Reduce, Reuse, Recycle Lesson Plan for Family Math & Science Family Night

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<th>Submitted by</th>
<th>Nefertari Buntin, Ronald Brown Academy</th>
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<tr>
<td>Email address</td>
<td><a href="mailto:nefertari.buntin@detroitk12.org">nefertari.buntin@detroitk12.org</a></td>
</tr>
<tr>
<td>Date Submitted</td>
<td>May 4, 2011</td>
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<td>Target Grade</td>
<td>4th Grade</td>
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<tr>
<td>Subject</td>
<td>French, Science</td>
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<td>Duration</td>
<td>60 min.</td>
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<td>Sources Consulted:</td>
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**Lesson Overview:** Students will define the terms (4 R’s): reduce, recycle, reuse, repurpose. Students will identify ways that people can reduce, recycle and reuse materials at school and at home. This lesson fits into my curriculum because it is taught in the target language that I teach (French) and it meets the Michigan Grade Level Content Expectations for Science, as well as promotes the overall Ronald Brown Academy theme of being a “Green School.”

**Learning Objectives:**

*At the end of this lesson, students will be able to:*

1) recite the recycling vocabulary in French.
2) discuss ways to recycle, reduce, reuse, and repurpose resources.
3) create a poster to show ways that they can recycle, reduce and reuse resources at home and at school using French phrases to create a diagram.

**Materials:** vocabulary word wall, French version of Scholastic News, *Allons-y!* (March/April 2011 edition) magazine (25 copies), plastic bags, recycle bin, cloth bag, plastic bottle, document camera, projector. The plastic bags, recycle bin, cloth bag, and plastic bottle are props used as examples of how to recycle, reduce or reuse materials. The teacher will guide the students in discussing how plastic bags and plastic bottles can be reused; cloth bags can be used to reduce the reliance on plastic bags; and the recycle bin can be used to demonstrate recycling various (student suggested ) items. The document camera and projector are used to project a master copy of the *Allons-y!* magazine on the wall so that the teacher can guide the students in following along with each portion of the text. The 25 copies of the *Allons-y!* magazine are for the students to conduct their post-test after instruction.

**Materials:** pre/post assessment to gauge their recycling knowledge, vocabulary word wall, French version of Scholastic News, *Allons-y!* (March/April 2011 edition) magazine (25 copies), plastic bags, recycle bin, cloth bag, plastic bottle, document camera, projector.

**Vocabulary:** recycler (to recycle), reutiliser (to reuse), reduire (reduce) a la maison (at home), a l’ecole (at school), aime la terre (love the earth), proteger la planete (protect the planet), c’est important proteger l’environnement (it is important to protect the environment), plastique (plastic), papier (paper), aluminum (aluminium), verre (glass), etc…

**World Lang. Benchmarks & GLCEs:**

1.2.N.R.b: Understand main idea of simple accessible written materials in the target language such as, textbook passages, age appropriate magazines and newspaper articles/ads, websites/internet, poetry or stories.

1.3.N.W.a: Illustrate and present materials in the target language such as an advertisement, poster, or menu.

4th Grade Science GLCE’s:

*K-7 Standard E.ES: Develop an understanding of the warming of the Earth by the sun as the major source of energy for phenomenon on Earth and how the sun’s warming relates to weather, climate, seasons, and the water cycle. Understand how human interaction and use*
of natural resources affects the environment.

E.ES.E.4 Natural Resources- The supply of many natural resources is limited. Humans have devised methods for extending their use of natural resources through recycling, reuse, and reduce.

E.ES.03.43 Describe ways humans are protecting, extending, and restoring resources (recycle, reuse, reduce.).

E.ES.03.44 Recognize that paper, metal, glass, and some plastics can be recycled.

Focus Questions:
1. Why is taking care of the environment important?
2. Define the terms: reduce, reuse and recycle?
3. How can you do your part to recycle, reduce and reuse our resources to take better care of our environment?

Pre-assessment: Teacher will have a guided discussion (as an informal pre-assessment activity) to determine the prior knowledge of the students. For example, the teacher will ask the students to define the terms recycle, reduce and reuse (oral activity only, write students’ responses on the board).

Classroom Activities:
1. Teacher will recite recycling vocabulary in French and demonstrate how to recycle, reduce and reuse resources by reading aloud and having the students echo read the article “Aime la Terre” (Love the Earth).
2. Students will list ways that they can reduce, reuse and recycle materials at home and at school by reading aloud the French version of Scholastic News, Allons-y! (March/April 2011 edition) while the students echo read along with me to become familiar with the French vocabulary; recycler (to recycle), reutiliser (to reuse), reduire (reduce), etc.
3. Next, the students will work in pairs to create a poster depicting how they can implement these recycling strategies into their homes and in school. Teacher will review ways that students can recycle to close the activity.

Assessment:
- Students can take a pre- and post-activity assessment to gauge their recycling knowledge.
- Teacher may perform an informal observation to assess their comprehension of the concepts taught (by asking the students to tell how to reduce, reuse and recycle resources). The assessment is for student self-reflection and teacher observation.
- Students will complete the magazine questionnaire which tests their knowledge in how to reduce, reuse and recycle materials at home and in school.
- Poster rubric.

Post-assessment: Students will take a post activity assessment to gauge their recycling knowledge. Teacher will perform an informal observation to assess their comprehension of the concepts taught (by asking the students to tell how to reduce, reuse and recycle resources). The assessment is purely for student self-reflection and teacher observation. Since it was a lesson designed to increase community knowledge of the importance of recycling there was no formal assessment. The students will complete the magazine questionnaire which tests their knowledge in how to reduce, reuse and recycle materials at home and in school. Their posters will also depict how they’ve internalized the lesson content.

Poster Diagram Assessment Rubric:
- **4 points:** Student was able to draw a picture and accurately label four ways of recycling, reducing or reusing materials.
- **3 points:** Student was able to draw a picture and label three ways of recycling, reducing or reusing materials with some ambiguity.
- **2 points:** Student was able to draw a picture and label two ways of recycling, reducing or reusing materials with some repetition and/or ambiguity.
- **1 point:** Student was able to draw a picture and label at least one method of recycling, reducing or reusing materials.
- **0 points:** Student did not complete the project or the picture was not relevant to the activity.

### Possible diagram poster answer choices:
- Student draws a picture of taking a shower instead of a bath (example of *reducing* water consumption),
- Student draws a picture of someone throwing a bottle away in a recycle bin (example of *recycling*),
- Student draws a picture of someone wearing a sweater and turning down the heat thermostat (example of *reducing* electricity consumption),
- Student draws a picture of eating a sandwich brought from home instead of eating at a fast food restaurant (example of *reducing* landfill or incinerator rubbish),
- Student draws a picture of someone filling a plastic water bottle from the water fountain instead of buying another bottle of water (example of *reusing* materials).

### My Reflection on Reduce, Reuse, Recycle Lesson Plan Implementation:
I taught the lesson at our annual Family Math and Science Night. Although the lesson was targeted for 4th graders I had an assortment of grade levels due to the nature of the program. Many students and parents were quite pleased to get an impromptu lesson in recycling in French! There was a lively discussion on how to reduce water usage at home (taking a shower as opposed to a bath), drinking fountain water instead of bottled water, and using recycled paper instead of non-recyclable notebooks. I observed that the parents and students had strong background knowledge of recycling procedures and were able to complete the tasks quite easily. They did have some difficulty defining recycling, reducing and reusing but with teacher scaffolding they were able to eventually arrive at the accurate definitions. The students especially enjoyed creating a recycling diagram.

In hindsight, I think that it was prudent to teach the lesson at a Family Math and Science Night since I only see my students for 45 minutes once a week. It is challenging to implement science thematic units within my curriculum with confidence of teaching them thoroughly with such time constraints. Overall, I feel that the lesson went well and the students and parents enjoyed themselves while reviewing previously learned concepts.
Aime la terre !

Protéger la planète, c'est important ! Voici des conseils pour protéger l'environnement, à la maison et à l'école.

Quelle est l'option la plus écologique ? Coche la bonne réponse.

À LA MAISON

1. Le matin :
   A. Prends un bain.
   B. Prends une douche.

2. Tu as froid ?
   A. Allume le chauffage*.
   B. Mets un pull.

3. Tu veux jeter quelque chose :
   A. Jette tous tes déchets* dans la même poubelle.
   B. Jette tous tes déchets dans des poubelles de recyclage.

4. Tu as fini* de jouer aux jeux vidéo ?
   A. Éteins la télévision et la console.
   B. Laisse la télévision et la console en veille.
À L'ÉCOLE

5 Tu as soif :
A Bois de l'eau en bouteille.
B Bois l'eau du robinet.

6 Pour l'école :
A Utilise des fournitures* en plastique non recyclables.
B Écris avec un crayon en papier recyclé.

7 Le midi :
A Mange un sandwich fait maison*.
B Mange un repas avec plein d'emballages*.

8 Ton école n'est pas loin :
A Marche ou prends ton vélo.
B Pars en voiture avec tes parents.

Coche les verbes à l'imperatif :
1 Tu manges. 2 Bois. 3 Laisse. 4 Je prends. 5 J'écris. 6 Écris.

Forme des phrases en reliant deux parties.
A Prends 1 de l'eau du robinet.
B Jette 2 la lumière et les appareils en veille.
C Bois 3 ton vélo pour aller à l'école.
D Mange 4 tes déchets dans une poubelle de recyclage.
E Éteins 5 des produits de saison.

TEST EN LIGNE
Est-ce que tu sais ce qui est bon pour l'environnement ? Fais le test en ligne :
www.maryglasgowplus.com/fr/activites