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| **Unit:****Earth Science** | **Topic:****Earth and Human Activity****5-ESS3-1.**  | **Lesson Seed Title:****Reduce, Reuse, Recycle** |
| **Performance Expectation(s):**Students will be able to create a product by reusing a common household item such as paper towel rolls, newspaper, or plastic bags. |
| **Brief Lesson Description:** The goal of this lesson is for students to create a product by reusing a common household item that would otherwise be thrown away.  |
| **Materials:*** **Chart paper for creating a sign showing how long it takes 10 common items to decompose.**
* **Black construction paper to cover up the times so that students have to guess.**
* **Whiteboard and marker for each student**
* **Chart paper for creating a poster for meanings and examples of Reduce, Reuse, and Recycle**
* **computers or laptops for searching for ideas**
* **a lot of plastic bags, toilet paper rolls, paper towel rolls, and plastic bottles.**
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| **Driving/Essential Questions:** Can you identify ways to reduce, reuse, and recycle products, by reusing common household items to make a new product?  |
| **Engage:** (gain attention, activate prior knowledge, pose essential question)“How long does it take to decompose” - Have a chart already created that includes 10 common household items and the [time it takes each to decompose](http://des.nh.gov/organization/divisions/water/wmb/coastal/trash/documents/marine_debris.pdf). Cover the times with construction paper so the students cannot see that information. The game requires them to guess how long each takes to decompose and the student that gets the closest to the actual time earns a point. Provide students with a whiteboard and marker and go through the list one item at a time. This allows all students to participate.  |
| **Guided Practice:**Have a piece of chart paper divided into three sections titled: Reduce, Reuse, Recycle. Explain to students that these three words are examples of ways we can help protect the Earth and keep some items out of landfills. Ask for ideas on the meaning of each word and then some examples. Students might have a difficult time coming up with a difference between reuse and recycle. After the discussion, you might come up with the following meanings: * Reduce - Use less of something
* Reuse - Use something again in a new way
* Recycle - To transform back to its raw form and make something new

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| **Explore:** (use science and engineering practices to investigate the essential questions) Show a powerpoint - [Reduce, Reuse, Recycle](file:///E%3A%5C2016-2017%5CScience%5CEarth%20Science%5CReduce%2C%20Reuse%2C%20Recycle%5C3rd%20Recycling%20PowerPoint.pptx). Allow students to comment on it contents.**Finding Ways to Reuse Common Household Waste Items:**Explain to students that we all can do our part by recycling items at home in our bins , conserving resources like water and electricity, and finding ways to reuse items around our house. -Display the materials: plastic bags, water bottles, and paper towel and toilet paper rolls you bring from home, or have students bring them. Tell students that these are items that you have a lot of at home that could possibly be reused in some way. Give groups the task of coming up with some way to reuse these items.-Choose to focus on the reusing aspect for this lesson, because recycling is done at a recycling center, we just turn in the items to be recycled, and conservation involves doing things at home like turning lights off and using less water. Find ways to reuse common items you might otherwise throw away. Groups then use laptops to search for some ideas and then begin creating a new product using these old items.  |
| **Explain:** (help students organize ideas, add ideas, and attach vocabulary)Students will share what they have reused with the class. What new thing did they make out of existing materials.  |
| **Elaborate:** Each group should write a story that includes the new idea as a feature. Have them type the story, take a picture of the model, and upload them to the classroom website, print out and post on the classroom bulletin board, or post on either kidblog.org or Edmodo.com. |
| **Evaluate:** The model and story will be assessed by whether they are completed and posted. |
| **Curriculum Connections:**ELA/Literacy **SL.5.5** - Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (5-ESS2-1), (5-ESS2-2)  **W.5.8** - Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. (5-ESS2-2) |
| **References:****Better Lesson: Much of the ideas for this lesson was borrowed from Jennifer Salis - Environment Urban lessons** |