

Earth Choices

Teacher Video Guide - Online

4th -5th Grade

<https://www.youtube.com/playlist?list=PLB2faWWqJxFMCMt6Azibw0hsxnOrYXv5>

After watching these three videos, students will:

- Define and identify natural resources
- Connect natural resources to man-made products and daily actions
- Define and understand the term “eco-footprint”
- Give examples of behavior changes to decrease our use of resources

Earth Choices Part 1: Natural Resources (3:47 minutes)

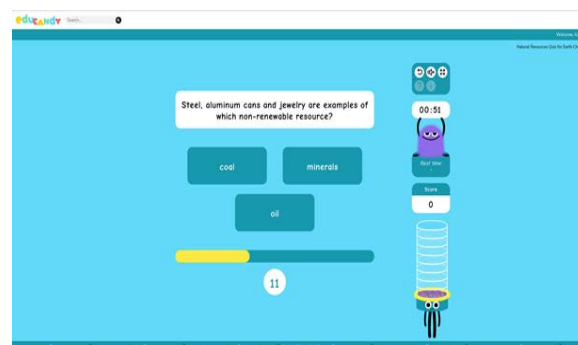
Join Nicole from Metro as she discusses natural resources and how they are important to us and a local indigenous community. Learn the difference between renewable and non-renewable resources.



EC-1 Post-Activity #1: Following the video, have students visit the below website and play the two natural resources games available.

Multiple Natural Resources Activities: Visit www.educandy.com enter code: 6e51a

Renewable and Non-Renewable Resources Quiz: Visit www.educandy.com enter code: 6df1f



EC-1 Post-Activity #2: Have students pick one thing in their house and research where that item came from and what natural resources were used. Have students map out their natural resources and present their findings. Students can create a Google map to demonstrate the origins of their resources and show how far they traveled.

To create a Google map with a pinpoint at each location. 1) Click on the menu next to the Google maps search box (three horizontal lines), click on “Your Places”, “Maps”, and then “Create Map” at the bottom of the screen.

Earth Choices Part 2: The Deyonce Story (7:50 minutes)

Join Nicole from Metro as she shares a story about Deyonce and her daily routine. Listen closely and find the natural resources hidden in our home and daily actions. How can Deyonce approach her day a bit differently to conserve natural resources?



EC-2 Post-Activity #1 Have students re-write the Deyonce story but this time include all the actions she could have done differently to use less natural resources. Ask students to include details and demonstrate understanding of their central message or lesson. Students can re-tell the story through writing, drawing, orally or through video response.

EC-2 Post –Activity #2 Have students share their own story. What does their average day look like? Ask students to highlight the actions they already take to use less natural resources. Have them share their new ideas and showcase current actions/practices that are important to them and their family and culture! Allow them to share with what they feel most comfortable. Students can share their story through writing, drawing, orally or through video response.

EC-2 Post –Activity #3 Have students partner-up and design a new character and story. It should highlight a person going through their daily routine. Instruct students to create scenarios that allow for other students to suggest alternative ways to conduct them. Have students share with others and have classmate share their suggestions.

Earth Choices Part 3: Eco-Footprint (8:34 minutes)

Join Nicole from Metro as she introduces Eco-footprint. Learn about our impact and discover ways we can shrink our eco-footprint, right in our homes and schools.



EC-3 Post-activity #1 Following the video, have students determine their individual eco-footprint.

Go to <https://www.footprintcalculator.org/>

Possible discussion questions for students:

- How did they feel about their results?
- What surprised them?
- What is one action they can take or what pledge can they make to reduce their eco-footprint?

Have students share through writing, drawing, orally or through video response.

EC- Post-Activity #2 With the help of your students, design a classroom or school wide eco-challenge.

Visit <https://ecochallenge.org/global-ecochallenge/> for ideas.

EC-3 Post- Activity #3 In-Classroom Activity- Use templates on pages 6-12

- Divide students into six groups and provide one printed puzzle piece to each group.
- Give each group about 7-10 minutes to answer the question on the puzzle piece.
- Students can write their ideas on the puzzle piece.
- Groups then share their ideas with the class and place the puzzle piece on the magnetic or pin board for those to see.

- Once all groups have presented, work with students to figure out how the puzzle pieces fit together. (It forms into a footprint and captures the ideas of the students.)

Follow up with discussion. Have students vote or agree to one of the actions listed, as their classroom pledge to reduce their eco-footprint. OR have students sign their name on one of the puzzle pieces, as pledge to an action that best matches their needs and sphere of control. * *This activity can be adapted for virtual learning using Jamboard or Google slides.*

EC-3 Post-Activity #4 Material items that enter our transfer stations and landfills all came from natural resources; wood, cotton, oil, metal - Visit the live camera at the Metro South Transfer Station to see what arrived in the garbage today. <https://www.oregonmetro.gov/tools-living/garbage-and-recycling/metro-south-transfer-station/metro-south-trash-cam>

Possible discussion questions for students:

- What is the most common item they see in the pit?
- What is one action they can suggest to folks to help eliminate that common item in our trash?
- Why did they pick that action?

Have students share through writing, drawing, orally or through video response.

If you would like more information about waste prevention, check out our education resources at <https://www.oregonmetro.gov/tools-partners/education-resources/resource-conservation-and-recycling-education> or email us at nicole.hernandez@oregonmetro.gov. If you would like to learn more on how to recycle our plastics in the Portland Metro region, please visit: www.recycleornot.org or www.reciclarono.org or follow Recycle or Not on Instagram.

Next Generation Science Standards

- 4-ESS3-1: Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.
- 4-ETS1-2. Generate and compare multiple solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
- 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.
- 5-ETS1-2. Generate and compare multiple solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

English Language Arts Standards

- CCSS.ELA.Literacy.SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- CCSS.ELA.Literacy.SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on, building on other's ideas and expressing their own clearly.
- CCSS.ELA.Literacy.SL.4.2 - Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and oral (speaking and listening, comprehension and collaboration)

- CCAA.ELA-Literacy.W.2.8 - Recall information from experiences or gather information from provided sources to answer a question.

Oregon Social Studies Standards

- Civics and Government: SS.03.CG.03 - Identify ways that people can participate in their communities and the responsibilities of participation
- Social Science Analysis: SS.03.SA.04 - Identify how people or other living things might be affected by an event, issue, or problem.
- Social Science Analysis: SS.03.SA.03 Identify and compare different ways of looking at an event, issue or problem
- Social Science Analysis: SS.03.SA.03 Identify possible options or responses; then make a choice or express an opinion
- Geography: SS.05GE.07.02 Describe how human activity can impact the environment
- Social Science Analysis: SS.05.SA.04 Identify characteristics of an event, issue or problem, suggesting possible causes and results;
- SS.05.SA.05 Identify a response or solution and support why it makes sense, using support from research

National Education for Sustainability K-12 Students Learning Standards

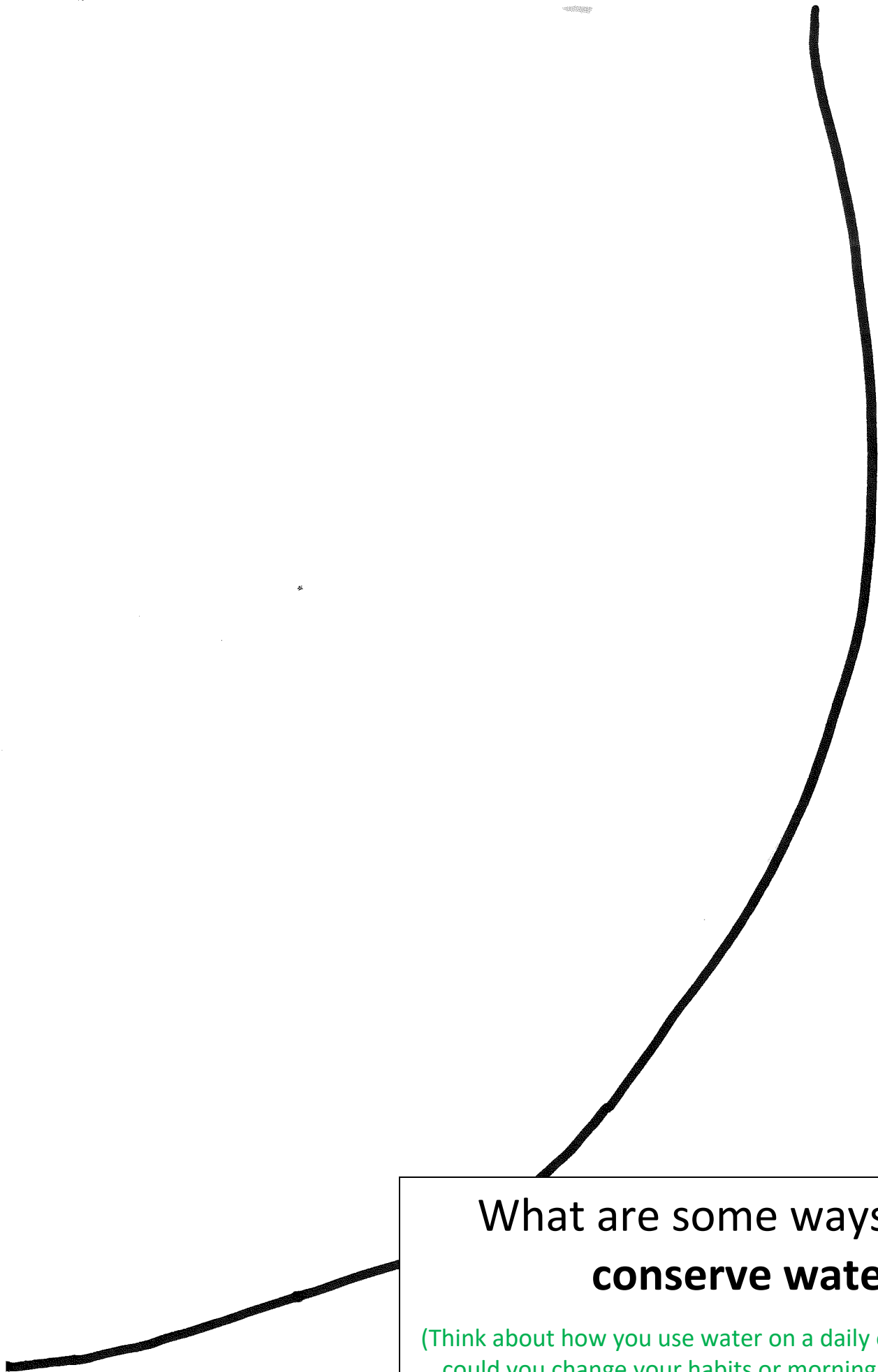
Grade K-4

- 2.1 Interconnectedness- Sense of Place: Students demonstrate an understanding of place – the natural systems and cycles, the human/cultural context, and the connections between both. At this grade level they focus on developing their sense of place in their immediate community.
- 2.2 Ecological Systems - Plants, animals, habitats: Students identify food/energy, water and shelter as basic needs of animals and plants.
- 2.3 Economic Systems - Human needs and wants: (food, water, energy, shelter) Students distinguish between personal wants and needs and identify how culture, marketing and advertising inform their consumption patterns.
- 2.4 Social and Cultural Systems - Collaborative learning: students perform effectively on teams that conduct investigations
- 3.1 Personal Action - Making a difference: students understand that everyone has the ability to affect change or impact a system, community and self.
- 3.1 • Setting Goals - Students assess their own learning by developing criteria for themselves, and use these to set goals and produce high-quality work. • Communicating Ideas - Students use different media to share ideas with diverse audiences. • Making a Difference - Students take an active role in their community and feel a locus of control or self-efficacy. Students understand that everyone has the ability to affect change or impact a system, community, and self.
- 3.2 Collective Action Setting Goals - Students work cooperatively and respectfully with people of various groups to set community goals and solve common problems. • Working Together - Students perform effectively on teams that set and achieve goals, conduct investigations, solve problems, and create solutions (e.g., by using consensus-building, conflict resolution, and cooperation to work toward group decisions). Students use systematic and collaborative problem-solving processes, including mediation, to negotiate and resolve conflicts. Students respect and value human diversity as part of a multi-cultural society and world.

Grade 5-8

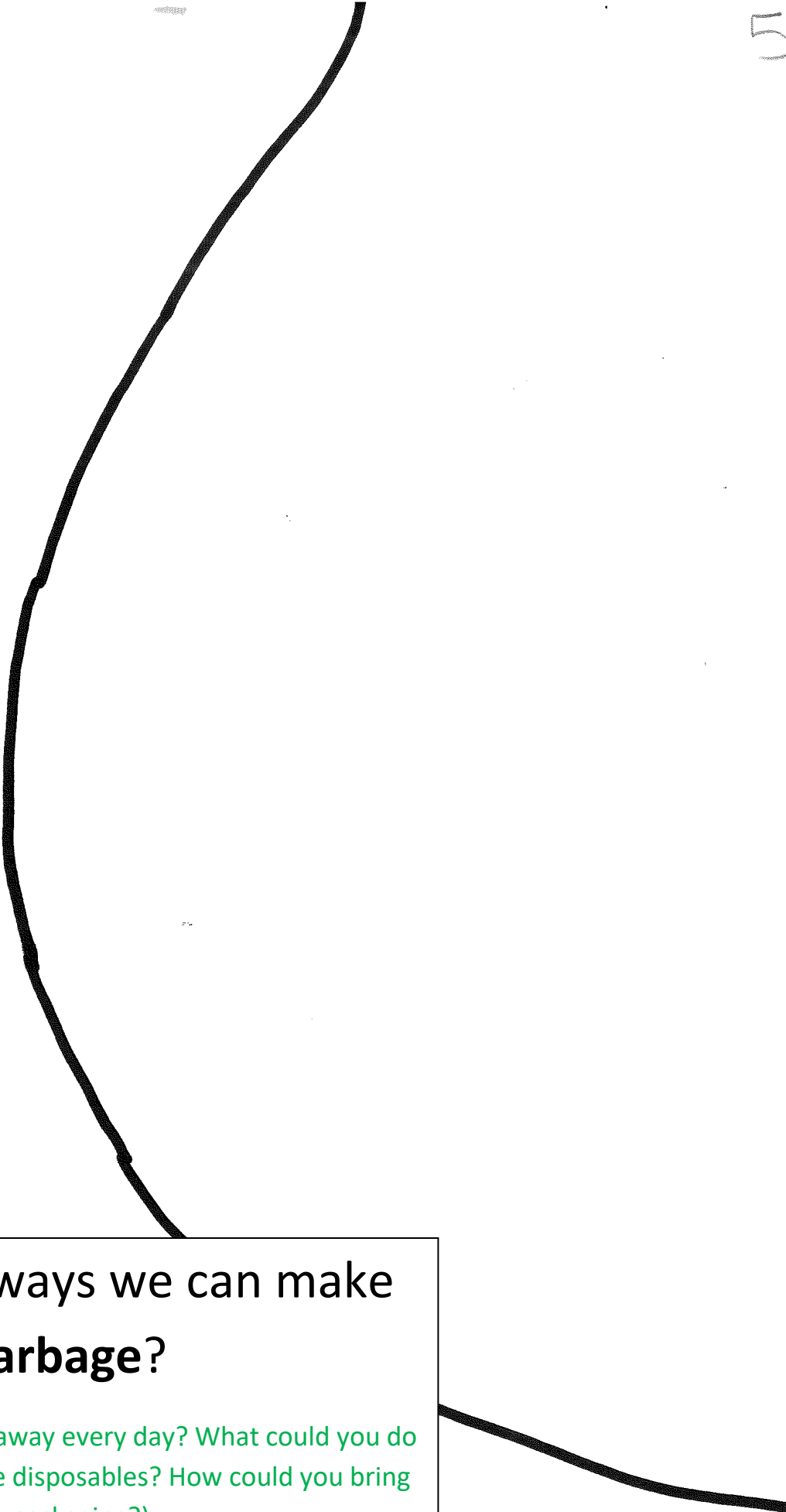
- 2.1 Interconnectedness – Systems: Students describe the ecological, economic, political, and social systems in their community and can identify leverage points in the system to improve their community

- 2.1 Interconnectedness- Interdependency: Students explain how natural and built communities are part of larger systems and the interrelationships that exist among those systems.
- 2.2 Ecological Systems- Natural Resources (renewable & non-renewable) – Students investigate the natural systems in their local region and explore how humans have impacted those systems, both positively and negatively. Students distinguish between natural resources and things made by humans
- 2.2 Ecological systems- Carrying Capacity - Students provide an example of the maximum population that an environment can support indefinitely.
- 2.2 Ecological Systems- Ecological Footprint: Using standard footprint calculation models, students determine the impact of their lifestyle decisions such as transportation, food, and housing choices.
- 3.1 Personal action: Personal Responsibility: Students know the difference between actions that they can take themselves and those that require the involvement of other people, organizations, and government. They identify and carry out a personal action that will enhance quality of life in environmental, social/cultural, or economic sectors.
- 3.1 Personal action- Personal Footprint Calculation: Students use an on-line calculator to determine their ecological footprint.



What are some ways we can
conserve water?

(Think about how you use water on a daily or weekly basis. How could you change your habits or morning/nightly routines?)



What are some ways we can make
less garbage?

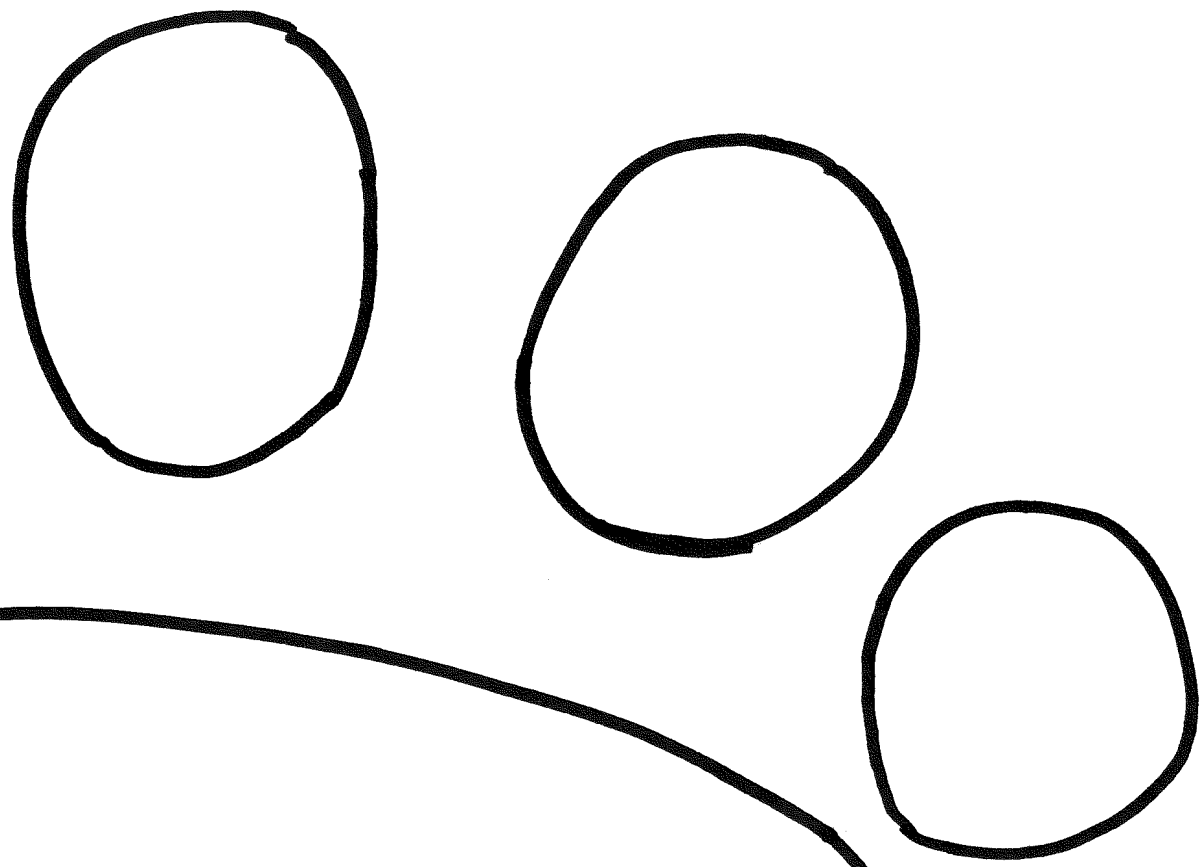
(What are the things you throw away every day? What could you do different? How often do you use disposables? How could you bring home less packaging?)

What are some things you can do to **avoid buying new clothes and backpacks?**

(How could you take better care of it? Where do you shop? What can you do if it rips? How could you wash it differently?)

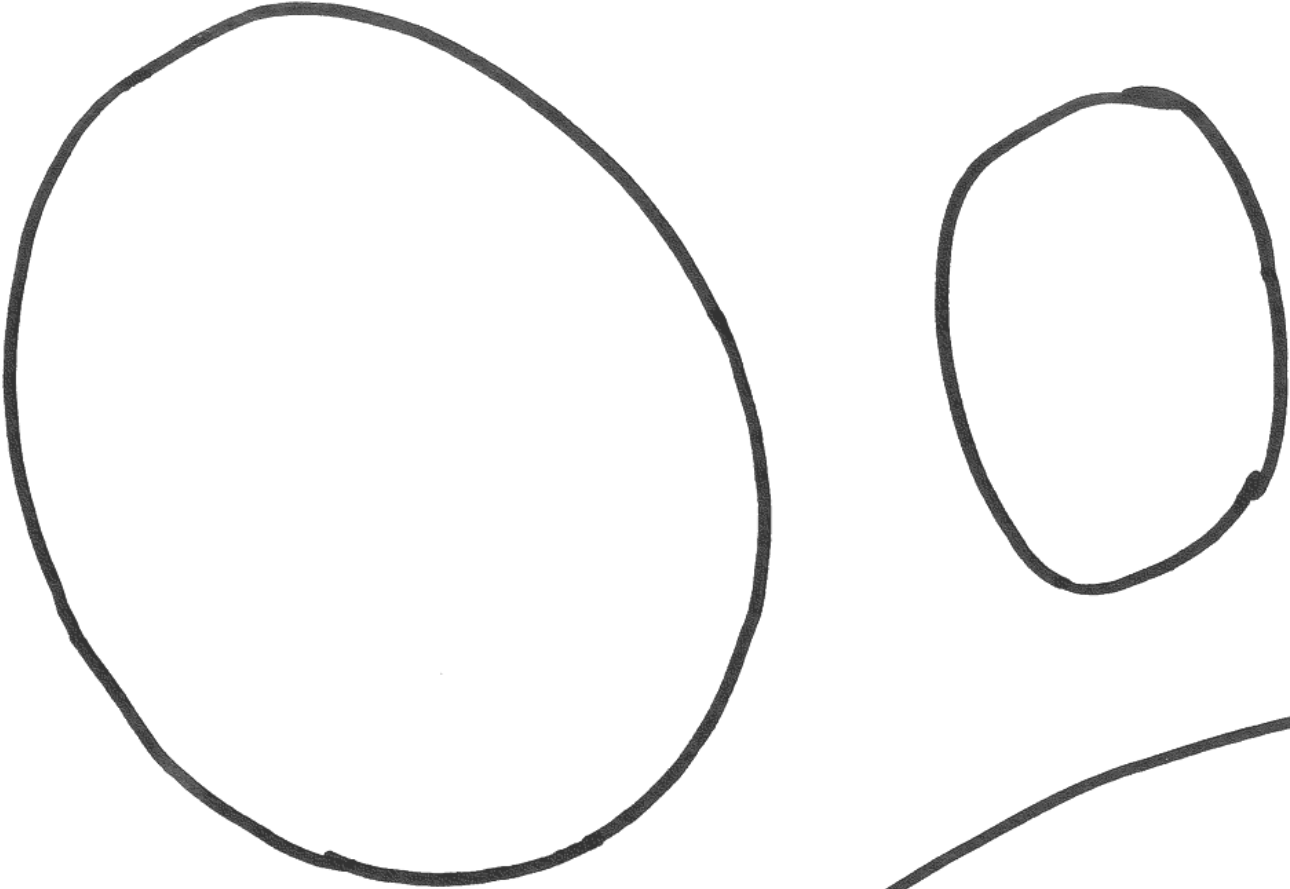
What are some ways we can make our **electronic devices last longer?**

(How could you protect it? What can you do if it breaks? How often do you need to upgrade?)



What are some ways we can
make **less food waste?**

(How can you decrease the amount of leftovers or uneaten food you create at each meal? Also, think about the prep and storage of food)



What are some ways we can use **less electricity and gas?**

(Think about the electricity and fuel you use daily in your homes or in transportation)