

Compare
and
Contrast

Goldfish Go

What happens when a cute little household pet gets loose in the wild?

BY TOD OLSON

They've invaded a river in Australia, a bay in Canada, and a lake in Colorado. They settle in and start to **breed**. Soon there are thousands of them. They are enormous. They turn blue water brown and eat everything in sight.

It's the attack of the monster . . . goldfish?

Experts who study rivers and lakes say goldfish are a real problem. And it's not the fish that started it all. It's humans. Pet owners get tired of the little Nemos and Dorys in their fish tanks. They take their fish to a nearby stream and *plunk!* They send their pets into the wild.

It seems more **humane** than flushing a pet down the toilet. But it's called aquarium dumping. Many invasive species get into rivers and lakes this way. An invasive species is an animal or plant from one area that "invades" a new environment and causes damage.

When goldfish live in open water, they

get really big—and cause big problems. These goldfish have more oxygen and food than goldfish in a tank. That means they grow more. Some weigh as much as four pounds!

Giant goldfish search for plants, fish eggs, and other treats at the bottom of the river or lake. Their feeding habits stir up sand and dirt and make the water cloudy.

Native fish have a hard time living in these conditions. They often die.

Once goldfish take over, they are hard to get rid of. Officials have tried poisoning them. But poison kills native species too.

The best way to protect native fish is to keep pet fish out of rivers and lakes in the first place. People should give unwanted fish back to pet stores. And there are special ponds where pet fish can be left. They can live there without harming other fish.

But sometimes nature solves its own problems. In 2015, officials in Colorado discovered that thousands of goldfish had taken over a lake.

Officials thought about feeding the fish to birds at a **sanctuary**. They thought about draining and refilling the lake. But before they could decide what to do, help came from an unexpected source: A flock of hungry pelicans ate up all of the invaders. •

VOCABULARY

breed: have babies

humane: kind, not meant to cause suffering

native: naturally belonging in a place

sanctuary: a place that offers shelter or protection

descendants: those that follow in a family line, such as children and grandchildren

COURTESY OF DR. STEPHEN BEATTY/MURDOCH UNIVERSITY (GIANT GOLD FISH); SHUTTERSTOCK (DORIS)

NAME: _____ DATE: _____

GOLDFISH GO BIG

There are five vocabulary words listed on the front page. Use each on in a CORRECT SENTENCE below.	
breed	
humane	
native	
sanctuary	
descendants	

What three bodies of water did the gold fish invade?

What name is given to the act of dumping pet fish into bodies of water?

What happens to the native fish when goldfish enter their habitat?

What other alternatives should pet owners do with unwanted fish?

What natural way did the goldfish problem get solved in Colorado?

on the Loose

More than 500 years ago, explorers sailed to the Americas. They brought a few four-legged passengers along with them: pigs.

The pigs were meant to provide food for settlers. Sure enough, the animals made themselves at home and began to breed.

Today, the **descendants** of those first pigs are still going strong—too strong. There are nearly six million wild pigs, also known as boars, running free in the U.S.

Boars chew up crops and soccer fields. They gobble up baby birds and turtle eggs. Every year, they cause \$1.5 billion in damage. People are desperate to stop them, but boars keep thriving.

Boars are different from pigs raised on farms. Adult boars weigh as much as 200 pounds—that's less than regular pigs. Boars grow thick hair that protects them from the cold. They have long tusks that jut from their lower jaws.

Boars have strong snouts to dig up food, like potatoes and peanuts. These wild pigs can

barely see. But they can smell food up to 7 miles away and 25 feet underground.

Texas is home to half of the country's boar population. Some counties offer hunters \$5 for every boar tail they bring in. Texas also uses high-tech weapons to battle the wild pigs. The latest is a steel cage that hangs off the ground.

Officials lay a trail of tasty corn leading to the cage. Special cameras record the boars approaching. Officials watch from afar. At just the right moment, the officials press a button on an app. The cage drops and captures a dozen boars all at once.

But boars are smart. They've learned ways to avoid getting caught. They know that humans hunt in daylight. Now the animals sleep during the day and eat at night, when it's safer.

Until we find a way to outsmart them, boars will keep pigging out on farms, gardens, and lawns. Pigs were brought here to feed us—but we seem to be stuck feeding them. •

Action
Activity

Compare and Contrast

GO
FURTHER!
FIND
ACTIVITIES
ONLINE

How are these two invasive species alike and different?

WHAT TO DO: Complete the sentences below using examples from the text.

1. One way giant goldfish and wild boars are alike is

(Hint: Are they native to where they live now?)

2. One way giant goldfish and wild boars are different is

(Hint: What kind of place do they live in now?)

WILD PIGS ON THE LOOSE

Why were the pigs brought to the Americas?

How many wild boars run free in the US?

How much money worth of damage are caused by the pigs annually?

How are boars different than normal pigs?

Where do nearly half of the wild pigs live?

How are the goldfish and boars ALIKE and DIFFERENT:

BIOLOGY: HUMAN BEHAVIOR

Level Up

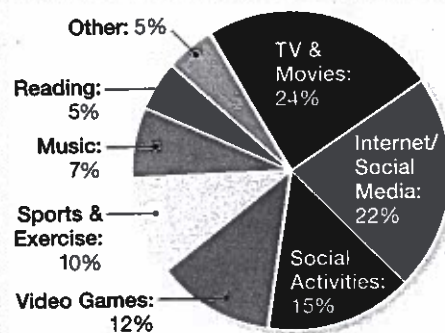
Would your school benefit from a club where kids can play video games? Matthew Barr, a lecturer at the University of Glasgow in Scotland, thinks so. Barr recently asked 16 college students to play 14 hours of video games over eight weeks to study how it affected their brains. He discovered that the activity helped strengthen *neurons*—specialized nerve cells—in the brain related to resourcefulness, adaptability, and communication. Even when students played single-player games, their social skills improved as long as they were talking to other players at the same time. “Playing video games is like exercising your brain,” says Barr. “The more you practice using the brain, the stronger it gets.” —Spenser Mestel



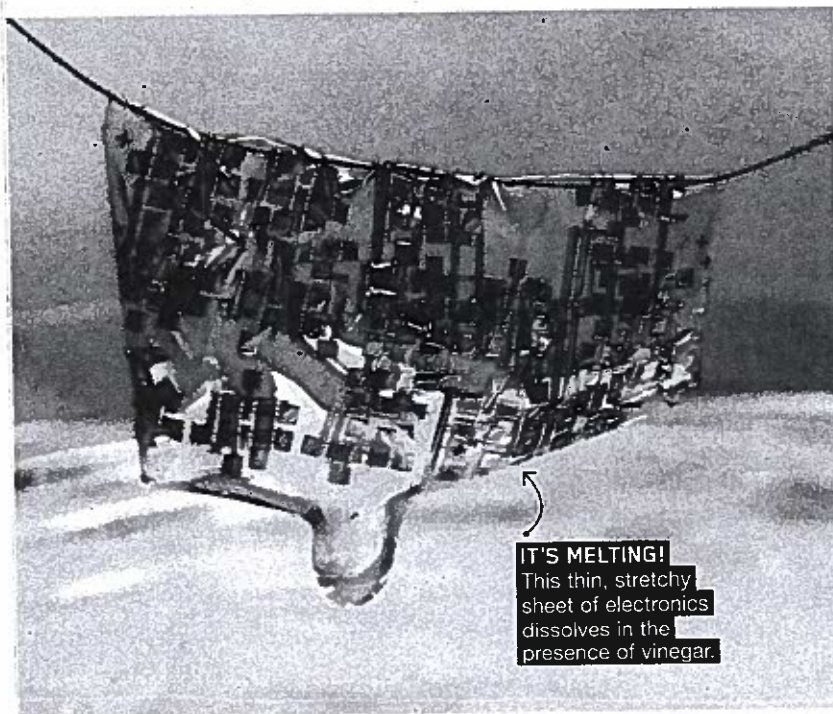
HOOKED: This teen is one of 55 million people who play the popular game *Minecraft* each month.

GAME TIME

This graph shows the percentage of free time kids ages 13 and up in the U.S. spend on various activities. How does this breakdown compare to how you and your friends spend your time?



SOURCE: NIELSEN GAMES 360 REPORT (2017)



IT'S MELTING!
This thin, stretchy sheet of electronics dissolves in the presence of vinegar.

CHEMISTRY: MATERIALS

Dissolvable Electronics

Each year, people in the U.S. throw out 10 million tons of broken or outdated computers, phones, and other devices. To prevent this *e-waste* from piling up in landfills, it's essential to find alternatives to throwing it away, says Ting Lei, a chemical engineer at Stanford University in California. Lei recently helped develop a new plastic *polymer*—a large molecule made up of repeating units. The chemical bonds between some of the polymer's atoms break down in the presence of acids, such as vinegar. The polymer could be used to make dissolvable electronic components that are better for the environment.

—Hailee Romain

Science News Mini Articles

LEVEL UP

What area of science does this article discuss?

Playing video games can help strengthen _____, which are specialized _____ . They can help with the following three tasks:

- 1.
- 2.
- 3.

Playing with other players at the same time can improve _____ .

GAME TIME: Use the graph to answer the following questions.

What age group does the graph display?

According to the graph, what do teens spend the most time doing?

How does the graph compare to how YOU as an individual spend your time? Answer in complete sentences.

DISSOLVABLE ELECTRONICS

What area of science does this article discuss?

What is the term used for electronics that are thrown away?

What happens to the new polymer in the presence of acids?

OUTSIDE THE ARTICLE: What are other options to do with electronics you are no longer using? Answer in complete sentences.