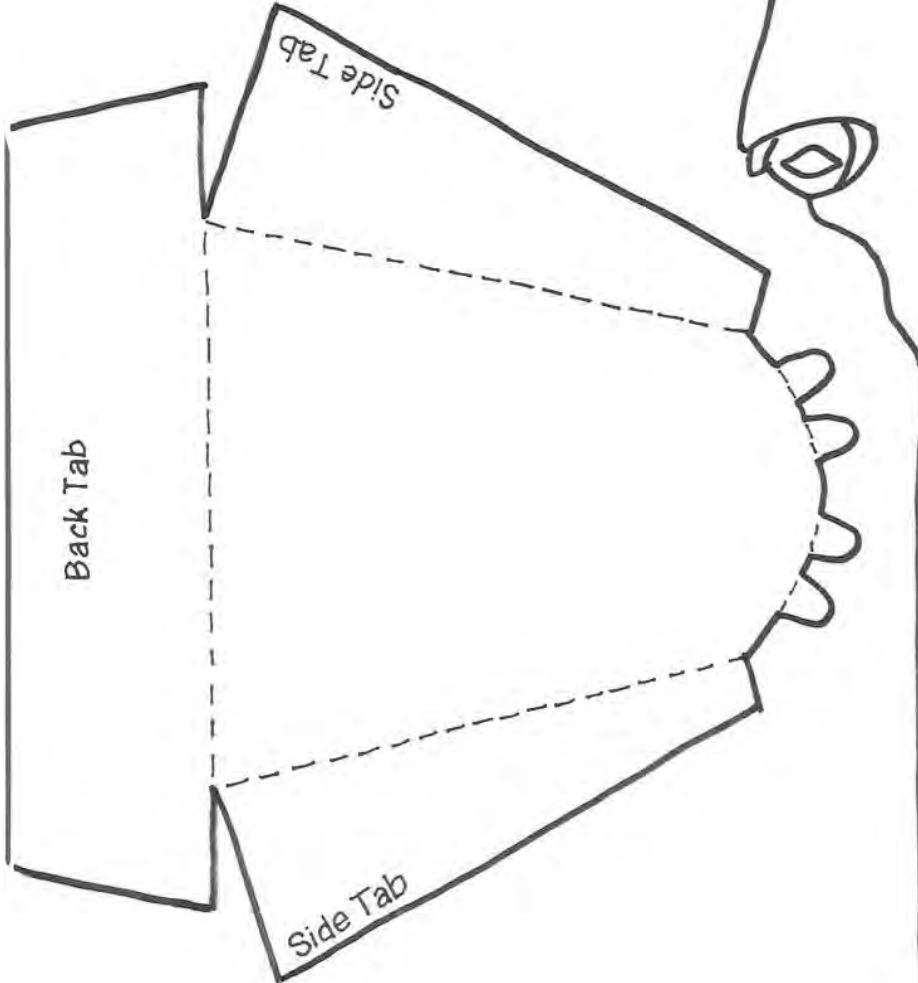
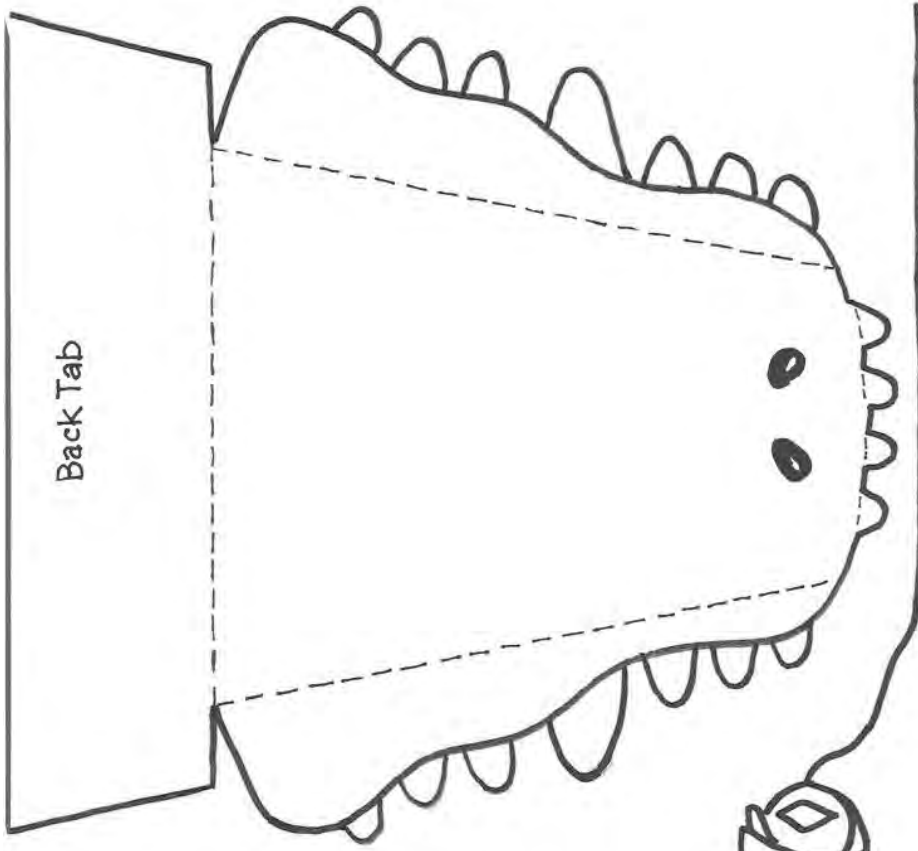
Materials

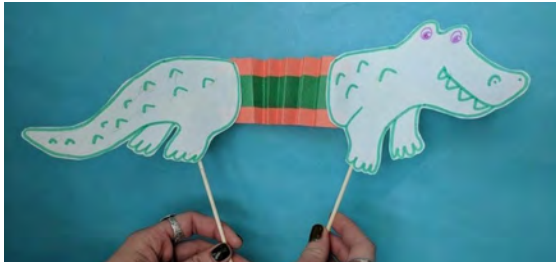
Claude visor printout (page 2)
Scissors
Strip of paper, about 2" wide x 8½" long
Pink or red crayon, marker, or colored pencil
Tape or glue

Directions

1. **Print** the Claude visor pattern on the second page.
2. **Cut** out the three-piece pattern and the strip of paper.
3. **Color** the eyes pink or red.
4. **Fold** along the dotted lines to form the top and bottom jaws.
5. **Overlap** the back tabs to connect the top and bottom jaws.
6. **Center** the jaws under the eyes and tape or glue them to the headband.
7. **Tape or glue** the side tabs together to close the mouth.
8. **Finish** the visor by taping or gluing the strip of paper to the ends of the headband, forming one large loop that you can place on your head. Adjust the size of the loop to fit your head.







Alligator Accordion

Make your own miniature alligator with an accordion-like middle section. As an animal with albinism, the Academy's alligator, Claude, does not have the dark pigments in his skin that would normally allow him to camouflage in swampy habitats.

Materials

Alligator printout (page 2)
Crayons, markers, or colored pencils
Scissors
Tape and/or glue
Long strip of paper, about 6" long and 1" wide
Optional: Two craft sticks (popsicle sticks, chopsticks, or straws)



Directions

1. **Print** out the alligator head and tail on the second page.
2. **Color** the alligator pieces. Alligators can be grey, brown, olive, or nearly black. If you'd like to make an albino alligator, like Claude, then leave it white and color the eyes pink or red.
3. **Cut** out both alligator pieces.
4. **Fold** a strip of paper about every half inch, alternating between folding it backward and forward. By folding it back and forth along the length, you will make an accordion shape.
5. **Tape or glue** each end of the accordion to connect the two alligator pieces.
6. **Optional:** Tape or glue a craft stick to each end of the alligator to turn it into a puppet. You can also use it as a shadow puppet by holding it in front of a flashlight in a dark room.



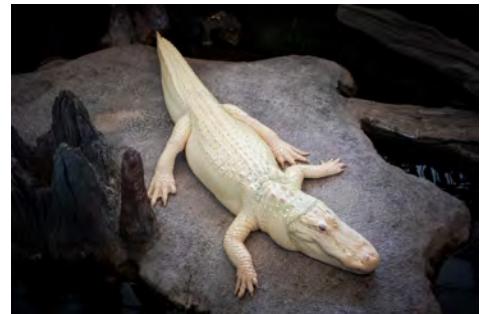


El Acordeón de Lagarto

Haz tu propio lagartito con el centro del cuerpo como un acordeón. Como un animal con albinismo, el lagarto de La Academia, Claude, no tiene el pigmento oscuro en su piel que podría esconderle en el pantano.

Materiales

El lagarto imprimido (página 2)
Crayones, marcadores, o lápices de colores
Tijeras
Cinta adhesiva y/o pegamento
Tiras largas de papel, aproximadamente 6 pulgadas de largo y 1 pulgada de ancho
Opcional: Dos palos de oficio (palos de paletas, palillos, o pajas)



Instrucciones

1. Imprime la cabeza y cola del lagarto en la segunda página.
2. Colorea las piezas del lagarto. Los lagartos pueden ser gris, café, verde olivo, o casi negro. Si quieres crear un lagarto albino, como Claude, entonces déjalas blanco y colorea los ojos con rosado o rojo.
3. Corta las dos piezas de lagarto.
4. Dobra una tira de papel cada media pulgada, cambiando entre cada doblada de ida y vuelta. Al doblarlo hacia adelante y atrás a lo largo se hace la forma de un acordeón.
5. Pega cada extremo del acordeón para conectar las dos piezas del lagarto.
6. Opcional: Pega un palo de oficio en cada extremo del lagarto para convertirlo en un marioneta. Puede usarla para crear imágenes de sombra a través de poniéndola enfrente de una linterna en un cuarto oscuro.





Snapping Turtle Chomper

Alligator snapping turtles have a specialized tongue that looks like a worm. When the turtle opens its mouth, its tongue tempts fish to take a closer look, and then...SNAP! Snack time.

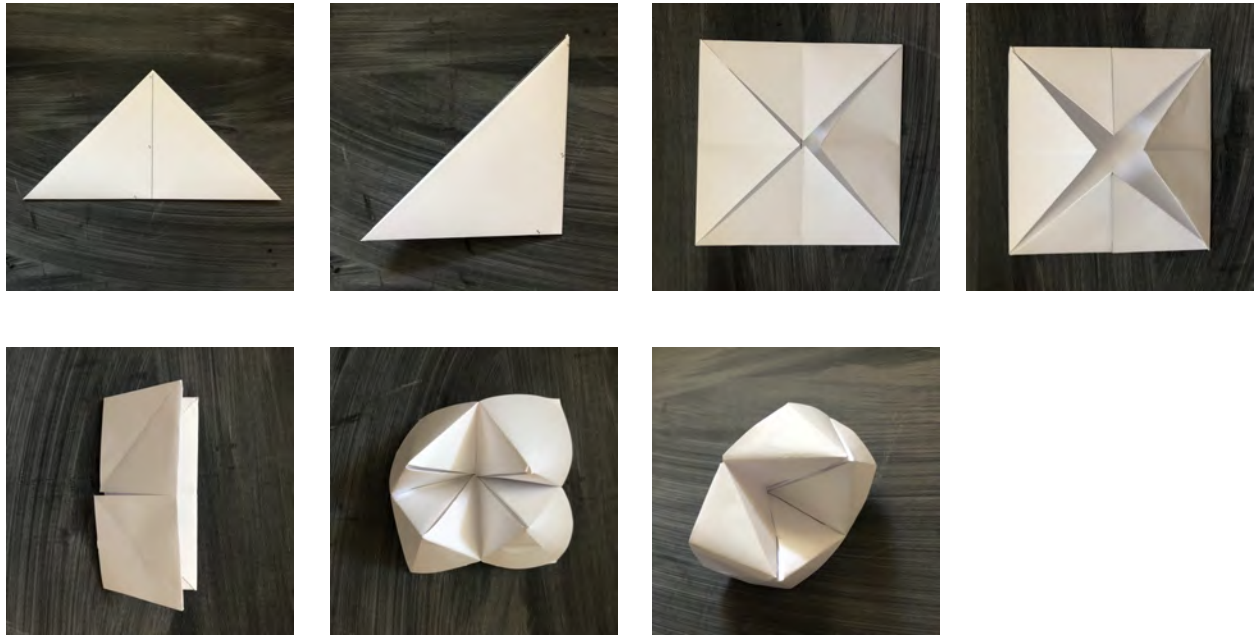
Make your own alligator snapping turtle chomper by following the directions below and start snapping some fish!

Materials

Print out templates (pages 3 and 4)
Crayons or colored pencils
Scissors
Tape

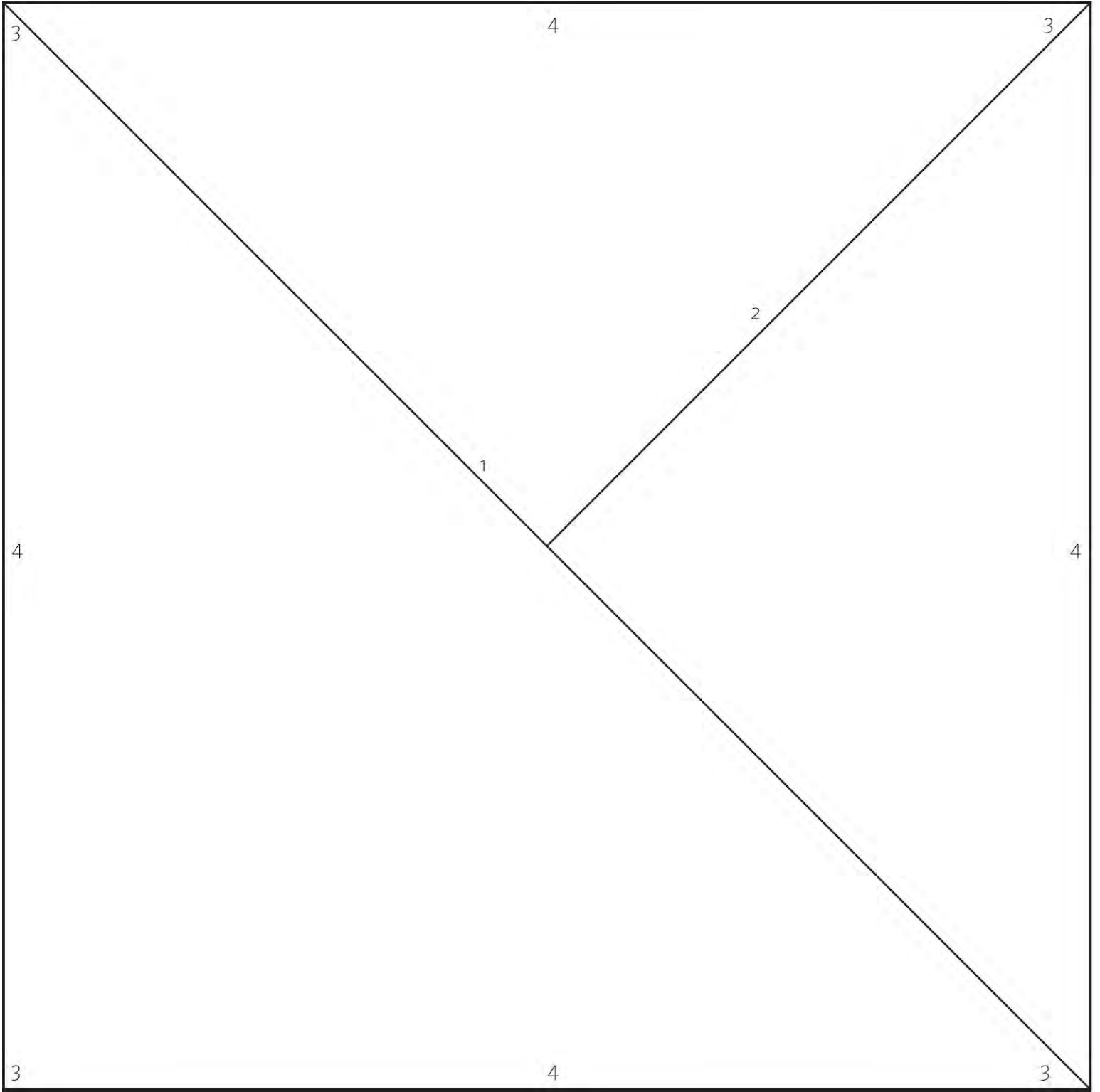
Directions

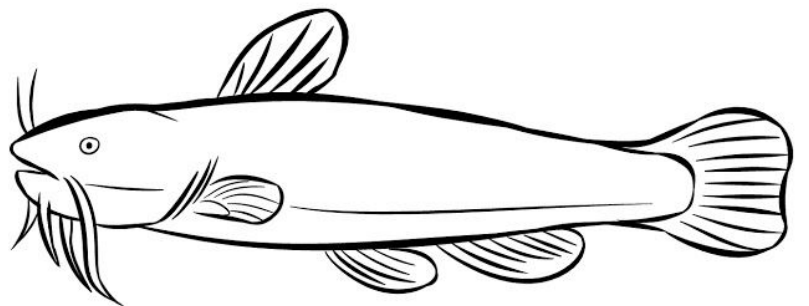
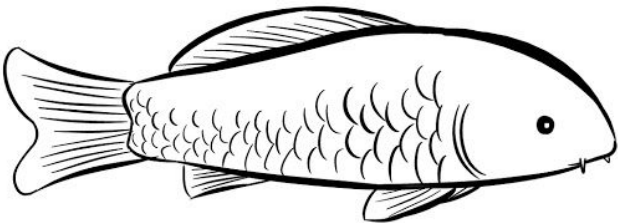
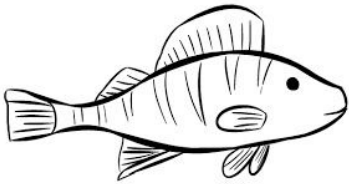
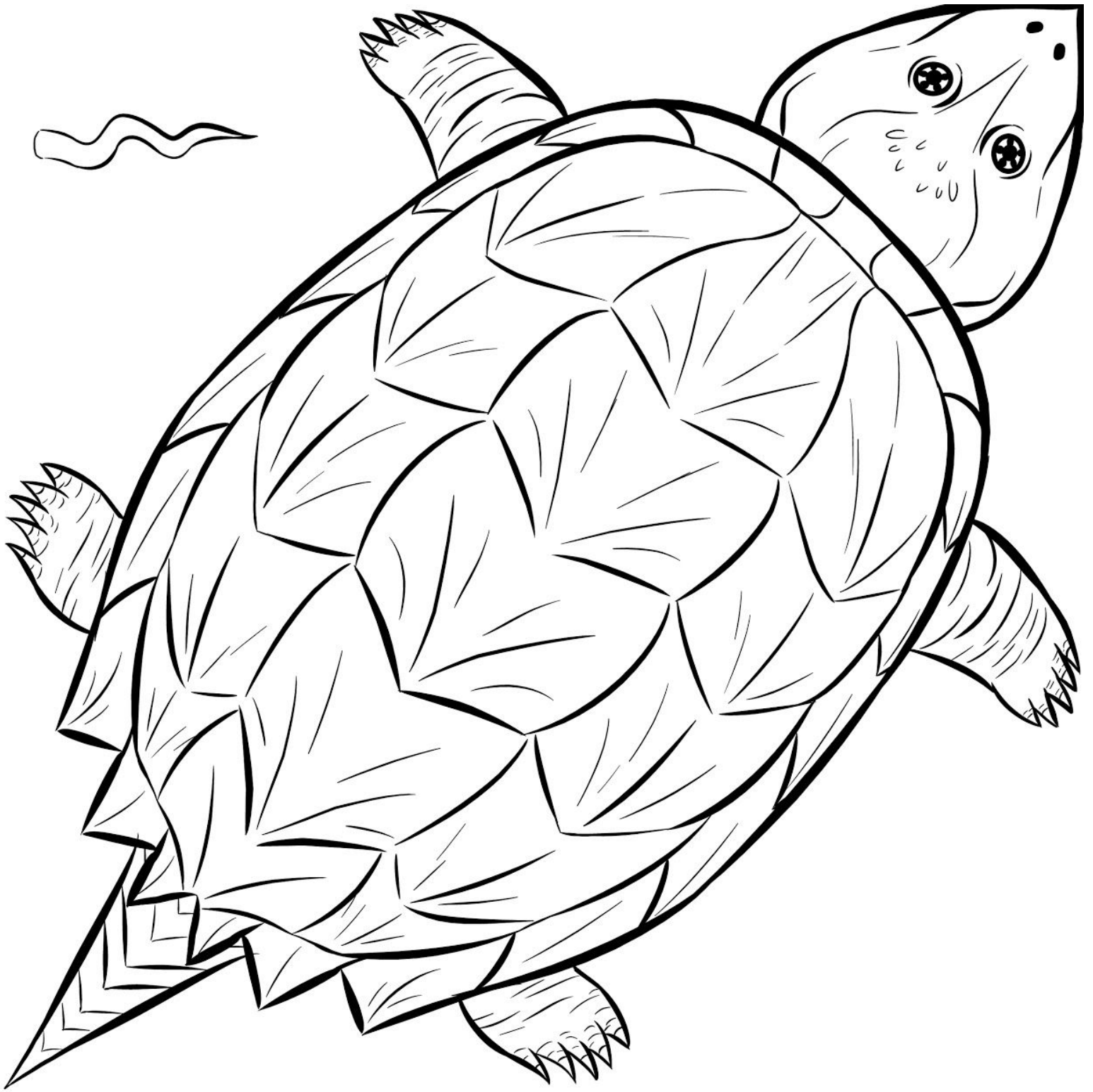
1. **Color in** the turtle, tongue, fish, and origami mouth.
2. **Cut out** the turtle, tongue, fish, and square origami mouth with scissors.
3. **Fold** the origami mouth using the step-by-step photos on the next page as a guide.
4. **Tape** the turtle body to the origami mouth, letting the nose corner hang over the mouth a bit to give the snapping turtle its characteristic pointy nose.
5. **Tape** the tongue inside the origami mouth.
6. **Insert** your fingers into the origami mouth and practice snapping up some fish!



How to fold the origami mouth:

- a. **Fold** the square in half along the "1" to make a large triangle.
- b. **Fold** in half along the "2" to make a smaller triangle.
- c. **Unfold** back to the original square, then **fold** each corner (where the "3" is) to the square's center.
- d. **Flip** the square over and **fold** all four corners (where the "4" is) to meet in the middle.
- e. **Fold** in half vertically, then horizontally.
- f. **Push** your fingers underneath the tabs and wiggle them to **open** the four points.
- g. **Fold** under each of the four corners (where the "3" is), then **tape** the two top "upper jaw" tabs together and the two "lower jaw" tabs together







La Tortuga Mordedora Masticador

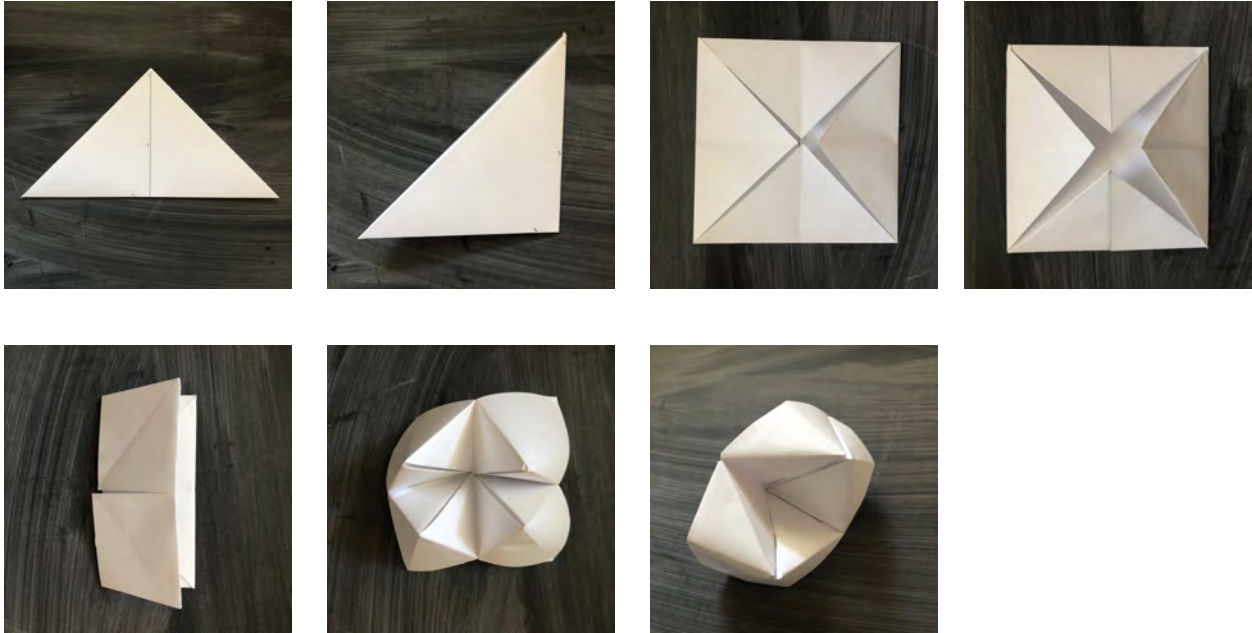
Las tortugas caimanes tienen una lengua especial que parece como un gusano. Cuando la tortuga abre su boca, su lengua tenta los peces para mirar más cerca, y entonces... ¡ÑAM! Tiempo de merendar. Haz tu propia tortuga caimanes masticador a través de siguiendo las instrucciones que están abajo y ¡empieza morder algunos peces!

Materiales

Plantillas imprimidas (páginas 3 y 4)
Crayones o lápices de colores
Tijeras
Cinta adhesiva

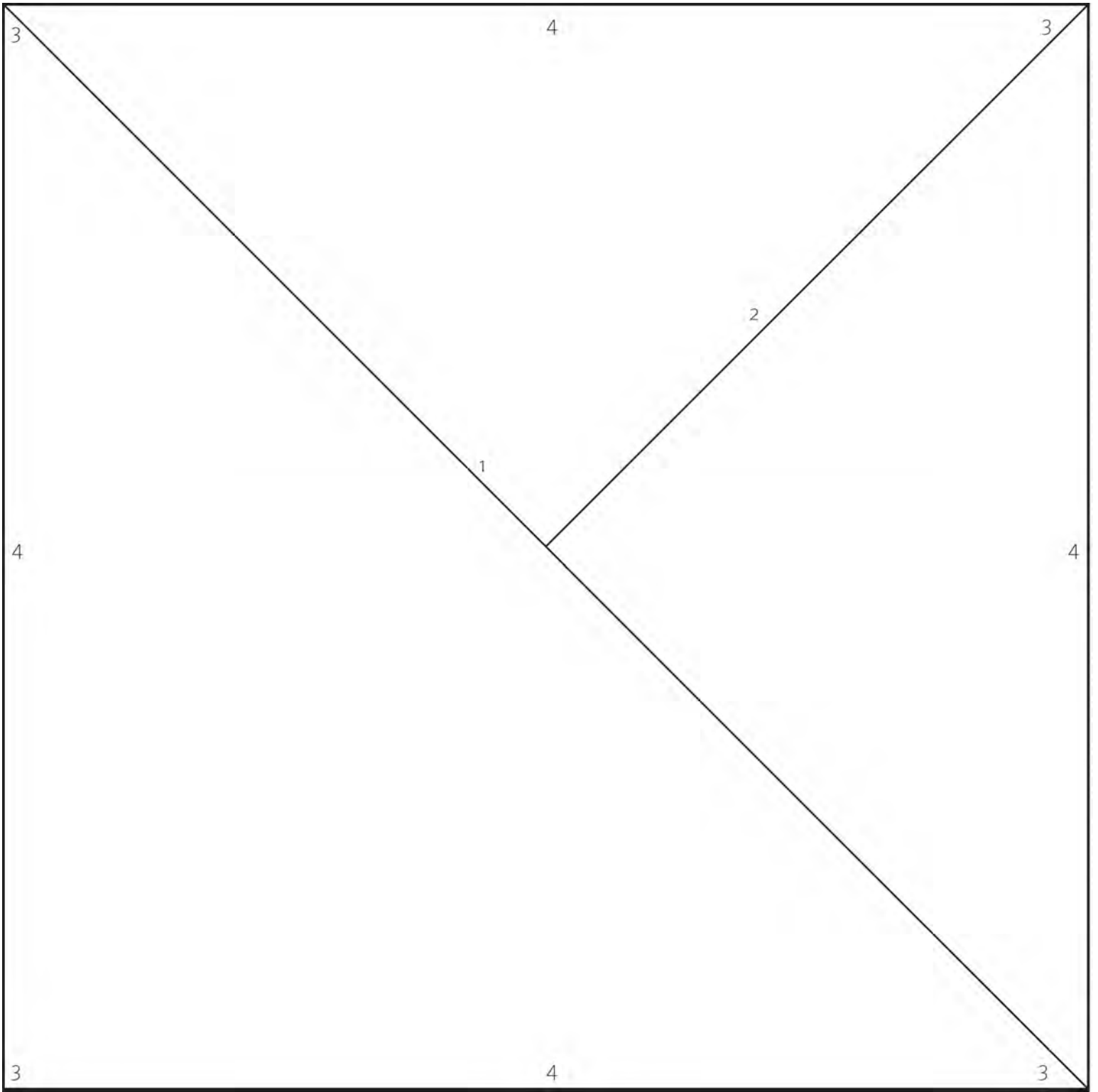
Instrucciones

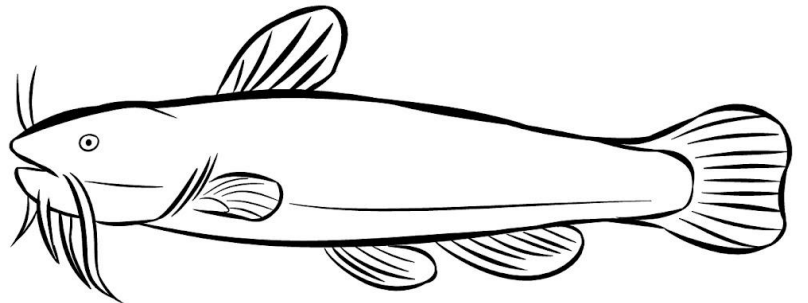
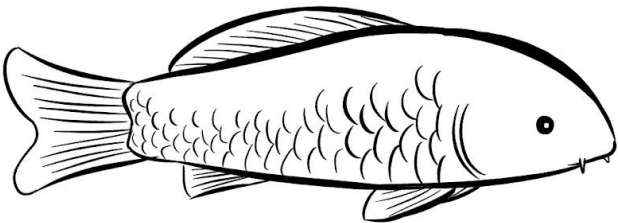
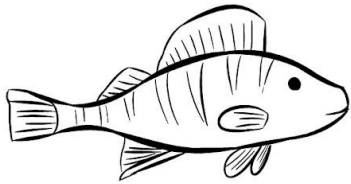
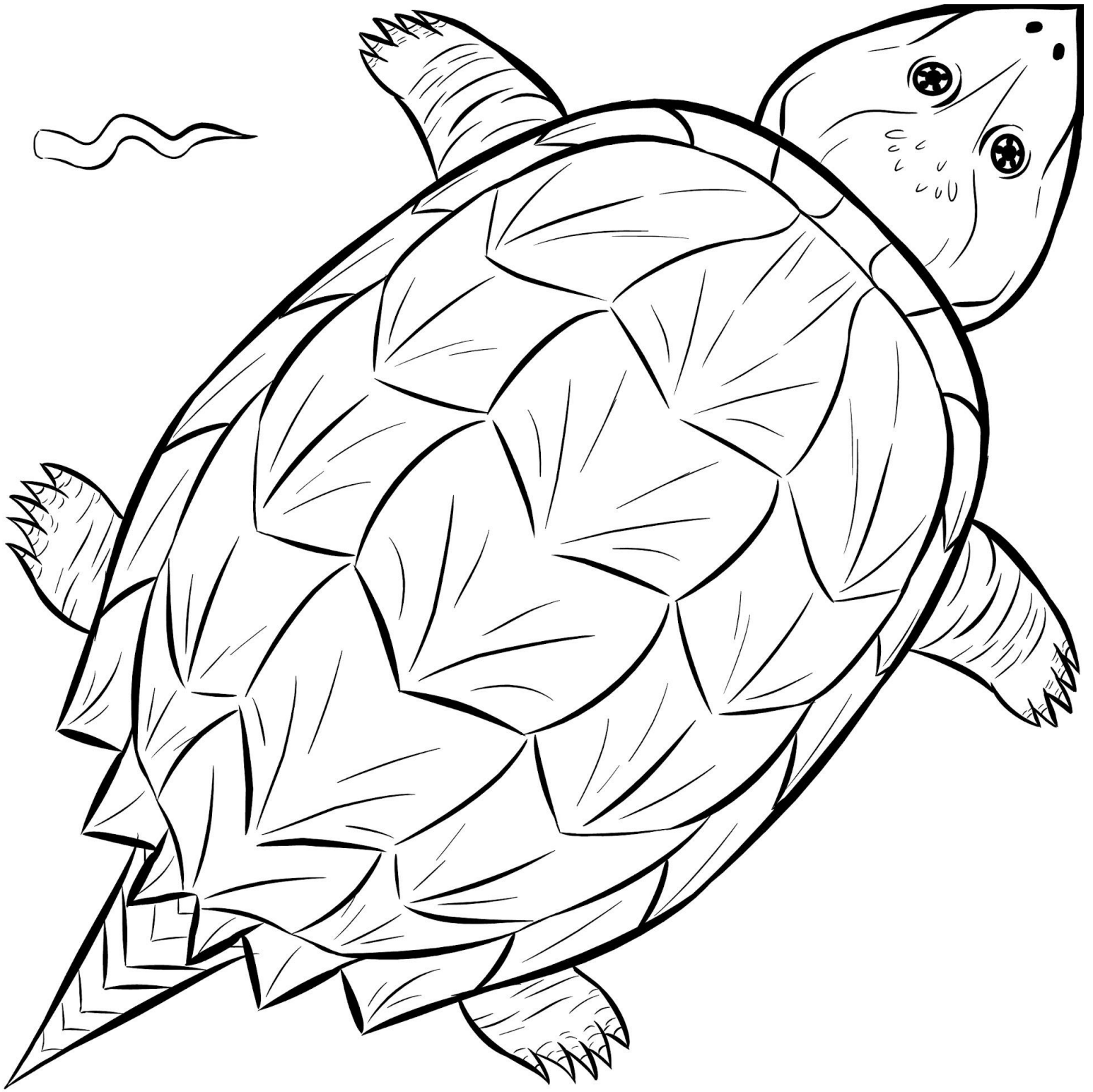
1. Colorea la tortuga, lengua, pes, y boca de origami.
2. Corta la tortuga, lengua, pes, y boca cuadrada de origami con tijeras.
3. Dobra la boca de origami usando las fotos que explican paso a paso en la siguiente página como una guía.
4. Pega el cuerpo de la tortuga a la boca de origami, dejando que la esquina de la nariz cuelga arriba de la boca un poquito para dar a la tortuga mordedora su nariz puntiaguda característica.
5. Pega la lengua dentro de la boca de origami.
6. Inserta tus dedos dentro de la boca de origami y ¡práctica morder unos peces!



Instrucciones para doblar la boca de origami:

- a. Dobra el cuadrado en mitad a lo largo de "1" para hacer un triángulo grande.
- b. Dobra en mitad a lo largo de "2" para hacer un triángulo más pequeño.
- c. Desdobra al cuadrado original, y después dobla cada esquina (donde el "3" está) al centro del cuadrado.
- d. Voltea el cuadrado y dobla todas las esquinas (donde el "4" está) para unirse en el medio.
- e. Dobra en mitad verticalmente, y después horizontalmente.
- f. Empuja tus dedos abajo de las lengüetas y menealas para abrir los 4 puntos.
- g. Dobra debajo de cada esquina (donde el "3" está), y después pega las dos lengüetas de la mandíbula superior juntas con las dos lengüetas de la mandíbula inferior.







Swamp in a Bottle

Swamps and other wetlands are vitally important ecosystems, acting like natural water filters. As fresh water travels towards the ocean, wetlands slow it down, allowing plants and the porous soil to absorb pollutants. Create your own "Swamp in a Bottle" with natural materials to see for yourself.

Please note: This "Swamp in a Bottle" does not make dirty water safe to drink.

Materials

Lidded jar or container

One 2-liter plastic bottle, empty and clean (alternative: a funnel and a clear cup)

Scissors

Tape

Coffee filter or paper towel

Found natural materials (such as: gravel, sand, clay, dirt, old leaves, fresh leaves, pine needles)

Directions

1. **Gather** the natural materials. Be careful not to disturb live plants and animals, take only what you need, and make sure to follow the rules of the natural environment you are visiting.
2. **Prepare** the muddy water by mixing some dirt with tap water in the lidded jar.
3. **With an adult's supervision**, cut the 2-liter bottle into two pieces, about $\frac{1}{3}$ down from the top. If the edges are rough, cover them with tape. (Skip this step if you are using a funnel and a cup.)



4. **In the top part of the bottle,** create your swamp using your found materials:
 - a. **Add** the coffee filter so it sits in the spout.
 - b. **Add** a few layers of dirt. Start with finer dirt, like sand, then add gravel.
 - c. **Add** a few layers of plants. Start with old leaves, then add fresher plants toward the top.
5. **Nest** your swamp model inside the bottom part of the bottle, with the spout facing down.
6. **Pour** some of the muddy water into your swamp to test your filter. Save a little bit of muddy water so you can compare it to your filtered water. Wait while the muddy water filters through your swamp. How long does it take?
7. **Compare** the water that collects in the bottle to the muddy water you started with. Do you notice any differences?
8. **Now, experiment!** Run the water through your swamp multiple times, or try a different sequence of layers in your swamp to see if your results change. What could this tell you about how water filtration works in a real swamp?
9. **Challenge:** Can you build your swamp without the coffee filter? Try layering leaves on the nozzle of your bottle instead.



The Academy is grateful to the LSU AgCenter for providing the inspiration for the "Swamp in a Bottle" activity. Learn more:

<https://www.lsuagcenter.com/profiles/lblack/articles/page1586359626580>



Welcome to the Cypress Swamp!

Many plants and animals make their homes in the cypress swamps of the Southeastern United States. Can you spot:

Bald Cypress: These long-lived trees grow large and tall in the swamps, providing shade and shelter to the animals that live there.

Great Egret: These large birds live year-round in the swamps and wade through the water searching for prey.

American Alligator: As top predators in the swamp ecosystem, alligators ambush prey by submerging themselves and waiting to strike.

Red-Bellied Cooter (Turtle): Found throughout the swamp, these herbivorous turtles can often be spotted basking on logs.

Alligator Gar: The diet of these "living fossils" includes fish, birds, and small mammals near the water's surface.

Lily Pads: Known for their beautiful flowers, these aquatic plants are considered invasive outside their natural range in the swamp.

¡Bienvenidos al pantano de ciprés!

Muchas plantas y animales hacen sus hogares en los pantanos de ciprés del sureste de los Estados Unidos. ¿Puedes detectar:

Ciprés calvo: Estos árboles de larga vida crecen grandes y altos en los pantanos, proporcionando sombra y refugio a los animales que viven allí.

Garceta grande: Estas grandes aves viven durante todo el año en los pantanos y vadean a través del agua en busca de presas.

Aligátor americano: Como los principales depredadores en el ecosistema pantanoso, los aligátos emboscan a sus presas sumergiéndose y esperando para atacar.

Tortuga de vientre rojo: Encontradas en todo el pantano, estas tortugas herbívoras a menudo se pueden encontrar tomando el sol en troncos.

Catán: Llamados “fósiles vivos”, la dieta del catán incluye peces, aves y pequeños mamíferos cerca de la superficie del agua.

Hoja de nenúfar: Conocidas por sus hermosas flores, estas plantas acuáticas se consideran invasoras fuera de su área de distribución natural en el pantano.



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