

Science

MASKS? MASKS

THE FACE COVERINGS ARE HERE TO STAY

BY APOORVA MANDAVILLI • ILLUSTRATION BY DIANA EJAITA



ALMOST A YEAR into this pandemic, most of us are tired of not seeing friends and family, of not being able to eat in restaurants and of not being able to go places without a mask. Things will get better soon — perhaps even by summer — but until most people are vaccinated, we will have to continue to be careful, and yes, that means still wearing a mask.

It's exciting that lots of people are now starting to be vaccinated, but the whole process is going pretty slowly. Most grandparents and parents should be vaccinated by the end of the summer. As for you, the vaccines are still being tested in 12-to-15-year-olds to make sure they're safe and keep young people protected. And at least one company has just begun a trial with younger kids, so most kids can hope to be vaccinated perhaps by the end of the year.

In the meantime, it's important for everyone to keep wearing a mask, because there's still a high risk of becoming infected and spreading it to others, says Angela Rasmussen, who studies viruses at Georgetown University. That can even be true if you're around someone who has been vaccinated. The vaccines are very good at preventing people from getting really sick, but not as good at preventing infections — meaning that people who have had the shot can still pick up the virus from you and give it to someone else, Rasmussen says. So even if your grandparents have been vaccinated, you should still consider wearing a face covering around them for now.

You may also have noticed that people are starting to wear two masks, one on top of the other, to create an extra layer against the virus. That's because there

are some new versions of the virus that seem to spread more easily. "That's really worrisome," says Helen Jenkins, who studies diseases at Boston University. Luckily, we can still use all the same methods that we've already been using to prevent the spread of the virus, Jenkins says. "But we just have to really make sure that we're actually using those methods and we're doing them well."

That means you will still need to wash your hands, stay at least six feet away from others and wear a mask. And remember, a simple cloth mask that you will wear all day and keep over your nose is better than a high-quality mask that you think is uncomfortable and try to pull off your face. "Find a mask that you like," Dr. Jenkins says. "We need to keep doing everything that we're doing to protect others." ♦

FOUND! A 2,000-YEAR-OLD CAT

BY TIFFANY MAY

THE IMAGE, stretching for 40 yards on a hillside in Peru, shows a creature with pointy ears, orblike eyes and a long, striped tail. It appears to be a cat lounging, as cats often do. Archaeologists stumbled across the faded etching — which experts say dates to 200 to 100 B.C. — last fall at a protected site known as the Nazca Lines. The catlike figure is the latest addition to the larger-than-life animal carvings previously discovered in the area, which include a hummingbird, a monkey and an orca. "It's quite striking that we're still finding new figures," says Johny Isla, Peru's chief archaeologist for the Nazca Lines.

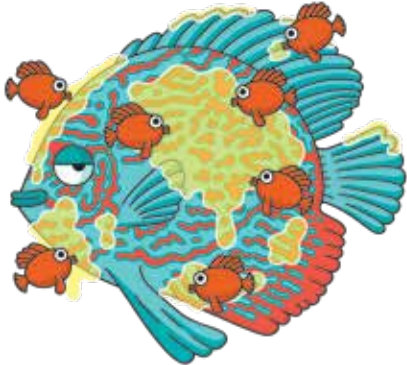
Researchers think these huge designs were created when ancient Peruvians scraped off a dark, rocky layer of earth that contrasts with the lighter-colored sand underneath. What were they for? They may have once served as travel markers or places for religious rituals. ♦



QUIZ

THAT ANIMAL MAKES MILK?

BY CHRISTINA SZALINSKI



SCIENTISTS used to think that mammals, like humans, cows, dogs, dolphins and other warm-blooded creatures, were the only ones that could make the amazing liquid food called milk. Produced by the mammary glands, milk is full of nutrients and can provide protection against disease, and it's what keeps helpless baby mammals alive until they're able to eat something else. But it turns out that mammals aren't alone! Researchers have discovered more species that aren't mammals that make milklike substances for their young. Think you can guess which animals do? Take our quiz and find out. ♦

DISCUS FISH OY ON

These colorful fish, which live in rivers around the Amazon rainforest, do make a milklike substance for their young. It's full of nutrients and other things that will help keep the baby fish alive, but it's more like a mucus than a liquid. Both parents produce the slime, which coats their skin, and let their babies feed on it until they're about 3 weeks old.

EMPEROR PENGUIN OY ON

In the penguin community, it's the father who spends harsh Antarctic winters sitting atop an egg to keep it warm. It's also the father who produces a fatty liquid inside his crop, a food storage pouch in his throat. To feed a newly hatched chick, he regurgitates (or throws up) the "crop milk." Other birds make crop milk, too, including pigeons and flamingos.

ANTS OY ON

As far as scientists know, ants don't make milk, but another insect does: the Pacific beetle cockroach. This cockroach's babies actually grow inside their mother, where they drink a liquid that scientists say is one of the most calorie-rich "milks" on the planet. (The official title goes to the milk of hooded seals, says Amy Skibiel, a University of Idaho professor who studies milk. Hooded seal pups drink their mother's milk for only four days, but during that time gain about 50 pounds!)

NEMATODES OY ON

Nematodes are tiny roundworms that live in the soil. They don't have a heart or blood, yet scientists recently discovered that one nematode species (*Caenorhabditis elegans*) makes a nourishing protein substance to help its offspring grow. To make this milk, though, the adult nematodes have to break down their own bodies, ultimately dying to support their young.

JUMPING SPIDERS OY ON

Yup, female jumping spiders make a nutritious substance for their spiderlings, which depend on this milk to survive. They will feed on it for about a month, until they can hunt food on their own.

GREAT WHITE SHARKS OY ON

Mommy Shark does indeed produce a liquid akin to milk for her baby shark, called a pup, but only before it's born. As the pup grows inside its mom, the nourishment helps it develop. ♦