

**Rationale**

In order to put condors in their context, students will explore different excerpts from authors connected to condor studies.

**Objectives**

1. Students identify what types of trash condors collect and ingest
2. Students understand the path of trash from our community to a condor's nest

**Aligned Standards**

NGSS: Asking Questions, Defining Problems and Conducting Investigations and Arguing from Evidence; Causation  
ESS3.B: Students will determine what type of a hazard microtrash may be considered and their role in its reduction.

**Time**

One-day lesson  
Teaching time: one hour (approximately)

**Vocabulary**

microtrash: dime sized trash ingestion

**Materials**

Personal and group trash collection bins, images

**Tech Integration**

X-Ray photo library

**PROCEDURE – DAY 1****EXPLAIN (10 minutes)**

In the classroom, the teacher explains that trash collection is an important part of conservation for identification, assessment, and disposal. Students are given collection bins and the class journeys to the schoolyard to collect trash.

**EXPLORE (30 minutes)**

Trash collection in the schoolyard. Small groups can be formed to sort trash (microtrash, compost, paper) and race to sort their trash. (Variation: the entire group can race to sort the trash.) Teacher highlights the type of trash found in condor nests and guts: pop tops, bottle caps, glass, screws, and metal nuts.

**IMAGES (10 minutes):**

Students return to the classroom, and sort trash into categories. Determine how these are mistaken for food and nest material, and how they are harmful to the condor. Teacher shows images of trash in nest sites and x-ray of trash in condor gut or crop. Students hypothesize about the path of trash from the schoolyard to a condor nest. Students offer ideas on how to eliminate trash in the schoolyard and beyond.

**Before you begin**

Prep collection bins or baggies for trash. Set out three main bins in the classroom, label them “Microtrash,” “Compost,” and “Other.” Prepare to project images of condors that have ingested microtrash from the X-ray photo library.

**What to do**

Every individual is a consumer. By looking at trash and microtrash, we can directly see the effects of our consumerism on the wild populations of a variety of species. This concept puts us in a position to examine our personal responsibility in this area. The term “conservationist” sounds official, but what it really means is someone willing to intentionally and consciously conserve our environment. Are we willing to do this?

Compass Points is a great routine for examining what we think and want to know about this topic before committing to an answer.

On the board, draw a large compass rose. Explain to the class that the compass is an instrument of guidance and gives direction. We will be using it as an acronym to help us find direction in the issue of recycling. Have the class take our their Observation Journals to record their ideas as we discuss.

- E = Excited:  
What excites you about the idea of recycling? What’s the upside?
- W = Worrisome:  
What do you find worrisome about trash? What’s the downside?
- N = Need to Know:  
What else do you need to know or find out about recycling? What additional information would help you to evaluate things?
- S = Stance or Suggestion for Moving Forward:  
What is your current stance or opinion on the idea of recycling? Is it reflected in your actions? How might you move forward?

Use this activity as a jumping-off point for discussion the issue of trash. Have the class consider why conservationists might be so determined to make sure trash is collected properly.

**Explore**

Inform the students that they will be doing an investigation on their own school playground. In teams, they will be going out to look for and collect loose microtrash. Pass out collection bins and gloves and set up sorting bins in front of the room. Explain that the sorting bins are labeled “Microtrash” for small, quarter-sized objects that condors might collect, “Compost” for biodegradable trash, and “Other” for all other trash. When the students return from searching the playground, they will sort out what they’ve found, recording the number of each type. Let them know how you will signal them when it is time to return (whistle, bell, etc.).

Send the class out and assist where needed. If the students are having a hard time finding trash, use the bags of provided trash to supplement as examples.

One-day lesson  
Teaching time: one hour  
(approximately)

**COMPASS POINTS: A VISIBLE  
THINKING ROUTINE**

This Routine enables students to think about an idea before formulating an opinion about it. Most students will know what recycling is; this will give them an opportunity to think about the good and challenging aspects of it.



**OPTIONAL EXTENSION:**  
Have students share their thoughts about each question and either write on post-its or write directly onto the compass rose.

**ELL MODIFICATION:**  
Display images of examples and Spanish translations of Vocabulary words on sorting bins.

## READY, SET, SORT CONSERVATION B



**OPTIONAL EXTENSION:**  
Complete the microtrash search  
as a race between teams.



**OPTIONAL EXTENSION:**  
“I Used to Think... But Now I Think...”  
A routine for reflecting on how and  
why our thinking has changed.  
This routine helps students to  
reflect on their thinking about a  
topic or issue and explore how and  
why that thinking has changed. It  
can be useful in consolidating new  
learning as students identify their  
new understandings, opinions,  
and beliefs. By examining and  
explaining how and why their  
thinking has changed, students  
are developing their reasoning  
abilities and recognizing cause  
and effect relationships.

Signal the class to return after about 20 minutes. Back in the classroom, have them come up to the sorting bins and share what they found. Examine the “Microtrash” bin. In it should be items such as pop-tops, bottle caps, glass, screws, and metal nuts. As a class, have the students infer how these objects might harm the condor.

### **Images**

Show videos and images in Microtrash Photo Library. Ask the students to discuss what they see in the nests and in the X-rays that they found lying around the playground.

Return to the Compass Points Activity that was introduced at the beginning of the lesson. Ask the students if their thoughts have changed regarding trash collection and recycling.

If there is extra time, have the students frame their learning with “I Used to Think..., But Now I think...”

A Visible Thinking Routine for reflecting on how and why our thinking has changed. This can also be done independently in their Observation Journals.

Remind students of the issue of trash and recycling. Have students write a response using each of the sentence stems:

- I used to think...
- But now, I think...