



Credit: Chuck Szmurlo

Small pieces of plastic are harmful when eaten by wildlife.



Think,  
Pair,  
Share!

**What plastic objects do you see in this x-ray of a condor?**

Note: This condor was okay. Doctors removed the plastic and saved the bird's life.

## Plastic is commonly eaten by birds

Birds don't chew their food, they just peck it off the ground and swallow it whole. Because of this habit, birds are particularly vulnerable to being hurt by eating small pieces of plastic. Birds are attracted to white pellets and colorful objects. They commonly swallow pieces of plastic whole. Many types of birds, including the California Condor, commonly eat bits of trash in the wild.

Show the photo and x-ray of the California Condor on the opposite page.

### Define

The **California Condor** is an endangered species in California. At one time, there were only 20 of these birds left. Now there are over 500. California condors can't survive when plastic gets stuck inside them.

### Explain

Show the x-ray of the condor's stomach.

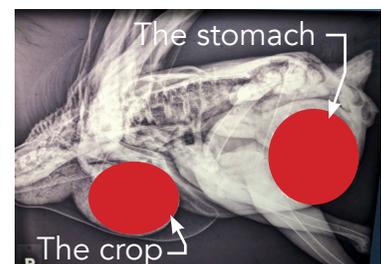
An x-ray is a photo of the inside of the body that doctors use to help see why we might be sick. This is an x-ray of a sick California condor that was rescued and taken to the Lon Angeles Zoo for care.

### Ask

Can you see any pieces of trash that the condor has eaten?

I am going to call on a few students and ask you to come up and point to an area in the x-ray where you see trash that does not belong inside this special bird.

**Teacher support:** Many bottle caps, buttons, and small pieces of plastic can be seen trapped inside the bird in two areas: the crop and the stomach. The crop is where a bird stores food temporarily. They can gobble up lots of food when it is available and store it for later in the crop.





## How do bits of plastic get stuck?

Use a balloon to discover how small bits of plastic can get stuck in wildlife.

### What you will need:

- A balloon
- Bits of plastic that you have collected such as bottle caps or candy wrappers



Bottle cap



Tiny duck

LEGO legs



Candy wrappers

# Bits of plastic get stuck in animals

When plastics are left out in the sunlight, they become brittle and break into tiny pieces. Fish and birds think those small pieces of plastic are food and they eat them. Pieces of plastic easily get stuck inside these animals causing them harm.

## Demonstrate Balloon Demonstration Plan

**Objective:** You can demonstrate how plastic can get stuck in the internal organs of an animal by showing how bits of plastic can get stuck inside a balloon. A balloon is similar to internal organs in our digestive system because they are both thin, flexible, and are shapes that have small openings, like the neck of the balloon. It is very easy to put objects in a balloon, but the objects don't come back out on their own. Once inside the balloon, they are stuck.

**Explain** We are going to explore how small bits of plastic can get stuck inside an animal using a party balloon and some bits of plastic.

### 1. Take a balloon and hold it up for students to see

**Ask**

How does the balloon look? How does it feel?

Example: The balloon is thin and flexible, floppy, and has an opening.

### 2. Blow up your balloon but don't tie it shut

**Ask**

How does the balloon look? How does it feel?

Example: The balloon is thin and plump. It is large, firm, and full of air.

Let the balloon go and watch it fly in the air. Show that it is small, thin and floppy again.

### 3. Put bits of plastic inside your balloon

Gently put a few bits of plastic inside the balloon.

**Ask**

How does the balloon look? How does it feel?

Example: The balloon is lumpy. I can feel bits of plastic inside it.

### 3. Blow the balloon up and then let the air out

Shake the balloon, let the balloon go and watch it blow across the room. Pinch the mouth of the balloon and make it whistle. Help your students make the observation that although air can go out of the balloon, the plastic stays inside.

Continued from previous page

Ask

How does your balloon look when it is full? What happens when you shake it?

Example: My balloon is plump. I can see bits of plastic inside it. The pieces rattle when I shake the balloon.

Ask

Does the plastic come back out of your balloon? Why or why not?

Example: My plastic bits are stuck inside my balloon because...

## Plastic can travel far and wide

Animals don't use plastic, so you might not expect places without humans to have plastic waste. But plastic washes up on beaches all over the world, even the most far-away islands. A group of researchers in Hawaii collected 22 buckets of sand from places where nobody lives. They searched through the buckets of sand for tiny things. Out of every 100 tiny things they found that 70 of those things were plastic!

Ask

Would you expect to see plastic trash on islands far from where people live? Why or why not?

Example: I think plastic trash could travel far with wind and waves because plastic floats in water.

Explain

When we throw away plastic, it doesn't go away on its own or decompose. It stays forever and travels far and wide, hurting lots of animals on the way.

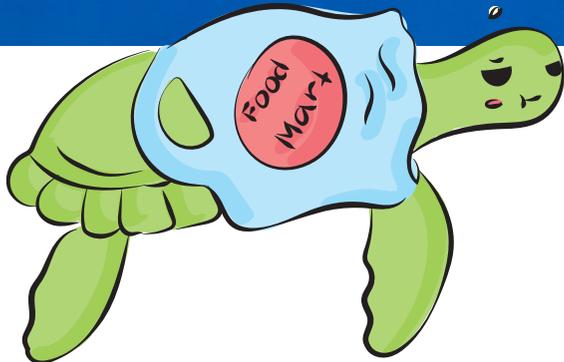
Ask

How can we solve this problem of so much plastic trash

Example: Hawaii is one of the first states to stop using plastic and foam take out food containers, straws and plastic grocery bags. This will help reduce the amount of plastic trash.



I'll be wearing this for a while.



Wild animals can become entangled in plastic.

## Animals can become entangled in trash

Plastic trash ends up in our oceans every year. A single plastic bag, cup, rope, or piece of fishing line that we throw away can harm wildlife forever. Plastic can easily get caught around a bird's neck or beak, making it impossible to eat. Sea turtles mistake plastic bags for a delicious jellyfish, or get tangled in them when they are hatchlings. All the living animals that get tangled in plastic are in danger. Sea turtles, birds and marine wildlife including fish, dolphins and whales can be harmed by plastic in the environment.

### Ask

Why can't these animals break free when they become entangled in plastic items?

Example: Animals don't have hands and they don't know how to untie knots. When an animal becomes entangled it can be life-threatening.

### Explain

Many people try to find and help entangled animals but we can prevent animals from being entangled in trash by using less plastic in the first place.



All Tangled-up



Think,  
Pair,  
Share!

What type of  
hand animal will  
you make?



**My turtle hand-animal:**

Meet Tubby the turtle. Can you see my turtle's long neck and its large shell?

**My coyote hand-animal:**

Meet Kailey Coyote. Can you see my coyote's two pointy ears and her large mouth?

**What you will need:**

- A piece of string



# I'm all tangled up!

Today, you will see how getting tangled up can be a dangerous situation for an animal. It is easy to become entangled but hard to become free again.

**Objective:** You can demonstrate how animals can become entangled in trash such as string, rope, netting and plastic bags.

**Note to Teacher:** Do this activity in small groups with adult supervision. You may wish to do this activity by inviting students to come up to the front of the class to help with the demonstration one at a time.

**Explain** We are going to do an activity in which you will pretend your hand is an animal. Explore what it is like to try to get out of a tangle using only one hand.

## Explore I'm all tangled up - Activity Plan

### 1. Decide what type of hand-animal you want to have

Draw eyes, feathers, or wings on your hand. You can make your hand into any kind of animal! You could be a seagull, a fish, a shark, a whale or even a sea turtle. Your arm could be a beak, or your fingers could be flippers. Be creative!

### 2. Tangle your hand up with the loop of yarn

Tie a piece of yarn around your hand-animal. Tangle up your hand-animal as good as possible.

### 3. See if your hand-animal can untangle itself

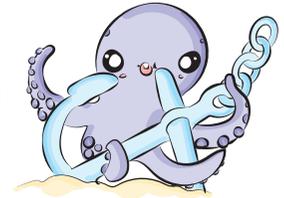
You have one minute to get the yarn off your hand. Remember, you can't use ANY help from your other hand! Can your hand animal free itself?

**Explain** Animals don't have hands and thumbs to help them get free if they become tangled. A simple loop around a bird's foot or neck could trap a wild animal.

**Ask** Was it easy or hard for you to free your hand? What did you learn while experimenting with tangled string?

Example: It was kind of difficult to free myself without the help of my other hand. I tried many times so I know what it would feel like to be a bird tangled up in string.

Discuss the phenomenon with your class to see what they learned throughout the chapter.



Explain the Phenomenon

## Can you explain it?

What will you do to be more environmentally friendly?

Example: Turn off the lights, recycle batteries, ride my bike more and turn off the tap while brushing my teeth. I could take shorter showers, recycle, use plates and metal forks and wash them, avoid single use disposable items and not burn or use plastics.

Allow your students time to explain the phenomenon by drawing a picture on their journaling page.

Draw what you will do to be more environmentally friendly.



**Let's talk about it!**

What is something that you will do to be more environmentally friendly?

I can ...

---

---

---

42