

MOST WANTED

Species: Asian Small-Clawed Otter



Conservation Status:
Vulnerable

Most Wanted Because:
Asian Small-Clawed Otters are indicators of a healthy and balanced ecosystem.

Species Adaptations:

- Strong teeth and paws to crack open the shells of clams and mussels
- Less webbing on their feet than other otter species to make their paws more flexible
- Whiskers help detect changes in water current and pressure

Donate to Otter conservation!
Cikananga Wildlife Center



REWARD!

Asian Small-Clawed Otter

“Small, but mighty!”

As the smallest of the 13 species of otters, Asian Small-Clawed Otters prove that size doesn't make a difference on their impact in the environment!

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Dear facility,

The Otter Education Advisory Group invites you to participate in World Otter Day on May 31, 2023! World Otter Day was founded by the International Otter Survival Fund as a way to celebrate the 13 otter species while raising awareness about the threats otters are facing in the wild and highlighting conservation efforts around the world. The Otter Education Advisory Group has put together this packet to help your facility highlight these amazing animals during World Otter Day.

In this packet you will find otter facts, conservation efforts, messaging, activities and more to help you highlight World Otter Day at your facility. Our theme this year is “Most Wanted” and we are highlighting why otters are valuable to their ecosystems.

We hope you are able to join us in celebrating Otters on May 31st! If there are any questions regarding this packet please feel free to e-mail us at ottereducationadvisorygroup@gmail.com

Thank you and Happy World Otter Day!

Sincerely,

The Otter Education Advisory Group



The Otter Education Advisory Group is a collective of dedicated animal care professionals and educators who provide resources to inspire Zoos and Aquariums to promote an active enthusiasm for otter conservation and education through facility promoted community engagement.

Natural History and Species Facts

Class: Mammalia

Order: Carnivora

Family: Mustelidae

Genus and Species: *Aonyx cinereus*

Common names:

- Asian Small-Clawed Otter
- Oriental Small-Clawed Otter
- Asian Short-Clawed Otter
- Small-Clawed Otter

Named for their short vestigial claws

Distribution:

Found throughout Southeast Asia in a variety of countries (India, China, Indonesia, the Philippines, etc.)

Habitat:

Found in small streams, rivers, marshes, rice paddies, seacoasts, and mangroves.

Longevity:

Average lifespan in human care is 12-16 years with some individuals living up to 20 years old. Life span in the wild is unknown.

Physical characteristics:

- Smallest of the 13 species of otters weighing no greater than 10 lbs and measuring no greater than 2 feet in length from the tip of the nose to tip of tail.
- Body is covered in short, mostly dark brown fur with lighter brown patches on its throat and chin.
- Have long whiskers that assist in detecting changes in water current and pressure.
- Elongated body creates a streamlined shape (not as dramatic as other otter species).
- Tail is thick and muscular at the base, then gradually tapers to a small tip.

Diet:

ASCO are carnivores eating primarily crustaceans and mollusks, but will also eat fish, insects, amphibians, and reptiles. The most common prey items are crayfish, crab, clams, and mussels.

Social Structure:

ASCO are a very social species found living in large family groups of an average of 4-12 individuals, with some being up to 20 individuals. The family group consists of a monogamous breeding pair, their offspring, and sometimes unrelated individuals. Only the breeding pair breeds while in the family group. The family group will stay together usually until one of the breeding pair passes away.

Communication:

ASCO communication through both verbal and non-verbal forms.

Verbal communication:

- ASCO are a vocal species having a variety of vocalizations used for contact, summons, greeting, threat, and alarm calls.

Non-verbal communication:

- Scent marking is an important form of communication. A pair of scent glands at the base of the tail emit a musky secretion that can mark their territory and communicate information concerning identity, sex, sexual receptivity, and time elapsed between scenting visits
- Spraint is scent marked feces. Sprainting occurs in communal latrines to pass on information. Oftentimes the otters will create a mound for sprainting out of rocks and substrate. While sprainting, the otters will “dance” in their feces to assist in smearing and spreading it.

Reproduction:

ASCOs become sexually mature sometime around 1.5 years old. They will breed year round. The female's estrous cycle is 28-30 days with a 3 day period of estrus. After a gestation of 68-72 days, females give birth to a litter of 1-6 pups (average is 2-4). Typically only two litters of pups are born each year. All members of the family group help feed and care for the young.

They dig nesting burrows called holts into the muddy river banks where they live. The holt typically has to access tunnels, one that leads under the water and another that leads up to land. Sometimes abandoned dens or burrows of other animals will be used. The holt is where the young are born and where the family group sleeps.

Adaptations for swimming:

ASCOs enjoy spending time in the water swimming, hunting, and playing. They have a few adaptations to help them swim.

- Partial webbing between their toes creates a paddle for them without hindering their manual dexterity and ability to climb.
- Two layers of fur that has two functions:
 - The two layers assist in keeping the otters warm and dry because the top layer (or guard hairs) prevent water from touching their skin.
 - The two layers also trap a layer of air in between creating a built in flotation device for ease of swimming on the surface of the water (this also assists with insulation).
 - Valves in their ears and nose close when they go underwater to prevent water from entering these crevices.
 - When the otter is submerged in the water, the heart rate and oxygen consumption are reduced, this is called Bradycardia. They can spend upwards of 8 minutes underwater.
 - Their streamlined shape allows for them to glide through the water with little resistance.

Fun Facts:

- They have an enlarged portion of the brain called Sigmoid Gyrus. This interprets signals from the digital pads on their paws. Because of this they have very sensitive toe pads and are one of the only otters that will grab or feel for things with their forepaws when hunting. They feel under rocks or in murky water for food.
- Like many other otter species, ASCO have been known to use tools to assist in eating their prey items. Unlike many other species, they have been observed to use the heat of the sun to break open the shells of the clams and mussels.
- Due to their large group living and fast maneuvering they do not have many predators. Some predators observed have been crocodiles, water snakes, and sometimes large carnivores.

Asian Small-Clawed Otter Conservation:

Status: Vulnerable

Population Trend: Decreasing

Asian Small-Clawed Otters are mainly threatened by habitat destruction, depletion of food sources, and illegal hunting.

Habitat destruction:

Habitat destruction is the process by which a habitat is incapable of supporting its native species. Asian Small-Clawed Otters are found in a variety of habitats throughout Asia and Southeast Asia including marshes, rivers, small streams, rice fields, seagraves and mangroves. The growing human population, development and spread of industrialization have had a significant effect on these otters in their habitats. Loss of habitat in Asia is largely due to construction of plantations for tea and coffee farming as well as habitat loss through aquaculture activities. In addition, logging, agriculture, and human settlements have directly taken away the otter's home, but it also has increased the amount of pollution and sediment in the rivers. Increased road construction has led to a rise in otter roadkill. Creation of dams has led to some wetlands drying up and forcing otters to move. In general, habitat destruction is leading to fragmented populations.

Depletion of food source:

Asian Small-Clawed Otters are carnivores and eat a few different types of meat. They will consume crustaceans, mollusks, fish, invertebrates, and sometimes small reptiles and birds. With more pollutants and sediment sent into the waterways in which they live near, their prey biomass has gone down, taking away their food source. They also can be in competition for food with the humans that move into their habitats and settle down. Overexploitation of prey items by humans rapidly depletes the amount of food available to the otters in the area.

Illegal Hunting:

ASCO are hunted for a variety of reasons.

- Their fur demands a high price in the illegal wildlife trade and in some areas their organs are believed to have medicinal uses.
- In some areas they are a food source for the local population and are hunted for their meat
- They are wanted for the exotic pet trade
 - Unfortunately, they often times don't survive due to insufficient care
- Seen as a pest by fishermen because they will sometimes eat fish caught in the nets and destroy the nets as well. ASCO are also sometimes considered pest species in the rice paddies because they uproot seedlings while foraging for crayfish that eat the rice seedlings. This causes a conflict with the farmers.

Things we can do to help:

- Go green! By being conscious of our individual uses we can help otters out. Step one: Reduce waste, cut back on 'single-use' items which cannot be recycled and end up polluting habitats and water systems. We can also find ways to reuse these items. And of course, recycle when we can!
- Help stop pollution. Even if we cut down on our own waste, what can we do about all the other people in the world? We can clean up when we see trash. Get involved in a local creek cleanup or head down to your closest park, creek or beach and start your own clean up!
- Spread the word about how awesome otters are and what you have learnt today about them and how you can help them!

Why should we help?:

- Otters are an indicator species which means they can let us know how the environment is doing. Otters are at the top of their food chain and if they are observed in an area it tells us that the whole ecosystem is doing well from the bottom up! If otter numbers start declining or no longer exist in areas they once did, it lets us know that those habitats aren't doing so well and means

those are the areas we should focus our conservation efforts on. Otters are very important!

- All wildlife is interconnected. If otters, or any species, depletes to the point of extinction the whole game can change. Without otters consuming their share of their prey then these species would overpopulate and cause their own types of destruction. Preserving a species also provides the raw material for the evolution of new species in the future.
- Once they are gone they can never come back!

CRAFTS

Several crafts can be made from recyclable materials that can be found in your home or picked up from outside! These following crafts can encourage people to help keep their communities clean by reusing household items or picking up items in their neighborhoods!

- **DIY Planters:**

- Yogurt pots or cups, glass jars, and plastic containers are all great items which can be recycled to prevent pollution, but also allow us to help the environment by planting seedlings and learning how plants grow!



- **DIY Wind Chimes or Mobile:**

- Soda cans, tin cans, sticks, plastic bottles etc. can all be strung together to make your very own mobile or wind chimes to hang. You can decorate them with paint or markers.



- **DIY Toilet Paper Roll Otter:**

- Toilet paper rolls, paper towel rolls, cardboard, and markers/paints can all come together to help create your very own otter!



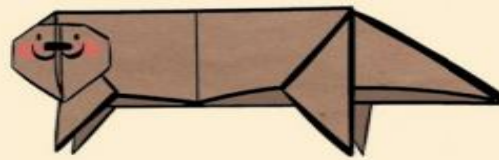
The following activity could be conducted at your facility and the items could be used as enrichment for the otters depending on the facilities policy!

- **Noise Maker/Rattle:**

- Plastic Bottle (water bottles, gatorade bottles, soda bottles, etc) filled with small rocks, small shells, or other small nature items that the otters can have help create an easy noise maker!

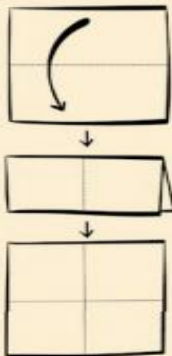


Otter Origami

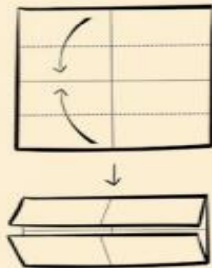


DOBRAR \ FOLD -----
 MARCA DA DOBRA \ FOLD MARK -----

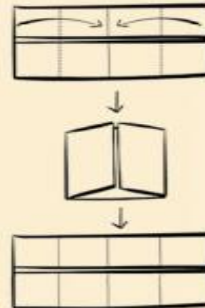
1 Faça as dobras indicadas no desenho, em um papel quadrado, para marcá-lo.
 Make the folds indicated in the drawing, on one square paper, to mark it.



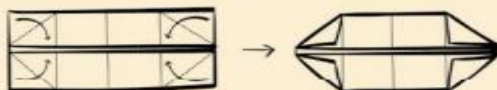
2 Leve as laterais do papel para o centro. Mantenha o papel dobrado para o próximo passo.
 Take the sides of the paper to the center. Keep the paper folded for the next step.



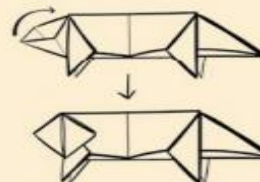
3 Leve as laterais do papel para o centro, como indicado no desenho. Depois, desfaça a dobra para o próximo passo.
 Take the sides of the paper to the center as indicated in the drawing. Then undo the fold for the next step.



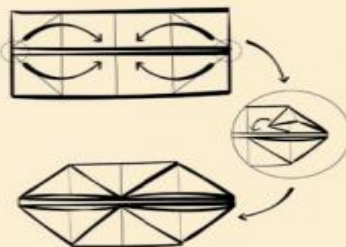
4 Leve as pontas do papel, como indicado no desenho, em direção ao centro. Pressione bem as dobras para marcar o papel.
 Take the edge of the paper, as indicated in the drawing, towards the center. Press the folds down firmly to mark the paper.



8 Abra a parte indicada no desenho e leve a ponta do papel até as costas da ariranha. Essa dobra fará o rostinho da ariranha.
 Open the part indicated in the drawing and bring the end of the paper to the back of the giant otter. This fold will make the giant otter's face.



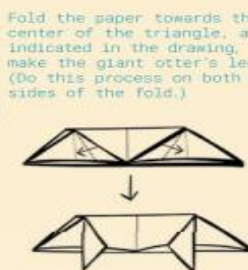
5 Desfaça as dobras e utilize a marcação da mesma para levar uma das pontas do papel até o centro, conforme o desenho.
 Unfold it and use the same marking to take one of the edges of the paper to the center, as indicated below.



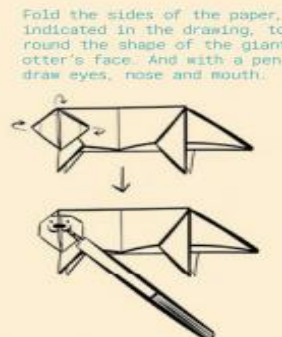
6 Dobre o papel ao meio, como indicado no desenho.
 Fold the paper in half as indicated below.



7 Dobre o papel em direção ao centro do triângulo, como indicado no desenho, para fazer as perninhas da ariranha. (Faça esse processo nos dois lados da dobradura.)
 Fold the paper towards the center of the triangle, as indicated in the drawing, to make the giant otter's legs. (Do this process on both sides of the fold.)



9 Dobre as laterais do papel, indicadas no desenho, para arredondar o formato do rostinho da ariranha. E com uma canetinha, desenhe olhos, nariz e boca.
 Fold the sides of the paper, indicated in the drawing, to round the shape of the giant otter's face. And with a pen, draw eyes, nose and mouth.



Activities

Level 1: No Staff Needed

This level of activity is designed to be hands off for staff members at your facility. Simply have a poster, print out, etc. located at a station where guests can help themselves and learn more about otters!

MAZE ACTIVITY

Take Away:

Asian Small clawed otters are a very social species living in large family groups. Parents and siblings all aid in upbringing of new pups including teaching them how to hunt, swim and play.

DANCE OFF

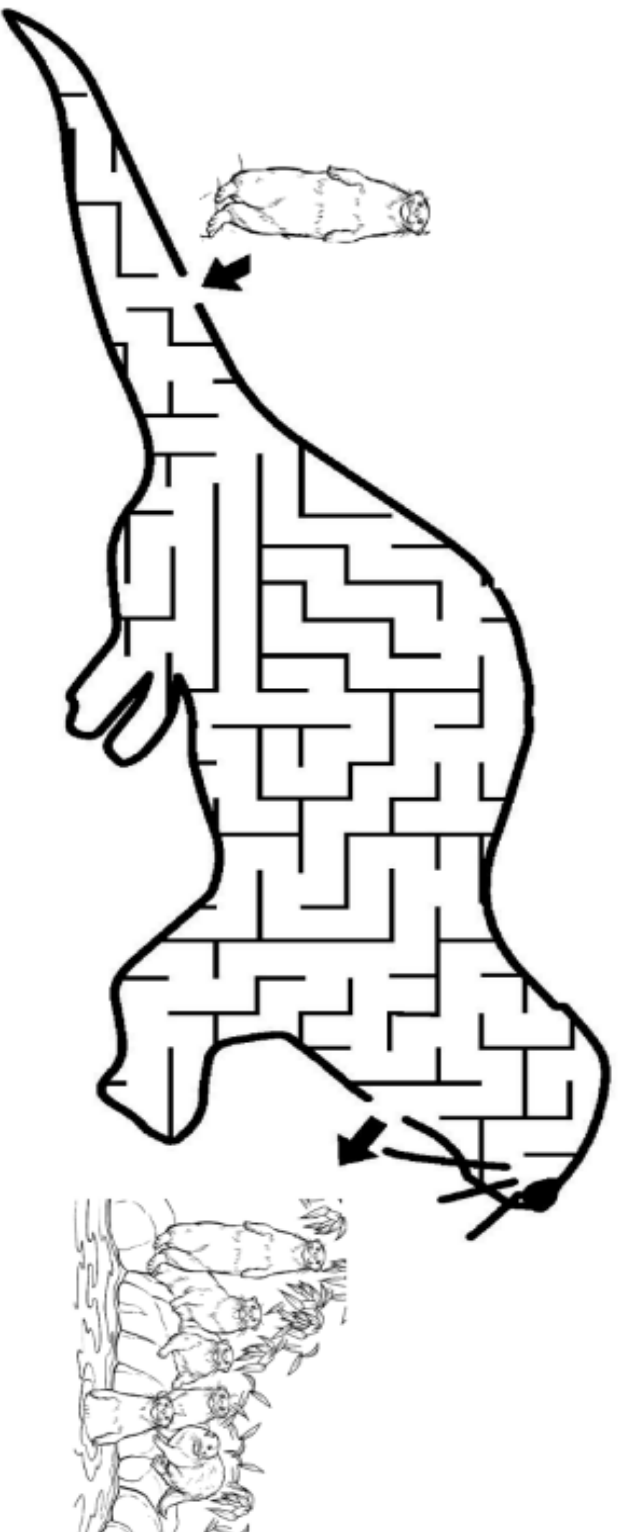
Take Away:

Living in a family group means that communication is vital to Asian Small Clawed Otters. ASCO communication can be split into Verbal and Non-Verbal Communication. Non-verbal communication includes sprainting, and provides very valuable information about individuals.

Print out of activities on next page

Asian Small Clawed Otters are a social species of Otter. They can live in family groups ranging, on average, from 4 to 12 individuals. These family groups have been known to be as big as 20 individual otters! The group consists of a breeding pair: the parents, and many offspring: their children. Everyone in the family plays an important part and older siblings will help teach and take care of younger siblings. Young otters need their family to teach them how to forage, swim and play.

CAN YOU HELP THE OTTER GET HOME TO HIS FAMILY?



Living in large family groups means communication is very important to Asian Small Clawed Otters. They have 2 types of communication: Verbal and Non-Verbal. Asian small clawed otters have several different vocalisations including greetings, alarm calls, summons and threats to name a few. Listen! Can you make out different calls? Non-verbal communication is done through scent marking. Otters have a scent gland at the base of their tail for scent marking which can be useful for marking their territory and providing other information. Asian Small Clawed Otters partake in 'Sprainting'; this is where the otters scent mark their feces. After doing their business, Otters will 'dance' in it to help spread it and communicate to one another. Watch! Can you see sprainting behavior? – **Time for a Dance Off!** Gather your friends and show us your best moves, can you dance like an otter?

Level 2: A Staff Member and Props Needed

This level of activity requires moderate hands on by staff with set up and guidance through each activity.

FORAGING ACTIVITY

Asian Small-clawed otters are not only the smallest member of the **13 species** of otters worldwide, but they are also one of three species of otters known as “**finger otters**”. These curious little critters have an enlarged portion of the brain (**sigmoid gyrus**) that interprets signals from the digital pads on their paws. These paws are super sensitive, and one of the primary ways they search for food is by using their paws to feel between rocky crevices at the bottom of rivers, creeks, and streams. Most of the time they don’t even look at what they are doing while they paw around for **crustaceans, insects, and small fish!** Asian small-clawed otters not only have sensitive whiskers located on their muzzle to aid in prey detection, but they have whiskers on their front elbows to help them as they forage with their paws as well! The following activity is created to simulate the unique (and oddly cute) way in which Asian small-clawed otters hunt for their prey.

Materials

Small backyard “kiddie pool” filled with plastic balls/tennis balls/golf balls

Small game pieces or plastic toys

Blindfolds

Goal

Participants wear blindfolds while using their hands to feel around the ball pit for small items that are scattered throughout the pit (game pieces/plastic toys/etc.) Whoever forages the most items within 30 seconds wins a prize!

Take Away

Asian Small-clawed otters have a unique method of hunting which is specific to the species. They have special adaptations, including an enlarged sigmoid gyrus and vibrissae on their elbows, which allow them to hunt effectively using their front paws. Challenge the guests to look for this behavior when they observe the animals on exhibit!

***This option could also be used as a virtual option for guests to be used at home by giving them all of the instructions and dialogue!**

CLEAN THE WATERWAYS ACTIVITY

There are 13 different otter species throughout the world that live in a variety of habitats from rivers, marshes and mangroves, to coastal waters. All otters have an important role in their habitat because they are an indicator species. This means that their presence, or lack thereof, will show you how healthy the habitat or ecosystem in which they live, is. This is important because ecosystems are made up of living things, like animals and plants, but also non-living things such as water, air, and soil. Ecosystems are also all connected, so what happens in one can have a great effect on others and we, as humans, occupy an ecosystem as well. Not only for our sake, but for the sake of everyone we want to make sure that all ecosystems remain healthy and we can look to the otters, as an indicator species, to see if we are doing that. The following activity is designed to assist you in communicating the message of the importance of keeping our waterways clean.

Materials:

Rubber tub, kiddie pool, or some other container to put water in

Trash/debris commonly found in waterways

Something to represent an otter and fish/other prey items (animal figurine of some sort)

Goal:

Container with water begins with the otter and fish/other prey item representations in it to show what the habitat starts out as. During the activity, trash/debris is added to the water and the fish/prey items and otters are simultaneously taken out of the water. Participants are then asked to take out the items that don't belong in the water and as the items are taken away, the fish/prey items and otters are returned to the water.

Take away:

Otters are an indicator species and they can tell you how healthy an ecosystem is. All ecosystems are connected and have an effect on one another. We as humans can have an impact on different habitats and ecosystems through our actions, but we can choose to have a positive impact on them by doing simple conservation actions, one of these being picking up and properly disposing of trash.

Other messages along with this could be recycling, saying "no" to plastic straws, using reusable shopping bags, etc. This can be tailored to your institution's specific messaging.

Challenge your guests to pick up any trash they see in the park or their neighborhoods and properly dispose of it!

Level 3: Multiple Staff Members and Props Needed

This level of activity requires to be heavily hands on by staff members with set up and directions for participants.

Otter Survival Board Game Activity

Asian Small-Clawed Otters face a wide variety of threats in their environments, many of which are man-made. This hands-on activity allows children to explore some of these threats, and learn to make changes in their daily lives to benefit all wildlife.



Materials: sidewalk chalk bowl with slips of paper (instructions)

Instructions: Children can help with creating the board (see above image), and the board can be as big or complex as desired. Create links between different spaces for fun short cuts. The children themselves will be the moving pieces during this game. Kids will draw instructions out of a bowl which will inform them on how many spaces to move. Alternatives could be to draw from a card pile or spin a specially made wheel. Props like trash, fish toys, recycled bottles, nets, alligators, etc. can be placed or drawn on the squares to identify hazards as they move along the board, and can also signify moves forward or backward.

Examples: -

- you recycled a plastic bottle! Move ahead 2 spaces
- you ate sustainably sourced fish! Jump ahead 3 spaces
- you threw a plastic bag on the ground. Move back 2 spaces
- you left a net in the water after fishing. Move back 3 spaces.
- you are OTTER this world! Move ahead 2 spaces
- you bought an otter online for a pet! Start from the beginning.
- your boat leaked oil into the river! Move back 2 spaces.

Take Away:

Otters face a multitude of threats, most of which are inadvertently caused by humans. We can change our habits to make the world a safer place for otters to live and thrive.

Virtual Activity Options

Otter Cupcakes!

Blend some white and brown modeling chocolate and cut out two circles, press these onto the Reese's as cheeks, press whisker shapes into them.

Form a jelly bean nose from black modeling chocolate and push onto the Reese's, between the cheeks.

Cut out two circles of black modeling chocolate to make eyes and place on your Reese's. A reusable metal straw is the perfect size cutter!

Finally, cut out two semicircles from brown modeling chocolate and assemble on the sides to make ears.



Then pipe a big swirl of stiff chocolate frosting onto a chocolate cupcake; or buy already frosted cupcakes!

Place a Reese's Cup Sea Otter into the top half of the frosting.

Press two Whoppers into the front of the frosting to be the otter's paws.

Press one candy seashell or fish in between the hands!



Enjoy!

Adult Coloring Page



What Do Otters Eat?

An easy, fun, and visual craft/activity to help illustrate what ends up in the otter's stomach!

Materials

- Paper Plate
- Construction paper
- Tape/glue stick
- Colored pencils/markers

Goal

Participants can craft an otter utilizing a paper plate, construction paper, and colored pencils. The center of the plate will act as the otter's stomach. When asked "what do otters eat?", participants should draw their guesses in the otter's stomach.

Directions

1. Cut out an otter head, two front feet, two hind feet, and tail from the construction paper
2. Tape/glue these pieces on the outside of the paper plate (head at the top, tail at the bottom, feet on the sides)
3. Draw prey items in the middle of the paper plate

Take Away

This activity will help illustrate what types of prey items the otters consume, what the definition of carnivore is, and can touch on how they hunt/the use of tools when eating.



You will need:

- Empty toilet paper roll or 1/3 of paper towel roll
- Scissors
- Markers
- Pencil
- Glue



Directions:

1. Take your empty toilet paper roll and cut it from top to bottom. Fold the roll so it lays as flat as possible.
2. Using the template provided, draw your otter's head, body, and limbs all on the outside of the roll.
3. Cut out the limbs and around the head and body of the otter, making sure to leave the rectangle to the right of the body attached as this will be used later.
4. Draw an oval in the middle of the body that extends slightly into the head for the lighter brown portion of the otter.
5. Color the limbs and areas around the oval a dark brown.
6. Draw the eyes, nose, mouth, whiskers, and inside of ears with a black marker.
7. Glue the arms on the body at an angle so they look like they are almost touching in the middle of the stomach.
8. Glue the top of the legs to the back of the bottom of the body so that most of them stick out and can be seen from the front.
9. Turn the otter so that the back is facing you and cut the part of the arms that stick out from the front.
10. While still looking at the back of the otter, fold the rectangle on the left completely and then fold in half again so that it acts as a stand for the otter to sit upright on its side.

Options for different variations:

- Use paint or colored paper instead of markers.
- Draw a fish in the middle of the arms.
- Use popsicle sticks as legs and plant them in your garden or house plant.



Step 1



Step 2



Steps 3—6



Steps 7 & 8



Step 9



Step 10



This craft was created by the education staff at the North Carolina Zoo.

You will need:

- 2 or more people
- A space to move around
- Your "animal's" favorite snack

Optional:

- Clicker or whistle



Background: Otter keepers use a training technique called positive reinforcement with their animals daily in order to keep them safe and healthy. These techniques work just as well with your pets (or siblings!) at home. Try this fun activity to help you practice and become a better trainer by seeing training from both a trainer and the animal's point of views!

Directions:

1. Split into groups of at least 2 or more people per group.
2. Each group decides who will be the "animal" and who will be the trainer.
3. The "animal" moves out of hearing and the trainer and the rest of the group decide what behavior they want their animal to do. Keep the behavior as simple as possible, something that they can physically do (no asking for back flips!) and is respectful to your "animal." For example, turn in a circle, wave, jump up and down, open a door, clap, pick up an object, etc. Just make sure it does not require multiple steps like opening a door and walking through it.
4. Bring the animal back into hearing range and the trainer will use a clicker, whistle, clap or say "good" as a conditioned reinforcer and then give the "animal" its favorite treat. Do this several times and your animal will quickly learn that when it hears that noise that something good is coming!
5. Once your "animal" has connected the noise with the treat, let them wander around and try to figure out what your behavior is without any talking or hints from the trainer or anyone else in the group.
6. Anytime the "animal" makes a move towards the behavior the trainer makes the noise and rewards the "animal." For instance, if the behavior is open the door, anytime the animal steps in the direction of the door, make the noise and reward them. Keep reinforcing them (making the noise and rewarding) until they make the completed behavior! Once they do the behavior give them several treats, trainers call this the "jackpot," to let them know that was the desired behavior.

Hint: If your "animal" gets stuck, try moving to another part of the room, changing the behavior or being more generous with your reinforcers.

7. Now the "animal" becomes the trainer and the trainer becomes the "animal" and repeat steps 3-5. Keep repeating until everyone in the group gets a chance to be the trainer and the "animal."

Directions created by the education staff at the North Carolina Zoo.

