School Recycling Club SHIP (Supporting Home Instruction Program)



Lesson Plan 8

| Grade Level: | Қ-з |
|-----------------|--|
| Lesson: | III.C.1—How Can We Reduce Waste? - Composting— Take Me Out To The Compost |
| Source: | 3 R's of the Common Core |
| Activity/Craft: | Sandwich Bag Compost PDF |
| Video Link: | Make the Most of Compost (https://www.youtube.com/ watch?v=Q5s4n9r-JGU) |
| Game Link: | Compost Bin Coloring Game PDF (http:// cleverlearner.com/science/images/preschool-waste- worksheet-6-my-compost-bin.pdf) |





| Lesson | Leading Question | Objective | Common Core | Alignments | Skills |
|------------------------------------|--|---|--|---|---|
| K-3 Garbage Bag Recipe I.A.I | What things do we throw away? | Define solid waste Identify components of waste stream Question personal rubbish habits | Kindergarten CC.RI.K.10 CC.SI.K.10 CC.SI.K.1 CC.W.K.2 CC.K.MD.3 Grade 2 CC.RI.2.1 CC.RI.2.1 CC.SI.2.3 CC.W.2.8 CC.W.2.8 | Grade 1 CCCRI.1.1 CCC.SL.1.2 CCC.W.1.2 CC.1.MD.4 Grade 3 CCC.RI.3.1 CCC.RI.3.1 CCC.RI.3.1 CCC.N.3.4 CCC.W.3.4 | Collaborating Communicating Comducting investigations Gathering information Using mathematics and computational skills |
| K-3 Litter Walk I.A.2 | What's the difference between human-made and natural litter? | Identify human-made and natural objects Classify | Kindergarten CC.L.K.5a CC.SL.K.2 CC.N.K.2 CC.W.2 CC.W.2 Grade 2 CC.L.2.5a CC.L.2.5a CC.N.2.8 | Grade 1 CC.L.1.5a CC.S.L.1.2 CC.W.1.8 CC.W.1.8 Grade 3 CC.L.3.5b CC.L.3.5b CC.S.L.3.3 CC.W.3.2a | Collaborating Communicating solutions Investigating Problem solving |
| K-3 Too Much Packaging I.A.3 | Will eating one piece of gum affect the size of our trash pile? | Examination of over-packaging | Kindergarten CC.RI.K.1 CC.SI.K.1 CC.S.L.K.1 CC.K.CC.5 Grade 2 CC.RI.2.6 CC.RI.2.6 CC.SI.2.1 CC.2.MD.10 | Grade 1 CCC.R.I.1.1 CCC.SL.1.2 CCC.1.MD.4 Grade 3 CCC.RL3.1 CCC.SL.3.3 CCC.SL.3.3 | Collaborating Collecting data Communicating Problem solving Applying mathematical concepts |
| K-3 What's Hazardous? I.A.4 | What does "toxic" mean? | Understand the meanings of: poison, toxic and hazardous waste Identify examples of poison,toxic and hazardous wastes and where they are found in the home | Kindergarten CC.RI.K.4 CC.SI.K.1 CC.W.K.2 CC.W.K.2 Grade 2 CC.RI.2.4 CC.SI.2.1 CC.W.2.2 | Grade 1 CCC.R.I.1.4 CCC.SL.1.1 CCC.W.1.2 CCC.W.1.2 Grade 3 CCC.R.3.4 CCC.SL.3.3 CCC.W.3.2 | Communicating Defining problems Gathering information Sharing research and writing |

Lesson Matrix Grade K-3

3R's of the Common Core

| Lesson | Leading Question | Objective | Common Core | Alignments | Skills |
|--|--|---|--|--|--|
| K-3 Machine I.B. 1 | Where do the things we use come from ? | Develop awareness of the natural origin of products we use Understand limited availability of some natural | Kindergarten CC.L.K.1.d CC.RI.K.3 CC.SL.K.2 | Grade 1 CC.L.1.6 CC.R.1.3 CC.RL1.3 CC.SL1.2 | Analyzing Asking questions Communicating Problem solving |
| | | | Grade 2 CC.I.2.5a CC.RI.2.1 CC.SI.2.3 | Grade 3 CC.L.3.5b CC.RI.3.7 CC.RI.3.3 | |
| K-3 Grandparents' Toys I.C.1 | What kinds of toys are better for our environment? | Develop understanding of the amount of material consumed to make things Develop understanding of types of materials needed to make things | Kindergarten CC.SL.K.1 CC.SL.K.4 CC.W.K.8 | Grade 1 CC.SL.1.1 CC.SL.1.4 CC.W.1.8 | Communicating Comparing multiple solutions Interviewing Sharing research and writing |
| | | Develop awareness of the impact of the things we make and the impact on solid waste | Grade 2 CC.SL2.1 CC.SL2.4 CC.W.2.8 | Grade 3 CC.SL.3.1 CC.SL.3.4 CC.W.3.4 | |
| K-3 Impressions with E.B. White I.C.2 | What does "garbage " mean to you? | Define garbage and evaluate their first understand- ing of it Develop reasoning skills by looking for more produc- tive alternative uses for archage | Kindergarten CC.RL.K.1 CC.SL.K.1 CC.W.K.3 | Grade 1 CC.RL.1.1 CC.SL.1.1 CC.SL.1.1 CC.W.1.3 | Analyzing Applying ideas to solve problems Communicating Predicting |
| | | | Grade 2 CC.RL.2.1 CC.SL.2.1 CC.W.2.3 | Grade 3 CC.RL.3.1 CC.SL.3.3 CC.W.3.3 | |
| K-3 Taking Trash Away II.A.1 | Why do we take trash away? Where does it go? How does it get there ? | Understand the importance of trash removal Learn where trash is taken to and what happens to it | Kindergarten CC.RL.K.1 CC.SL.K.1 CC.W.K.8 CC.W.K.8 CC.K.CC.5 | Grade 1 CC.RL.1.1 CC.SL.1.1 CC.W.1.8 CC.N.1.8 CC.1.MD.3 | Collaborating Collecting data Interviewing Sharing research and writing Applying mathematical concepts |
| | | | Grade 2 CC.RL2.1 CC.SL2.1 CC.W.2.8 CC.W.2.8 CC.2.MD.10 | Grade 3 CC.RL.3.3 CC.SL.3.3 CC.SL.3.3 CC.W.3.4 CC.3.MD.3 | |
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| Lesson | Leading Question | Uplective | Common Core | Alignments | JKIIIS |
| K-3 | When we throw things away, | Understand the problem society is having with | Kindergarten | Grade 1 | Collaborating |
| Come Back to Me | where do they go? | proper placement of solid waste | CC.RI.K.1 | CC.RI.1.1 | Communicating solutions |
| II.A.2 | | Inderstand that we need to find now collitions to | CC.RL.K.5 | CC.RL.1.10 | Defining problems |
| | | colice startid indi we need to initia new solations to solicit waste that won't harm the environment | CC.SL.K.2 | CC.SL.1.2 | Problem solving |
| | | | CC.W.K.2 | CC.W.1.2 | |
| | | | Grade 2 | Grade 3 | |
| | | | CC.RI.2.1 | CC.RI.3.1 | |
| | | | CC.RL.2.1 | CC.RL.3.1 | |
| | | | CC.SL.2.2 | CC.SL.3.2 | |
| | | | CC.W.2.8 | CC.W.3.4 | |
| K-3 | What happens to our trash after | Compare decomposition rates of different objects | Kinderaarten | Grade 1 | Analvzina |
| litter Garden | we throw it out? | | CC.RI.K.4 | CC.RI.1.4 | Developina models |
| | | Develop an understanding of how littering impacts | CC.SL.K.1 | CC.SL.1.1 | Investigating |
| | | the environment | CC.W.K.8 | CC.W.1.8 | Sharing research and writing |
| | | | Grade 2 | Grade 3 | |
| | | | CC.RI.2.4 | CC.RI.3.4 | |
| | | | CC.SL.2.3 | CC.SL.3.4 | |
| | | | CC.W.2.8 | CC.W.3.7 | |
| K-3 | Is some packaging better than | Recognize that some products entering the waste | Kindergarten | Grade 1 | Collaborating |
| Ena Cartons | others? | stream are more harmful to the environment than | CC.RI.K.4 | CC.RI.1.4 | Communicating solutions |
| | | others | CC.SL.K.1 | CC. SL. 1. 1 | Inventina |
| | | Develop an understanding that one can make a | CC.W.K.2 | CC.W.1.8 | Researching |
| | | difference by carefully choosing what they use | | | 0 |
| | | | Grade 2 | Grade 3 | |
| | | | CC.RI.2.4 | CC.RI.3.1 | |
| | | | CC.SL.2.3 | CC.SL.3.3 | |
| | | | CC.W.2.8 | CC.W.3.7 | |
| K-3 | What can we make with this | Recognize other uses for items we normally throw | Kinderaarten | Grade 1 | Applving ideas to solve problems |
| Yesterday's Paper | box? | away | CC.RLK.5 | CC.RL.1.1 | Collaborating |
| III.A.2 | | Create a new purpose for something being thrown | CC.SL.K.4 | CC.SL.1.5 | Designing |
| | | away | CC.W.K.2 | CC.W.1.2 | Sharing research and writing |
| | | | Grade 2 | Grade 3 | |
| | | | CC.RL.2.4 | CC.RL.3.5 | |
| | | | CC.SL.2.2 | CC.SL.3.3 | |
| | | | CC.W.2.1 | CC.W.3.2 | |

Lesson Matrix Grade K-3 3R's of the Common Core

4 3R's of the Common Core: K-3 MATRIX

Take Me Out To The Compost

Organic waste can be recycled to enrich soil.

Objective

Students will understand the cycles of a compost pile and how it is beneficial.

Method

Students will sing a song and analyze its meaning.

Materials

Chart with words of song on it, compost cycle poster, carbon and nitrogen sorting activity, blank cycle template

Subjects

Language Arts, Science, Music

Skills

Communicating, explaining, researching, synthesizing

Time

20 minutes a day for several days

Vocabulary

Compost, cycles, microbes, humus

Resources

Jenepher Lingelbach, Hands-On Nature; Vicki Cobb, Lots of Rot; Harlow Rockwell, The Compost Heap; Alvin Tressalt, The Dead Tree, Wen-Chia Tsai Parker, Kids Can Compost; Mary Appelhof, Worms Eat My Garbage: How to Set Up and Maintain a Worm Composting System; Bonnie Bright, Casey's Compost

3R's of the Common Core

Parallel Activities 4-6, Mini Compost 7-8, Making Good Compost 9-12, Microorganisms 9-12, Effective Fertilizers Information Composting Resources Environmental Education and Educational Resources Green Consumption, Consumerism and Sustainable Development



"Take Me Out To The Compost"

Take me out to the compost; Take me out to the heap. Grind me up in a food grinder; I don't care if I'm chopped into bits, 'Cause it's root root root for the microbes; If they don't live it's a shame. For it's 2, 4, 6 months I'm out to the old garden!



Leading Question

How does composting work?

Procedure

Show the poster about the cycle of compost. Ask students to try to find the connections as they sing the song. Sing "Take Me Out To The Compost" to the tune of "Take Me Out To The Ballgame." Discuss the sequence of events in the song and how they work to produce humus. Practice the song once a day at a convenient time. Each time the class sings it, they may address a different question about composting. Review the vocabulary in the song (microbes, compost, food grinder, humus). List synonyms for the words. Younger students may draw or illustrate their synonyms and vocabulary words.

- 1. How does the production of humus start the cycle over again?
- 2. Why is a food grinder beneficial?
- 3. Why would it be a shame if microbes didn't live?
- 4. How can we make sure they will thrive?
- 5. What kinds of things can you compost? (Make a list on the board.)

Evaluation

When you believe the students know the song, they can unscramble the sentences on the worksheet so that they are in order. Have the students write the answers to the questions regarding composting, that have been discussed.

Common Core Alignments KINDERGARTEN

CC.L.K.4

Language: Vocabulary Acquisition & Use

CC.RI.K.1 Reading Informational Text: Key Ideas & Details

CC.W.K.2 Writing: Text Types & Purposes

GRADE 1

CC.L.1.5 Language: Vocabulary Acquisition & Use

CC.RI.1.2 Reading Informational Text: Key Ideas & Details

CC.W.1.8 Writing: Research to Build & Present Knowledge

GRADE 2

CC.L.2.5 Language: Vocabulary Acquisition & Use

CC.RI.2.4 Reading Informational Text: Craft & Structure

CC.W.2.8 Writing: Research to Build & Present Knowledge

GRADE 3

CC.L.3.5 Language: Vocabulary Acquisition & Use

CC.RI.3.2 Reading Informational Text:

Key Ideas & Details CC.W.3.3 Writing:

Text Type and Purpose

CC.W.3.6

Writing: Text Type and Purpose

CC.W.3.7 Writing: Research to Build & Present Knowledge

Classroom Activities

- A. Read the list of compostable items in the sorting activity. Decide which category the item belongs in: carbon or nitrogen. Talk about the importance of layering these two ingredients, plus adding water to build a successful compost.
- B. Paste the blank cycle template (at the end of this lesson) onto a poster-sized paper. Ask students to paste the pictures of the missing steps to the cycle of compost. Have them label the diagram using the words from the word bank.
- C. (Challenge activity) Cut and paste the mixed-up words to the song near the picture that illustrates that step.
- D. Make a compost pile for the classroom.

See 4-6, III.C. I, Mini Compost

- E. Read and research about worms or another compost creatures. Write an informative narrative about it. Draw a picture of your compost creature. Use technology to publish a class book about your compost creatures.
- F. Watch "Rotting Watermelon Decomposition Time Lapse Footage" on YouTube, link https://www.youtube.com/ watch?v=S12zZhdOckc.
- G. Look at a copy of the school lunch menu. Highlight all the items that could be composted (fruits, vegetables and bread; no meat, cheese or dairy). Create awareness posters for the cafeteria.
- H. Have students work in small groups to design a plan that would work in the cafeteria. Where would the compost be collected? How would you make sure the students put the proper foods into the compost bucket? Who will take the compost bin outside? Who will turn the compost?
- Have students write letters or create a PowerPoint to the Principal or the school's Food Service Director about starting a composting program in the lunchroom. Encourage them to apply all the knowledge they've acquired in this lesson to convince their audience. Use technology to produce and publish.



Compost Cycle Poster



Name:

Date: _

Write the words from the text box onto your compost cycle poster. Cut out the pictures below and glue them to your poster in the proper order.

Text box: HEAT PLANTING AIR SUPPLY WASTE BREAKING DOWN FERTILIZER













From SNYCU – April, 2016

From our friends at HowWeeLearn.com

Make a Sandwich Bag Compost

April 20, 2015 by Sarah

Earth Day is coming up (April 22nd, just a few days away) making this idea perfect for today!

The idea of composting is AMAZING – taking food waste and garbage, turning it into rich soil, to then grow food again. AMAZING! But it is tough for children to really understand this. It takes time ... a lot of time. But not when you do it on a teeny tiny scale.

We made a little compost a few weeks ago, and it worked great! The kids could really get the idea for how a compost works – and best of all you only need two things:



Sandwich bags and a straw.

That's it! Well, of course your food waste, "browns" (like egg cartons), and water too.

Within a couple of weeks you will have soil.



gets mushy).

The idea is very simple. We used a small sandwich baggie with a zipper top. Then we added our items to be composted, including some vegetables and some egg cartons.

You want your compost to be about 60% egg carton and 40% food waste (veggies are fastest). Chop everything up SUPER small to speed along the process.

We zipped the top, but put a little straw in for some air.

We added a little drizzle of water (about two tablespoons or so, just so everything





Now if that is not a wonderful reminder about the importance of composting, then I'm not sure what is. Perfect for even the littlest of environmentalists!