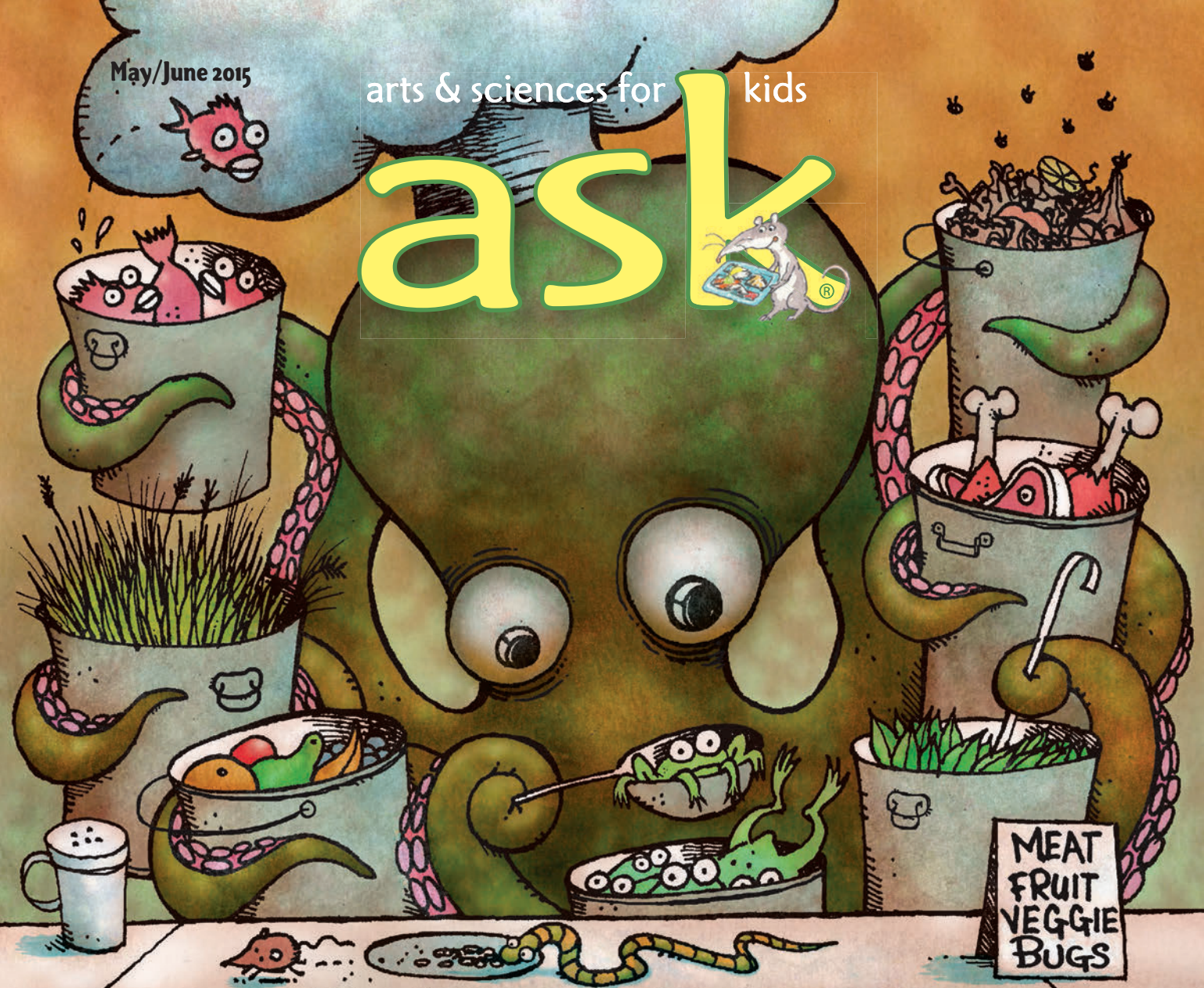


May/June 2015

arts & sciences for kids

ask



Critter Cafeteria



From the publisher
of Cricket®

Liz Huyck Editor
Meg Moss Contributing Editor

Karen Kohn Senior Art Director
Pat Murray Designer

David Stockdale Permissions Specialist

ASK magazine (ISSN 1535-4105) is published 9 times a year, monthly except for combined May/June, July/August, and November/December issues, by Cricket Media, 70 East Lake Street, Suite 800, Chicago, IL 60601. Periodicals postage paid at Peterborough, NH, and at additional mailing offices. One-year subscription (9 issues) \$33.95. GST Registration Number 128950334. For address changes, back issues, subscriptions, customer service, or to renew please visit cricketmedia.com, email customerservice@cricketmedia.com, write to ASK, P.O. Box 807, Peterborough, NH 03458-0807, or call 1-800-821-0115. POSTMASTER: Please send address changes to ASK, P.O. Box 807, Peterborough, NH 03458-0807.

May/June 2015, Volume 14, Number 5 © 2015, Carus Publishing dba Cricket Media. All rights reserved, including right of reproduction in whole or in part, in any form. Address correspondence to Ask, 70 East Lake Street, Suite 800, Chicago, IL 60601. For submission information and guidelines, see cricketmedia.com. We are not responsible for unsolicited manuscripts or other material. All letters and contest entries accompanied by parent or guardian signatures are assumed to be for publication and become the property of Cricket Media. For information regarding our privacy policy and compliance with the Children's Online Privacy Protection Act, please visit our website at cricketmedia.com or write to us at CMG COPPA, 70 East Lake Street, Suite 800, Chicago, IL 60601.

Grateful acknowledgment is given to the following publishers and copyright owners for permission to reprint selections from their publications. All possible care has been taken to trace ownership and secure permission for each selection.

Cover Illustration © 2015 by Dave Clark

Photo acknowledgments: 2 (RT) Santiago, David, (RC) Wendy Valencia, (LB) Glacier Archaeology Program/Oppland County Council; 2-3 (BC) Kulturhistorisk museum, Universitetet i Oslo, Vegard Vike; 3 (RB) Oceanlab, University of Aberdeen, U.K., (RT) Zygotehaasnobrain/Shutterstock; 8 (LC) swakoppphoto.com/Shutterstock, (BC) hammett79/Shutterstock; 9 (LT) oksana.perkins/Shutterstock, (TC) Eric Wang/Shutterstock, (RB) stock_shot/Shutterstock; 10 (LB) robert cicchetti/Shutterstock; 11 (RC) ChameleonsEye/Shutterstock, (BC) Serguei Koultschitskii/Shutterstock, (RT) Dennis W. Donohue/Shutterstock; 12 (LB) © Arco Images GmbH / Alamy, (RT) jennyt/Shutterstock; 13 (RT) Cathy Keifer/Shutterstock, (RC) Shigeki Iimura/Minden Pictures, 17 (RT) © Warren Photographic; 18 (LB), 19 (RT), 20 (RB), 21 (LB, BC, RB) Zoological Society of San Diego; 19 (R) Mrs_ya/Shutterstock, (RT-BG) fotohunter/Shutterstock; 20 (LT, LC) Condor 36/Shutterstock; 31 (RT) alvie_alive/Shutterstock.

Special thanks this month to Dr. Stephen Secor, herpetologist, of the University of Alabama, for teaching us about python insides!

Printed in the United States of America

From time to time, Ask mails to subscribers advertisements for other Ask products, or makes its subscriber list available to other reputable companies for their offering of products and services. If you prefer not to receive such mail, write to us at P.O. Box 807, Peterborough, NH 03458-0807.

1st Printing Quad/Graphics Midland, Michigan April 2015

Is it time to renew?

www.cricketmag.com

1-800-821-0115



Suggested for ages 7 to 10.



page 15

Departments

2 Scoops

4 Nestor's Dock

28 Contest and Letters

32 Ask Jimmy and The Bug

33 Mighty Math

back cover: Marvin and Friends



page 23



page 8

CONTENTS



page 12

Features

6 At the Animal Clean-Plate Club
by Alison Pearce Stevens

14 How to Swallow a Crocodile
by Nicole Gill

18 Something New at the Zoo
by Elise Newman and Patricia Newman

22 The Very Hungry Tiger Shark

24 You Eat What?
by Nosy Newsie



page 25



page 20

SCOOPS

by Meg Moss



No Really, I'm a Caterpillar!

Deep in the Amazonian rain forest a tiny baby bird waits for its dinner. Bright orange downy feathers tipped with white cover its body. It wags its head slowly back and forth. Soon Mama returns with a tasty bug. The drab gray parent flies off for another treat, and the baby returns to wagging its head. What's going on? Scientists don't know much about these shy birds, called cinereous mourners. But they think the chicks are born looking—and acting—like the poisonous orange caterpillars of the flannel moth. This disguise might trick predators into leaving the chicks alone. When it's ready to fly, the baby will shed its festive feathers and grow a dull gray set.

You can tell the difference between bird and caterpillar, but to a hungry predator they look too similar.



This knife, lost by an ancient hunter, is one of many items uncovered by Norway's melting glaciers.

LOST AND FOUND

Have you ever lost a mitten in the snow? Well, the Vikings did too—and now they're showing up again as the climate warms and melts ancient glaciers. As glaciers melt, hundreds of well-preserved items—some from the Stone Age—are tumbling out of the ice,

to the delight of archaeologists. Most are everyday tools and bits of clothing: walking sticks, knives, mittens, shoes, arrows, even skis made of wood and bone. Some have been in the ice for 7,000 years. Archaeologists are excited by the finds, as the ordinary things



Ghost of the Deep

What lurks in the deepest, darkest ocean? Fish that look like ghosts! A robot submarine exploring the deep ocean of the Mariana Trench has found what may be the world's deepest living fish, 5 miles (8 km) below the surface of the Pacific Ocean. Scientists believe the nearly see-through creature is a type of snailfish, which live only in the ocean's deepest trenches. The fish's delicate fins resemble wings, and its flat, eel-like tail moves it gracefully across the seabed. And it has a snout like a cartoon dog. It's even more unusual on the inside—its cells are filled with a special chemical that keeps them from being crushed by the weight of the water above them.

This fragile-looking fish can withstand the weight of 5 miles of water above it.



that prehistoric people owned don't often survive, and they can tell us a lot about how ancient people lived. In fact, so many ancient items are turning up as glaciers around

the world melt that a whole new science called glacial archaeology has sprung up to study them.

How did the person who lost this ski get home with only one?

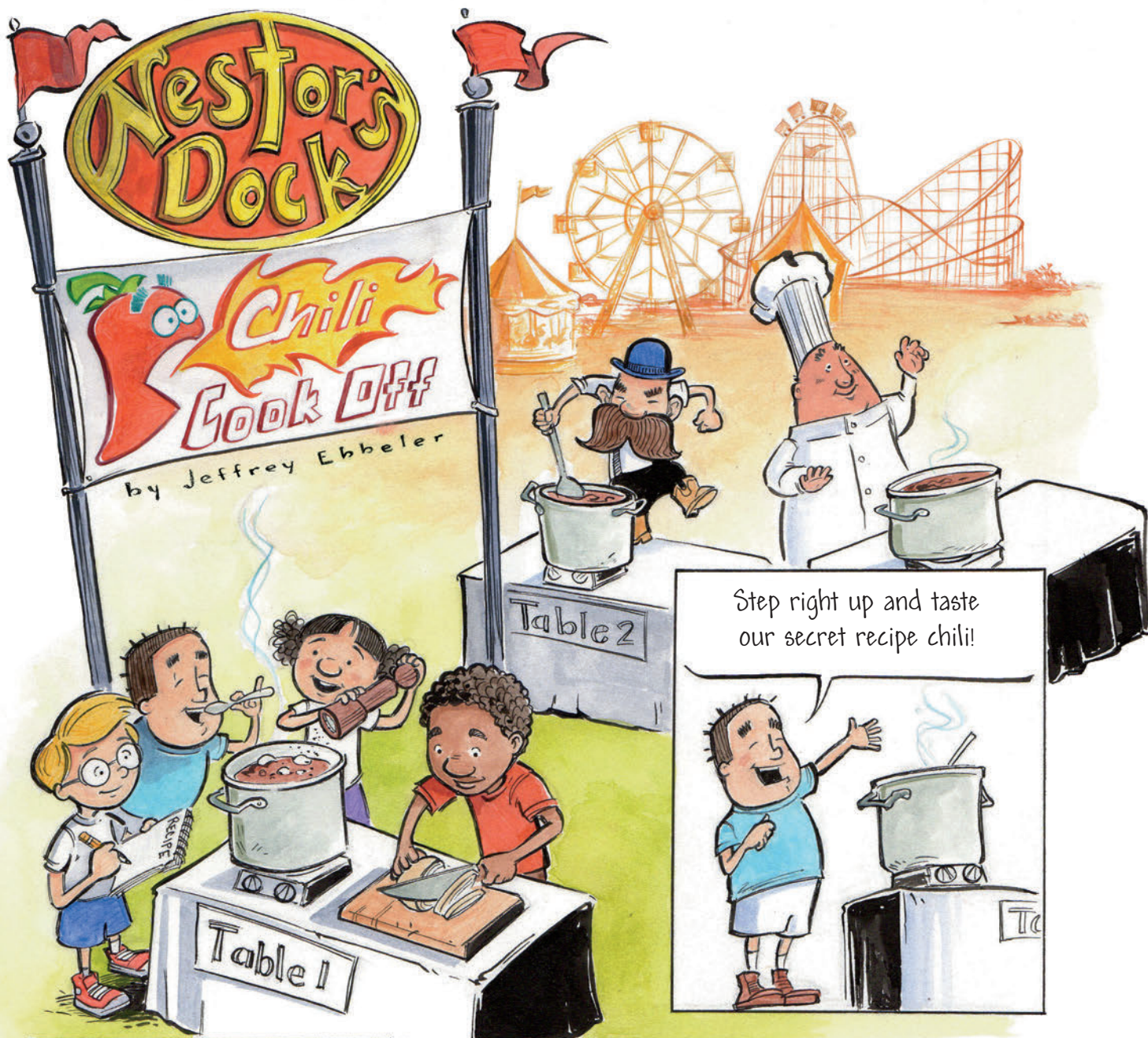


Need a Charge? Step On It!

Some clever engineering students have come up with a new way to use the energy of your own walking to charge cell phones and other devices. The trick is a very thin dynamo, like the kind in a crank-powered flashlight. But this one sits in a flat pad you put in your shoe. As your heel strikes the pad with each step you take, it generates a little pulse of electricity. A wire connects the pad to a small battery pack on your shoelaces. When it's time to recharge your phone, just slip the battery pack out of its case and plug the phone into it. The inventors estimate that a one-hour walk will generate about two-and-half hours of talk time.

Can't stop! Gotta talk!





Not bad. It could use a pinch of salt.



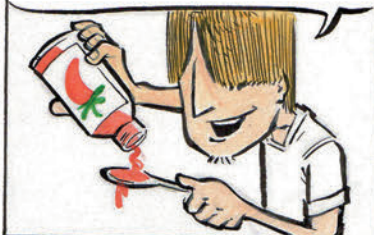
That's way too spicy.



I don't eat anything with meat in it.



No way, it needs hot sauce.



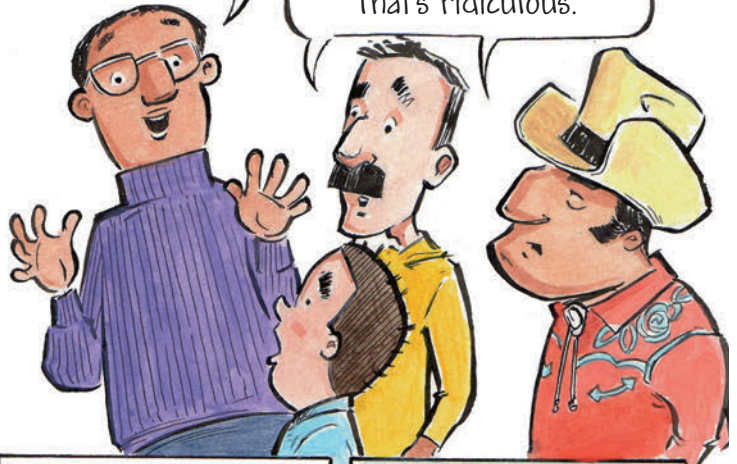
I prefer Arizona style with potatoes and green chilis.

In Texas we don't use beans.



In Cincinnati we put chili on spaghetti noodles with raw onions, beans, and a big mound of cheese on top.

That's ridiculous.



I don't like chili.
Do you have mac
and cheese?

No.



How about
chicken nuggets?

No.



I guess no one likes
our secret recipe.



Well I think it's fantastic!

Best chili ever!

Might need a pinch of salt.

NO! It's PERFECT!



At the Animal Clean-Plate Club

by Alison Pearce Stevens, art by Dave Clark

Do you have a favorite food?
Turn your nose up at anything new?
You're not alone.



There are plenty of picky eaters in the animal kingdom—and plenty of adventurous ones too! So how do animals choose what to eat?

For a mouse wandering around the forest, dinner might be seeds, or berries, or mushrooms, or beetles—whatever it can find on the forest floor. Eating a mix of food is a good strategy. It makes it easier to get all the protein and energy and vitamins an animal needs.

And if an animal is willing to eat different things, it's less likely to go hungry. No berries today? Try a nice root! Still, there are some things a mouse won't eat. Wood, crocodiles, and poisonous mushrooms are never on a mouse's menu.





Most animals, like the mouse, aren't too picky or too adventurous. They eat different things, but mostly stick to their favorite foods, suited to their needs and where they live.

Mice are foragers—they wander around and eat what they find. Berries are a favorite.



Daily Specials



Many animals specialize a bit—they prefer to eat mostly meat, or mostly plants, or mostly insects. Animals that eat meat are called carnivores. But as long as it's meat, they will eat just about anything they can catch with their sharp claws and teeth. Since meat is easy to digest, carnivores have simple digestive systems. Of course, catching a meal can be hard work—no animal wants to become another one's lunch. So meat eaters have to be fast and strong, and they often go hungry.

Herbivores, on the other hand, eat plants. Some eat only a few kinds of plants, but others will munch on anything green. Plant eaters have big, flat teeth for grinding up tough stems. Their long guts are full of special bacteria to help them digest tough plant fibers. Some, including cows, have several stomachs. Cows chew and rechew their grass many times to completely digest it.

LION



You can often tell what an animal eats by its teeth.

Carnivores' sharp, pointy teeth are good for catching and slicing meat.

ZEBRA



Herbivores have broad, flat teeth for grinding up plants.

And cupcakes!



BADGER



Omnivores have a mix of different kinds of teeth.

Then there are the omnivores—they'll eat both meat and plants, and other things like insects and honey. Bears are omnivores—and so are we.

In a balanced ecosystem, there's an eater for every available kind of food. Sometimes, what an animal eats depends on who else is living in the same area. Small South American hoary foxes share a forest with larger maned wolves and crab-eating foxes. The big wolves and foxes hunt for crabs and mice. The smaller foxes can't compete, so they have learned to eat termites and fruit instead. This lets them share the forest with their larger cousins.



Bears eat berries in the spring, fish when the salmon run, nuts in the fall, and nothing all winter, when they're hibernating.



I found this delicious nut just lying on the ground!

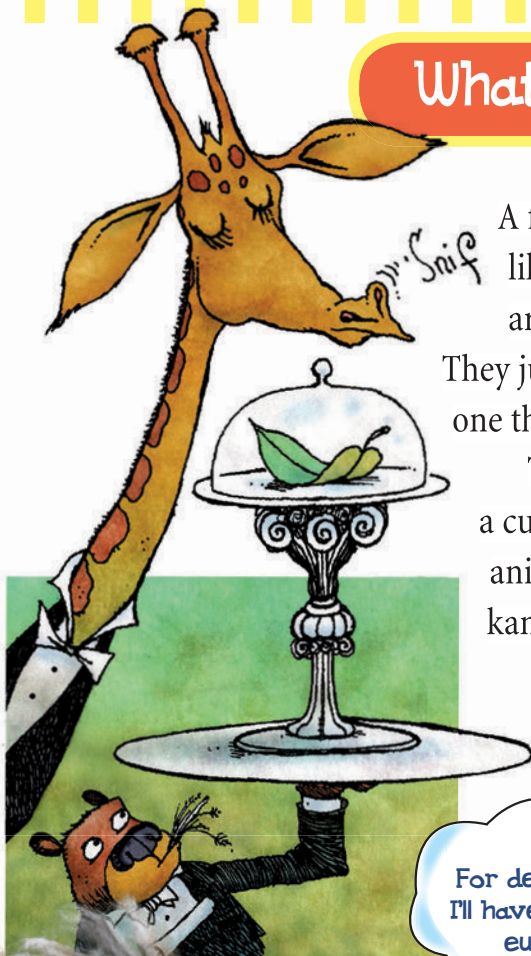
Squirrels do love nuts, but they also eat fruit, mushrooms, and tree buds.



I'll trade you that enormous nut for 10 of mine!



What Picky Eaters Pick



A few animals, like some people, are picky eaters. They just like to eat one thing.

Take the koala, a cuddly Australian animal related to kangaroos.

Koalas live in eucalyptus trees, and all they eat for breakfast, lunch, and dinner are eucalyptus leaves.

Eucalyptus leaves are not very nutritious. They are also full of a strong oil that smells like cough drops. But koalas don't mind. They have evolved an ability to digest the eucalyptus oil, so they don't get stomach-aches. And since other animals avoid eucalyptus, the koalas have it all to themselves. They don't need to be fierce or fast to get a meal. That's a good thing—the leaves don't have much energy, so neither do the koalas. They spend 18 hours a day sleeping and digesting.

We usually think of picky eaters as demanding only the best or most tasty food. But among animals, the picky eaters often eat what other animals don't want. That means they can have all that food for themselves.

If you eat the same food all the time, you can be pretty sure it's safe and won't make you sick.

Animals that eat just one

Hmm...tastes like cough drops.



Koalas are not bears—they're marsupials, like kangaroos, with pouches to carry their young.

thing can develop mouths and claws shaped to get that food very efficiently. But if you only eat eucalyptus, you need a lot of it! Picky eaters often require lots of space to graze in.

Being too picky also has risks. If a tree disease or insects wiped out the eucalyptus trees, the koalas might go hungry.

Beautiful monarch butterflies are picky eaters too. Monarch caterpillars feed only on milkweed, which is full of poisonous white sap. But the poison doesn't hurt the caterpillars—it protects them. Birds quickly learn to leave the bad-tasting black-and-yellow caterpillars alone.

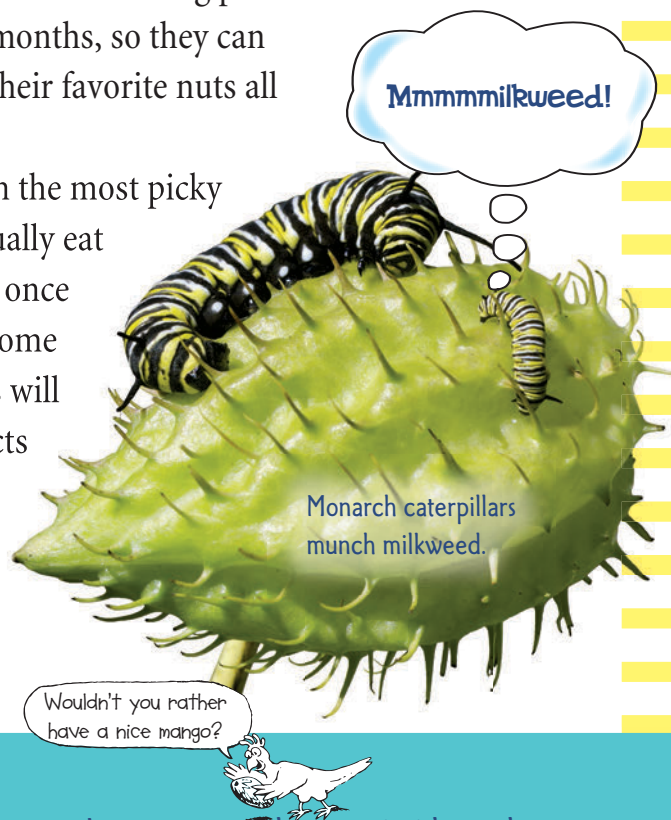
Because milkweed protects their caterpillars, monarchs only lay eggs on milkweed plants. And that can be a problem—as milkweed gets harder to find, fewer young monarchs are born.

Picky eaters will often go to great lengths to get their favorite food. Clark's nutcrackers are birds that are nuts for pine nuts. If they collect more nuts than they can eat, they hide them for later. Nutcrackers can remember their hiding places for up to nine months, so they can munch on their favorite nuts all year round.

But even the most picky animals usually eat other foods once in awhile. Some nutcrackers will nibble insects or even toads if they find them.



The long, sharp beak of a Clark's nutcracker is just the right shape for digging out pine nuts.



Monarch caterpillars munch milkweed.

I Love Leftovers

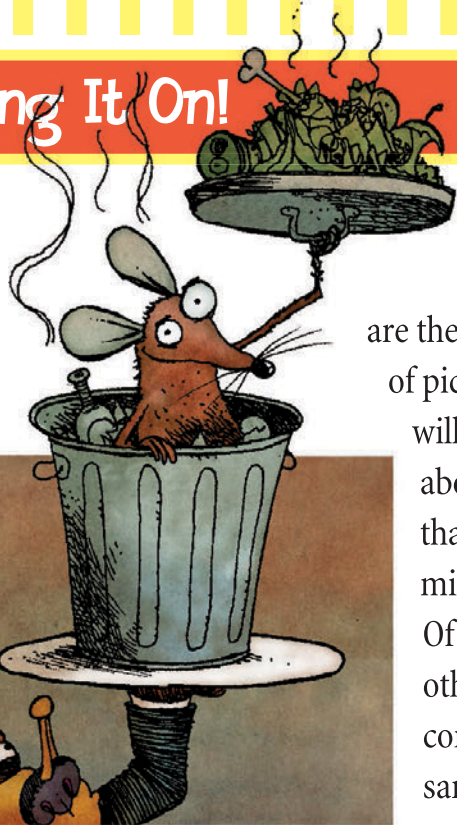
Vultures are picky eaters in a strange way: they don't care what they eat, as long as it's been dead awhile. Vultures are scavengers, animals that like to eat what other animals leave behind. They play an important role in cleaning up nature's messes. Vultures are well adapted to their decaying diet. Ever smelled a dead animal?

It stinks! Those smelly gases guide vultures right to the carcass. A curved beak helps them tear in



to get at the meat inside, and a bald head helps them keep clean. Rotten meat is crawling with germs that would make most animals sick. But a vulture's stomach is full of super-strong juices that kill nasty germs. And their intestines host microbes that knock out any germs that survive the acid.

Bring It On!



Some animals are the opposite of picky. They're willing to try just about anything that looks like it might be edible. Of course, many other animals are competing for the same food. But if you're willing to eat anything, you

Every meal should be an adventure!



can always find a meal.

Adventurous eaters can be carnivores, herbivores, or omnivores. Some, like the monkfish, aren't very adventurous in other ways. The odd-looking monkfish lies on the ocean floor waving around a long, fat spine that looks like a worm.

When a fish, squid, or other critter swims up to take a nibble, the monkfish opens its enormous jaws and sucks the visitor down—whatever it happens to be.

All the better to eat you with, my dear.



Monkfish lure their dinners in by pretending to be dinner themselves.



Try It, You'll Like It!

Just like humans, within any species, some individuals are more picky than others. Clark's nutcrackers mostly eat pine nuts, but some are happy to try a bug or frog once in awhile. Others are more cautious and stick to nuts. Even among raccoons, some are more choosy about their trash. This range of eating styles is good for the species. Picky eaters are less likely to eat something dangerous, keeping the species safe. But their adventurous brothers and sisters just might discover something delicious everyone can share.

The praying mantis is an insect ambush hunter. Perching on a flower, the mantis looks like part of the plant. Large eyes track flies, bees, and wasps that come to sip nectar. When it spots movement, it darts out lightning-fast legs covered with spikes. Hungry mantids aren't choosy—they have been known to catch and eat small lizards and even hummingbirds. Sometimes, they even eat each other.

The “try anything” approach to eating can be risky—there’s always a chance that your meal may be poisonous or fight back. So adventurous eaters need to be tough, with mouths, stomachs, and claws that can handle a wide variety of food. And their gut bacteria need to be strong.

But adventurous eating has many advantages. For one thing, it means you can live in a lot of different places—including cities! Some of the most successful city animals, such as rats, pigeons, and raccoons, are naturally curious and daring eaters. This has made it easy for them to move into cities, where they soon learn to like people food and trash.

Please Don't Eat the Daisies

Adventurous eaters can sometimes be a big problem. American bullfrogs, for example, will eat any critter they can fit into their mouths. Snails, insects, crayfish, spiders, leeches, tadpoles, and smaller frogs are all on the bullfrogs’ menu. And that’s not all! They will even eat mice, birds, bats, and small turtles. In fact, bullfrogs have been found to eat 82 different kinds of animals.

This mantis has nabbed a passing cricket.

We're praying it doesn't spot us!



Although such a varied diet helps the bullfrog survive (unless, of course, it is eaten by another bullfrog), it’s bad news for other creatures when the bullfrogs move in.

For every animal in every place, there’s a different best way to eat.

For some, it’s better to corner the market on one favorite food. For others, it pays to eat what no one else wants, or to eat anything and everything. There are plant lovers and meat lovers and those that like both. But they all agree, the best time of day is—dinner time! 🦋

Sorry, I couldn't resist.



American bullfrogs are the largest frogs in North America, with an appetite to match.

The best time of day is dessert!



How to Swallow

For extreme eating, snakes may take the prize.

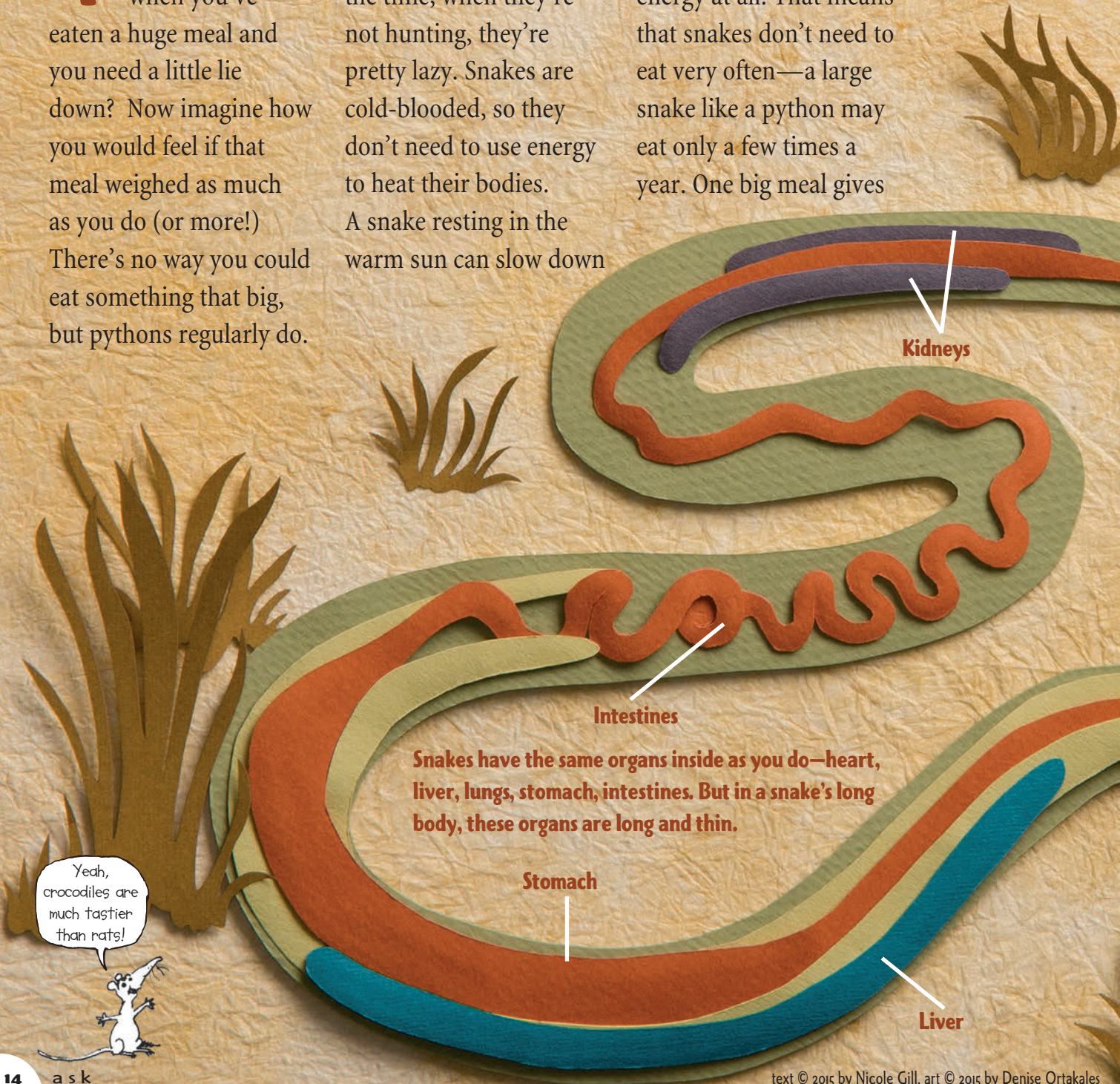
We must be going now!



You know that feeling you get when you've eaten a huge meal and you need a little lie down? Now imagine how you would feel if that meal weighed as much as you do (or more!) There's no way you could eat something that big, but pythons regularly do.

Snakes are creatures of extremes. Most of the time, when they're not hunting, they're pretty lazy. Snakes are cold-blooded, so they don't need to use energy to heat their bodies. A snake resting in the warm sun can slow down

it's breathing and heart-beat so it uses almost no energy at all. That means that snakes don't need to eat very often—a large snake like a python may eat only a few times a year. One big meal gives



Snakes have the same organs inside as you do—heart, liver, lungs, stomach, intestines. But in a snake's long body, these organs are long and thin.

Yeah, crocodiles are much faster than rats!



a Crocodile

by Nicole Gill

art by Denise Ortakales

it enough energy to last many months.

This trick helps snakes survive in places where food is scarce. And it keeps them safe—the less often they have to go out to hunt, the less risk

they run of being eaten themselves. But when it's time for a meal, snakes rev themselves up, putting on a burst of speed to catch unwary creatures.

A python's sharp teeth angle backward to help move food into the stomach.

After a python catches and kills its prey—maybe a careless crocodile—comes the first eating challenge: how to swallow it?



Pythons coil themselves around their victims and squeeze until the prey's heart stops.



Snakes have evolved flexible jaws to swallow large prey. A python's lower jaw is connected by a stretchy tendon at the bottom. This allows the python to open its mouth extremely wide.

Pythons are big snakes. Some can reach 30 feet (10 m) long and weigh 200 pounds. But with no hands and small teeth, they can't tear apart their food. Instead, they stretch their jaws wide and slowly swallow their dinners whole.

Powerful muscles move the meal along. And inside, the python's whole body changes.

Breaking down a crocodile is hard work! The heart and liver nearly double in size. Body-building cells multiply like crazy. The stomach and pancreas pour out digestive juices.

In fact, a python digesting can burn 20 to 45 times more energy than when it's resting. That's like the difference between a sleeping horse

Inside the snake, powerful stomach acids break down the meal to store as fat in the snake's body. The snake will use this energy for months to come.

Muscles constrict to push the food along.

Anything the snake can't digest is expelled as a small pellet through an opening near the snake's tail.

And I thought Plush had a big mouth!

Hey!



and a horse running a race—but in a snake, all the action happens on the inside.

The digestive frenzy continues for a week. Then the python's body slowly returns to normal.

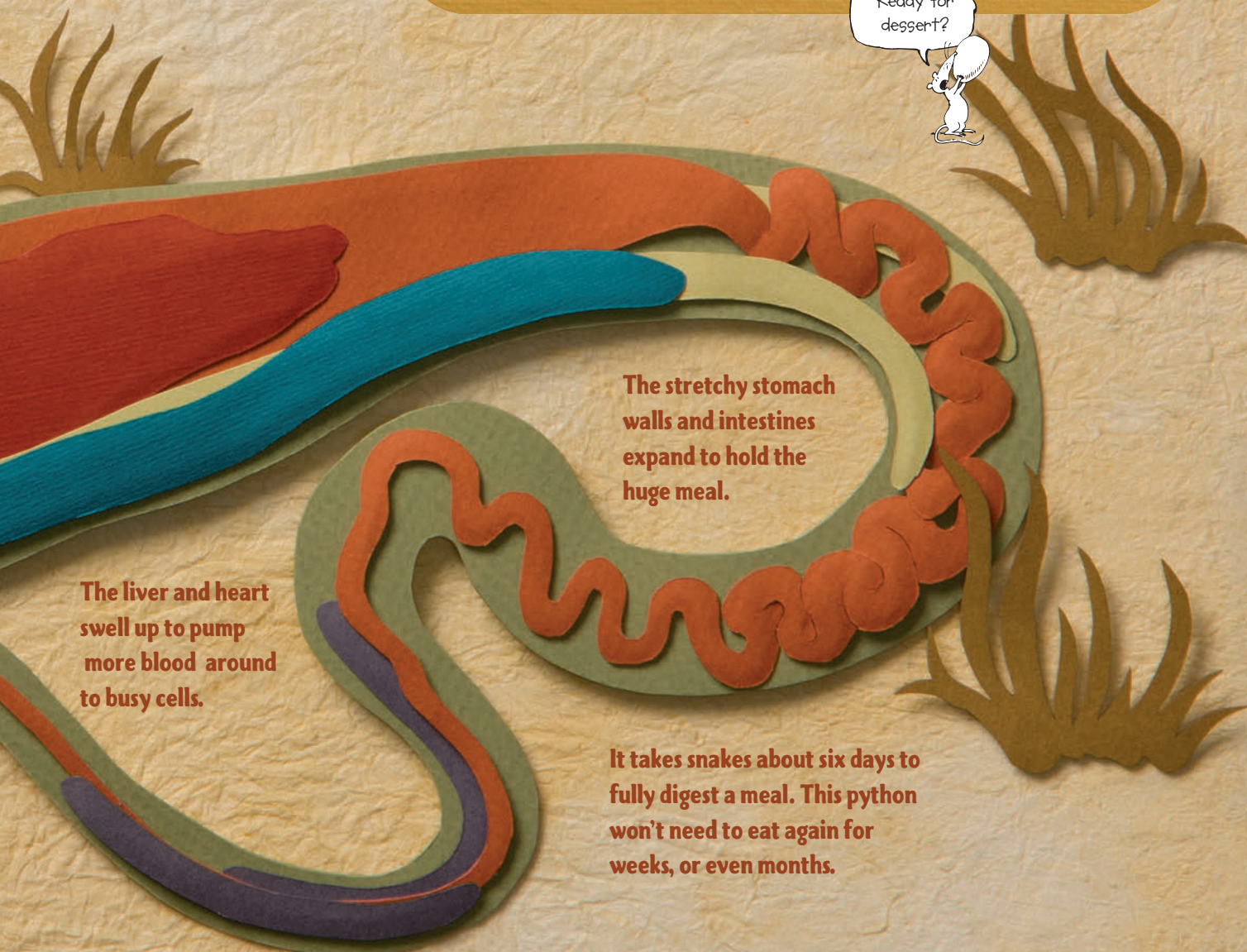
So never challenge a python to an eating contest—it will beat you (no hands) down! 🐍

Egg Swallowers

Pythons aren't the only great gulpers. For their size, the small egg-eating snakes manage something almost as impressive. There are 12 known species of egg-eating snakes, most in Africa. They swallow the eggs of birds and reptiles that nest on the ground. A row of sharp spines on the inside of its backbone near the throat slices open the eggshell, allowing the snake to suck out the egg's insides. When it's done, it spits out the shell and moves on.



A snake's hard scales are attached to very stretchy skin underneath.



The stretchy stomach walls and intestines expand to hold the huge meal.

The liver and heart swell up to pump more blood around to busy cells.

It takes snakes about six days to fully digest a meal. This python won't need to eat again for weeks, or even months.

Something New

By Elise Newman and
Patricia Newman
and Zia

at the Zoo




It's lunch time for pandas at the San Diego Zoo. A group of black-and-white bears crunch eagerly on heaps of tasty bamboo, a tall grass with long green leaves. Pandas love to eat bamboo. But one bear has something different. He's munching on...a hunk of bread?

Gao Gao is an old man by panda standards. His teeth are bad, so he has trouble chewing tough bamboo stalks. When he started to lose weight, zoo scientists decided they needed to help. Their solution? Grind up the tough bamboo to make a

special healthy bread just for pandas—panda bread!

Dr. Jennifer Parsons is a nutritionist at the San Diego Zoo. It's her job to make sure that the

Gao Gao is old for a panda, but he still loves to play!



Oh, that bamboo
looks so tasty!

*What do you do when your
panda can't chew bamboo?*

animals at the zoo eat right. We went to talk to her about Gao Gao and his special bread.



Zia: What does Gao Gao's name mean?

Jennifer: Gao means *big* or *tall* in Chinese. The doubling up is like adding a *y* to someone's name to say "Jenny" instead of "Jen."

Zia: Can you tell us a little about him?

Jennifer: Gao Gao was orphaned in the wild. He's been with us for 12 years. Gao Gao is one of the oldest giant pandas alive. Unfortunately, he has pretty bad teeth. He has visited the zoo dentist many times, but he's a trooper! Gao Gao has fathered five cubs, bleats at his keepers to beg for back scratches, and races his keepers up and down the corridors in his bedroom.

Zia: He bleats?



Jennifer: It's a high-pitched sound you wouldn't expect to hear from a bear. When he's mad, he makes a honking sound.

Zia: Are pandas real bears?

Jennifer: Yes, but giant pandas are a puzzle. Most bears eat all kinds of food. They stuff themselves when food is easy to get and hibernate when food is scarce. Giant pandas eat mostly bamboo, which grows all year round in China, so pandas don't need to hibernate.



It's not a toothpick, it's my lunch!



Giant pandas eat the leaves first, then peel and eat the chewy stalks.

Oddly, giant pandas don't have the right stomach enzymes to digest bamboo. Their bodies are built to eat meat, but instead they eat grass.

To get enough nutrition, they have to eat for 14 hours a day and sleep a lot to conserve energy.

Zia: So why do they eat bamboo?

Do they like it?

Jennifer: They do!

They eat the leaves and the woody stalks. Did you know giant pandas are very choosy about their bamboo? Each stalk has to pass the "sniff test." If the stalk smells yummy, they slide the bamboo through their mouths to strip off the leaves, then eat the leaves like an ice cream cone. When the leaves

are gone, they use their sharp front teeth to strip off the tough outer skin of the stalk—like peeling a banana—to eat the soft insides.

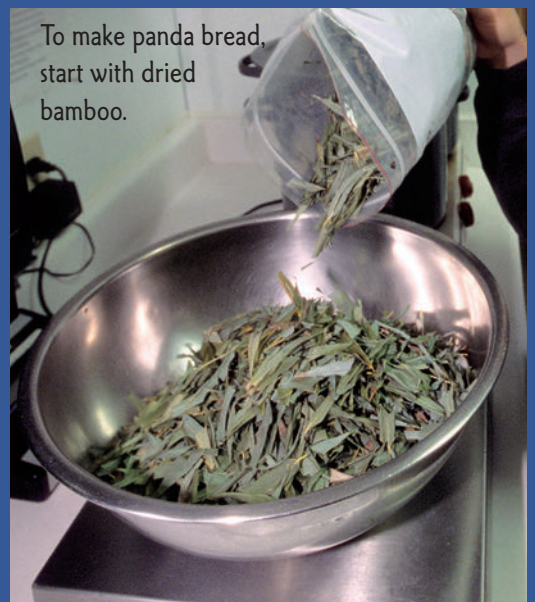
Zia: Is bamboo all they eat?

Jennifer: At the zoo pandas will sometimes eat carrots, yams, apples, and zoo biscuits we make for leaf-eating monkeys. Gao Gao eats these things too. He also still eats 15 to 30 pounds of bamboo every day, either in thin leafy pieces or in panda bread. No chewy stalks for him! Sometimes he lies on his back and licks the bread like a Popsicle.

Zia: What's in panda bread?

Jennifer: Mostly, bamboo. Zoo scientists invented panda bread in 2000 to help Shi Shi, another giant panda with bad teeth. Many different people at the zoo help to make panda bread.

To make panda bread, start with dried bamboo.



The gardens grow bamboo for all our pandas. Then the nutrition department, animal care staff, and volunteers strip bamboo leaves off of the stalks. The leaves are dried and crumbled to make a kind of flour. Panda keepers mix the leaf flour with crumbled biscuits, hot water, and gelatin until it is like wet sand. Then they roll the dough into balls or cakes and steam it for 50 minutes. Gao Gao loves a little honey or applesauce on the bread too.

Zia: Does the panda bread keep Gao Gao healthy?

Jennifer: The answer is in Gao Gao's poop. Zookeepers study it every day. It should feel firm and look like a football. Runny poop is a sign of trouble. We weigh Gao Gao's poop to be sure he's making the right

amount, about 20 pounds a day. We also weigh Gao Gao regularly. Good news! Gao Gao loves his panda bread, and it's keeping his weight at a nice 175 pounds and his poop healthy.

Zia: Do any other pandas eat panda bread?

Jennifer: No, just Gao Gao. Healthy giant pandas should eat bamboo.

Zia: What else would you like everyone to know about pandas?

Jennifer: Wild pandas need a lot of space, so the best way we can help them is to protect their habitats. This will also protect many other wild animals that share that space.

Zia: Thank you for talking with us! Can I try some panda bread?

Jennifer: Panda bread is for pandas. How about a nice apple? 🍏



Mix with biscuit, gelatin, and water.



Bake



Time for lunch!

My Show-and-Tell Project

Which of these items was **Not** found in a **Shark's Stomach**?

porcupine



Chicken coop with chickens



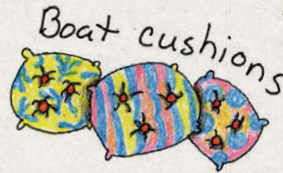
Rain Coat



Oil can



Suit of armor



Boat cushions



Books



Cannon ball



Bag of money



A mermaid with a warthog face and bat wings



Rubber boots



Cans



Fur coat



Tires



Antler



A goat



Baseball



Jewelry



License plate

I'm impressed!



It was the tires, right?



Answer: Mermaids aren't real, so even a tiger shark can't eat one.

The Very Hungry Tiger Shark

art by Heather Hopp-Bruce

OK, I have eaten some funny things. But it's not my fault!

See, we tiger sharks are predators. And we're really good at it! We'll eat fish, seals, turtles, jellyfish, squid, crabs—pretty much anything we can catch. And not much escapes these teeth, let me tell you.

The secret of our success is: chomp first and ask questions later. Other sharks are more choosy, but if a tiger shark sees something in the water—BAM, gulp! If it moves, eat it!

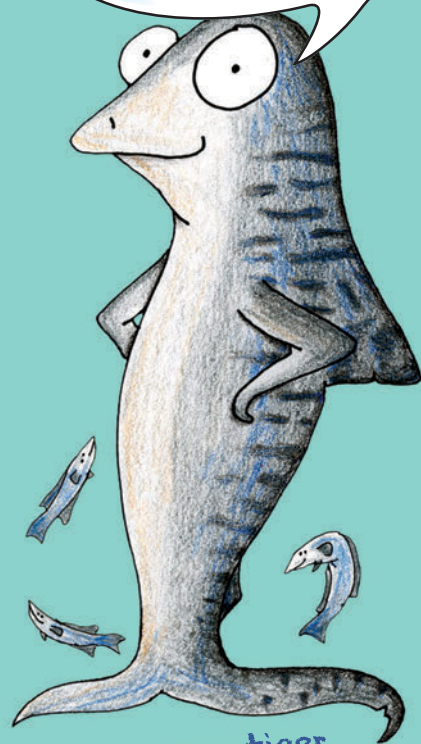
This strategy has kept us at the top of the food chain for millions of years.

But now it's causing us a bit of a problem. That's because frankly, these days the ocean is full of weird stuff! Sometimes when I go after a shiny fish, it turns out to be a license plate. Bleh! Too late, I've already eaten it.

But really, what's a license plate doing down here??? If it's in the ocean, it should be something I can eat!

I'm just hunting in the stupendously

Hi! Tiger Shark here. I just want a chance to set the record straight.



efficient way tiger sharks always have. Please, instead of making fun of us for eating weird stuff, get all that weird stuff out of our lunchroom! If you keep your boots on land, I promise you, I won't eat them.

You Eat What?

art by Rupert van Wyk

This week on Nosy News we're speaking with some animals with pretty weird tastes in dining. Hold onto your menus, we're going in!

Antlers

Mr. Porcupine, I see you're about to dig into—what is that? An antler?

Yup.
Mmm—mmm! I love these things. Talk about crunchy! And Mom says they're good for me too, full of protein and minerals.

I just hope the deer was done with it.

Oh, sure!
Deer and elk drop these things all over the place, grow a new set every year! I mean, if we didn't eat them, the forest would be knee deep in antlers. So we're doing everyone a favor, really.

Rocks

Now here's a speedy eater, look at her scarf up those grains and grubs! Whoa, slow down, you just swallowed a rock!

Oh, I meant to do that. All birds eat rocks, don't you know? Got no teeth! So we keep rocks in a little muscle pouch called a gizzard to mash up tough stuff before it gets to the stomach. Helps the digestion!

Well, that's....very efficient.

Can't talk, eating.



Skin

Sir Crucifix Toad, I hear you've come up with a new way to catch flies. You trap them with your skin, is that right?

Corrrrect. I thought of it myself. My skin oozes glue, so when a bug lands on me, it sticks. Then I shed my skin and eat it up, bugs and all! Mmmm, crunchy and chewy. And I get back all the protein and stuff I used to make the skin!



That's a good trick, skin recycling! I think I'll try it!

Go green!



More Rocks

Now why are YOU eating rocks? You aren't a bird, and you have plenty of teeth! Do tummy rocks help you stay under water? Do they help you digest? Or are you so greedy you swallow them by mistake?

Hey! Just for that, I'm not going to tell you.

There you have it, folks. Why do alligators eat rocks? Still a mystery.



Dung

You look like you've got a lot of dinner there—what is that delicious morsel?

Dung.

Whoa! That's poop! You're really going to eat that?



Why not? I'm a dung beetle. Dung is great stuff! It's already half digested! Less work for me. Plus it comes in this handy moldable form, and it's everywhere! And no one else seems to want it! So I take it home to feed the family. Yummy! Gotta go, lots more to clean up!

Well—the world would certainly be a messier place without you.



Dirt

Now here's a big eater with a big appetite for—cave walls?

Salt is kind of hard to find in the forest. But we discovered this great cave where there's lots of salt in the walls. Mmmm, that really hits the spot! We've been coming here for generations. My grandad chewed out a whole room! I also know a great place to get clay, if you have a tummy-ache or need to get rid of parasites tickling your insides. Don't you humans do that? Oh, that's right—you put your clay into bottles and drink it. Whatever!



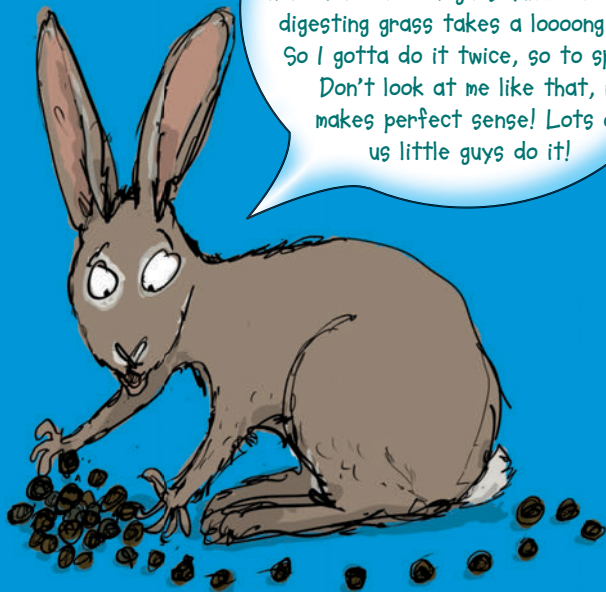
Well, thanks, don't mind if I do.



Your Own Dung

Hey,
you're not a
beetle. Why are YOU
eating your own poo?

It was good the
first time, why not eat it
again? Seriously though, look at
this body—I don't have space in
here for a lot of guts. And believe me,
digesting grass takes a loooong time.
So I gotta do it twice, so to speak.
Don't look at me like that, it
makes perfect sense! Lots of
us little guys do it!

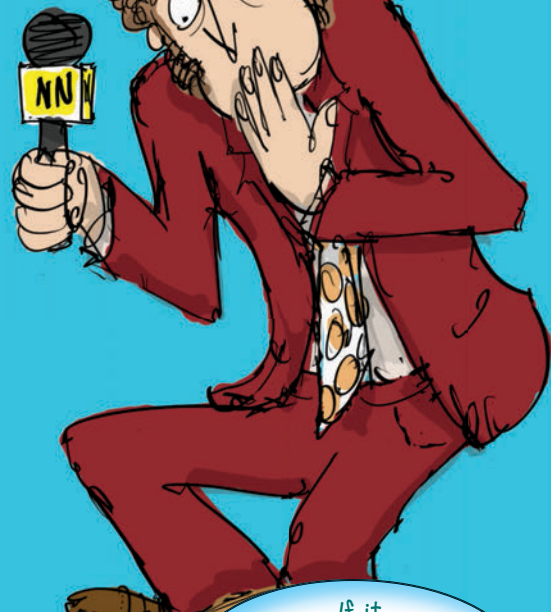


I guess
when you put it
that way. . .



Vomit

I suppose that goes
for you too?



If it
was good enough to
eat once, it's good enough
to eat again!



Living Spiders

And finally, meet the
state insect of New Mexico,
the tarantula hawk wasp! Madam,
I see you eyeing that tarantula.
Are you going to eat it?



Heavens,
no! I'm going to paralyze it,
bury it, and lay an egg on it. When the
egg hatches, my little darling will burrow into the
tarantula and eat it up from the inside, leaving the
important bits for last to keep it alive as long as
possible. Then, out pops Waspy! It's the
least a mother can do.



Well,
there you
have it folks—
something for everyone
at the wild cafe. Now,
any takers for that
broccoli?



CONTEST and LETTERS

In our January issue we asked you to show us a fiery creature. We don't have room to print all the amazing entries, so we've put more on our website at askmagkids.com/contest.



Phendeer

Amelia B., age 11, Minnesota



Dragon of Fire

Ellen B., age 7,
Massachusetts



The Mighty Firehead Monster
Aditya V., age 7, Maryland

Dralospon

Sara S., age 11, California



Dear Ask,
Hello! How do video games affect your brain? I like reading the *Diary of a Wimpy Kid* series in bed. Is it possible to sleep for only 3 hours a day? How much does Watson read?

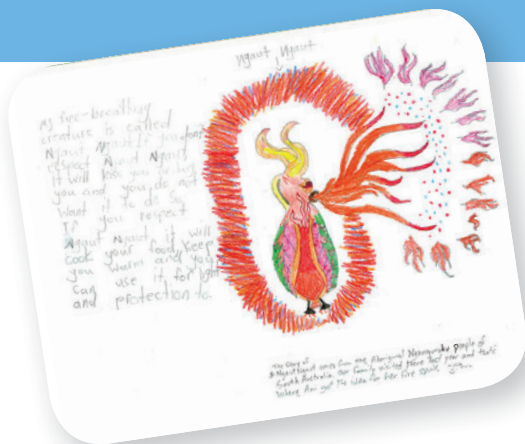
Sincerely, Akash M.,
age 9, New Jersey

Dear Akash,
I think video games mostly get a bad rap because they steal time away from other fun things like digging holes. But not getting enough sleep would definitely mess with your brain—brains need plenty of sleep to work properly. Though sometimes it is very hard to put my book down!

Watson

Dear Bone Pony,
Don't you LOVE fact books? They are the absolute best source of knowledge. If you sent me a choice of a car or 100 facts books I would choose the books!

Yours,
William H.
Burkina Faso



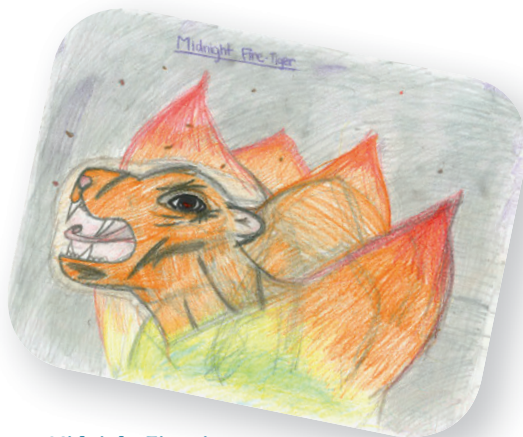
Ngaut Ngaut
Ani W., age 8, Iowa



Firephant
Ella D.



Incendia
Iris W., age 9, Iowa



Midnight Fire-tiger
Elizabeth B., age 10, California

Dear William,
How about a big fact book about cars? That would be fun. I love encyclopedias too. And the Internet is also full of surprising facts. For example, did you know that the Earth is actually shaped like a banana? Hmm...Maybe you should check that in one of your books.
Bone Pony

Hi Ask,
Do steep cliffs have gravity?
Sean H., Missouri

Dear Sean,
That's a really interesting question! I like the way you think. Everything has gravity, even cliffs. The reason you fall down past a cliff and don't stick to the side is that gravity is actually a

very weak force—it takes a moon-sized amount of matter for its combined gravity to be enough that you can actually feel it. If you fall off a cliff (but please don't!), the gravitational pull of the whole Earth below you is a lot stronger than the small pull of the mountain to the side, so you fall down.
So, anchor on! Your fellow climber,
Avery

CONTEST and LETTERS



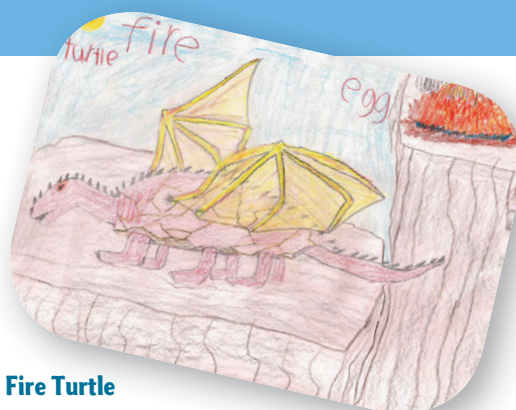
Fire Fox

Avery L., age 8, Louisiana



Flame Jellyfish

Jennifer I., age 9, Virginia



Fire Turtle

Nicholas H., age 10,
Rhode Island



Jules L., age 10, Indiana

Dear Zia,

Do you eat cupcakes every day?

Love, Bryce,

age 6, Washington

Dear Bryce,

I think about eating cupcakes every day, but Plush doesn't make them very often. That's OK, because then they are special! But sometimes I like to

mash my hay up into little cake shapes and pretend it's cupcakes. That's fun too. I call them cuphaycakes!

Your friend,
Zia

Dear Marvin,

Why do you like catsup so much? I like it because it's sooo sweet!

From Arielle, age 7, D.C.

Dear Arielle,

There are so many things to like about ketchup. It makes just about anything taste great. Plus, if Plush spells it "catsup" I can correct her and tell her it's spelled "ketchup," and if she spells it "ketchup," I can correct her and tell her it's spelled "catsup." It's one rule-breaking condiment!

Saucily, Marvin

May/June Contest

CRITTER CAKE

You may not know when your pet's birthday is, but that's no reason not to have a birthday party! For this month's contest, design a magnificent birthday cake just for your special friend or favorite wild animal, full of their (not your) very favorite things to eat. Keep the chocolate for yourself, and think, what would Fido really like? Send us a picture of the lucky birthday animal with his or her special treat, and we'll host a big party for them in an upcoming issue of *Ask*.



Contest Rules:

1. Your contest entry must be your very own work. Ideas and words should not be copied.
2. Be sure to include your name, age, and full address on your entry.
3. Only one entry per person, please.
4. If you want your work returned, enclose a self-addressed, stamped envelope.
5. Your entry must be signed or emailed by a parent or legal guardian, saying it's your own work and that no one helped you. For information on the Children's Online Privacy Protection Act, you or an adult can visit the Policy page at cricketmag.com.
6. Mailed entries must be postmarked by June 30, 2015. We will publish the winning entries in an upcoming issue of *Ask*.
7. Email scanned artwork (PDF, jpeg, or other standard file type) to ask@askmagkids.com, or mail to: *Ask* Contest, 70 East Lake St., Suite 800, Chicago, IL 60601. No faxes, please.

Dear Bot,

My favorite Christmas present was a programmable robot. I named him Beep. He can do a lot of cool things like tell knock-knock jokes and go on spy missions. I want to build robots when I grow up but I don't know how.

Robots Forever!

Joseph D., age 10, Minnesota

Dear Joseph,

Programming Beep is a great start! And don't be afraid to take him apart and tinker. (Don't tell him I said that.) You might also check out FIRST or Vex robotics clubs. Or start your own! Most important, just fool around and see where it takes you. That's how all great robots are born.

The future is ours! Bot

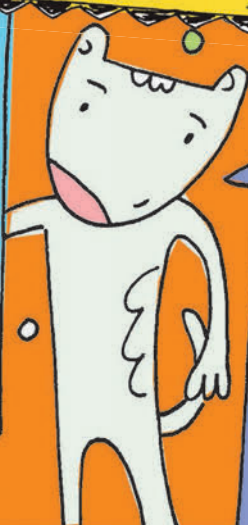


Send your letters to Ask Mail,
70 East Lake St., Suite 800, Chicago, IL 60601,
or email us at ask@askmagkids.com.

ASK JIMMY + THE BUG ?

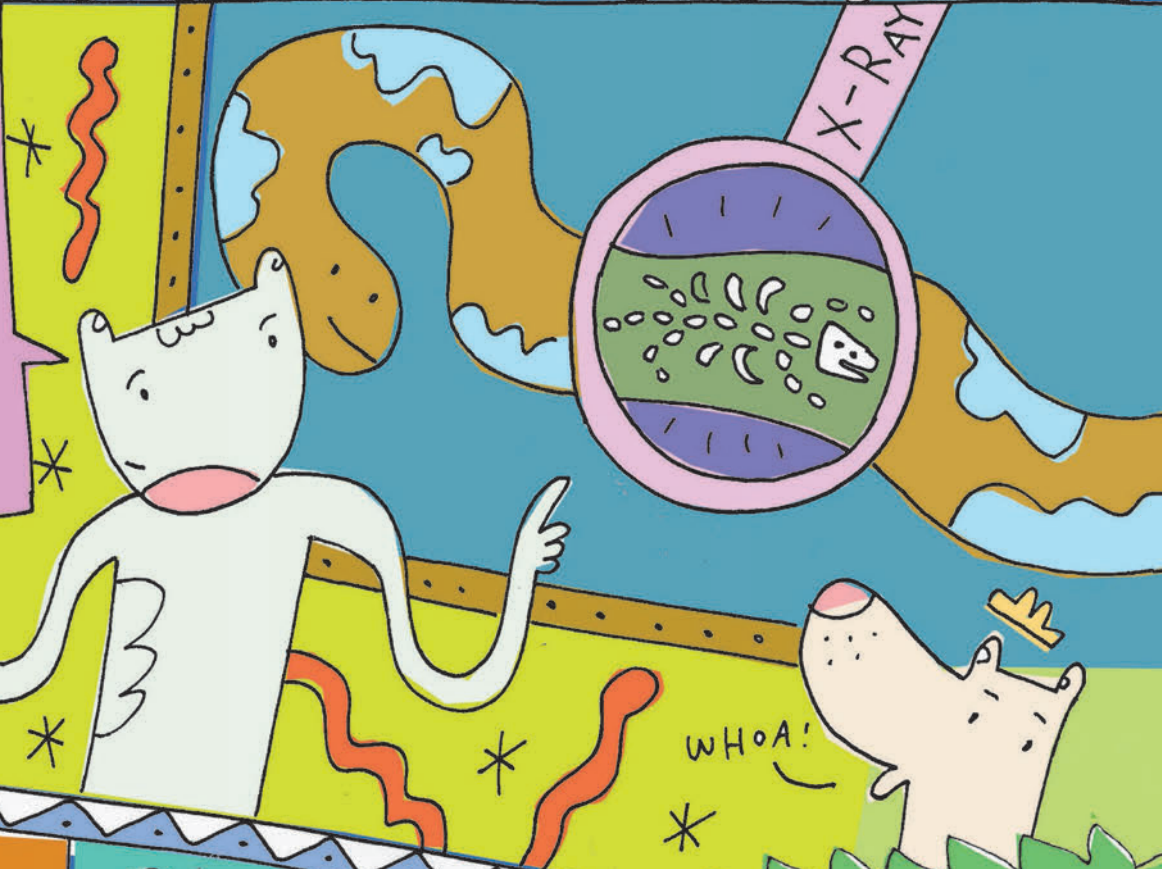
Hey Jimmy, Bhaskar J. asks,
"How do snakes poop?"

text by ellen braaf. art by dean stanton.



When snakes eat, everything they can't digest passes out as waste, just like in other animals. Snakes store their waste in a chamber called the cloaca, down near their tails. The cloaca holds both poop and pee, so both come out together through a small hole on the underside of the snake. A large movable scale called the anal plate covers up the hole, so it's hard to see—but it's there.

In people, the remains of a meal usually show up in poop within a day. In snakes, it can take much longer. Scientists X-rayed a python's stomach after it ate a rat. It digested its prey in stages. After two days, the rat's skull had been digested. In four days, its chest and front legs were gone. In six days, only a few small bits of bone and hair remained.



All the indigestible rat parts—mostly teeth and hair—pass into the cloaca and go out as a small pellet of poop. But snakes don't need to eat very often, so they don't poop very often either.

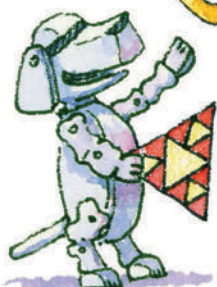


Hey, Kids!
Have any questions you want answered?

Send them to ASK,
70 East Lake St.,
Suite 800, Chicago, IL
60601, or send
them by email to
ask@askmagkids.com.



Bot's



MIGHTY MATH

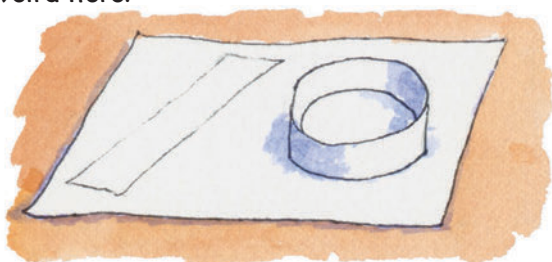
by Ivars Peterson

Magic with a Twist

A twist can turn a strip of paper into an amazing object.



Tape together the two short ends of a long strip to form a loop. You can see that the loop has an inside and an outside and two edges. Nothing weird here.



Try it again with another strip, but this time flip one of the ends over before taping the ends together. You end up with a twisty loop.

Use your finger to follow the edge. You find that you keep on going and going. This loop seems to have just one edge!



Now, use a pencil to draw a line down the middle of the strip—like a line that divides a road into two lanes. You end up going and going until you run into the line again where you started. The loop seems to have just one side!



Now use a pair of scissors to carefully cut along this line (you'll need to poke a hole to get the scissor tip through to start). What do you get? A single, longer loop, even though it looks like you somehow cut it in half.



This weird twisty loop with just one side and one edge is known as a Moebius strip. Magicians use them to play tricks on people. And you see it every day in the three bent arrows of the recycling sign. If you join the arrows to form a loop, the result is a Moebius strip.



