



## Children's Book of Energy

### **Overview**

Students will share what they have learned about energy by writing a Children's Book of Energy. This book will be shared with younger children in the school and later stored for check out from the school library. This is an excellent closure to a unit on energy, but it can also be used as an introductory activity to determine student's prior knowledge and to guide what they need to learn more about.

### **Objectives**

The student will use all the knowledge they have gathered and learned about energy and develop, create and publish a children's book telling younger children about energy.

**Time** Two (50 minute) class periods

### **Materials**

Construction paper

Drawing materials

Die cut capital letters for each letter of the alphabet

Select any children's pattern book for example any ABC book that has a theme, such as "Underwater ABC" or "If you give a Pig a Pancake"

If you go with an ABC book you will need chart paper with each letter of alphabet listed with a space after it for writing a topic If you go with another text you will still need chart paper to plan out the book.

### **Background**

Collect the materials to be available for reference, such as science texts, that were used during your energy unit, or, if this is an introduction, that you plan to use during the unit.

Prepare the chart paper with the letters.

List some ideas as "back ups" for the letters, especially the harder ones like Q, X, and Z, for when students have difficulty with brainstorming energy topics starting with these letters. We used "Quit wasting energy" for Q, Xeriscape gardening" for X, and "Zap energy waste" for Z. Have some pre-made samples available to share with the students.



**Procedures** (if using an ABC book, substitute as appropriate)

1. Ask students if they have ever seen an ABC book, holding up the book you have brought. Look through the book and discuss the format. Tell students that you have arranged for them to write and publish a Children's book that will be shared with younger students to help them learn about energy.
2. Provide to the children with the rubric you will be using to score their work.
3. If this is a closing activity, remind students that they have learned quite a lot about energy. Display the ABC chart or transparency and ask for help brainstorming energy topics that begin with those letters. You could begin with examples for the harder letters.
4. If this is an introductory activity, explain that they are going to be learning about energy and that you want to begin with finding out what they already know and want to learn. Then display the ABC chart or transparency and ask for ideas about energy that begin with these letters. You should start with an example of something they will be learning.
5. Students work together to come up with ideas for each of the letters. Allow students to work in pairs or groups of four.
6. They can look through the science materials to help them generate ideas. As they do, list them, even if there is more than one per letter. Students should have the freedom to use the ideas any way they decide either one concept per page or multiple concepts per page.
7. When all the letters have ideas, let students choose a page to write and illustrate. Explain that they will have to follow an ABC book pattern. Do a sample page to show what you expect. Example: L is for light. Light comes from the sun and is a kind of energy. Light travels in waves. Each page should have an illustration that reflects the text, and depending upon whether this is an introductory or closing activity, there should be supporting facts.
8. Provide students time to write a rough draft for their book to be submitted for editing. They can use the science materials for reference to check their supporting facts. While waiting for editing, they can work on illustrating their page.
9. When the writing is edited, students will write a final draft. Or, you can choose to type or have students type the final draft on the computer.
10. The students will collect and collate all the pages of their book and bind them into the "Children's Energy" book.



**For Discussion:**

Ask students if there are any other topics or facts that could have been included in their book.

**Resources**

Energy Source curriculum

Project NEED <http://www.need.org>

U.S. Dept. of Energy web site

[http://www1.eere.energy.gov/education/lesson\\_plans.html](http://www1.eere.energy.gov/education/lesson_plans.html)



## Rubric

### Story Writing : Children's Energy Book

Teacher Name: \_\_\_\_\_

Student Name: \_\_\_\_\_

CATEGORY	4	3	2	1
<b>Creativity</b>	The story contains many creative details and/or descriptions that contribute to the reader's enjoyment. The author has really used his imagination.	The story contains a few creative details and/or descriptions that contribute to the reader's enjoyment. The author has used his imagination.	The story contains a few creative details and/or descriptions, but they distract from the story. The author has tried to use his imagination.	There is little evidence of creativity in the story. The author does not seem to have used much imagination.
<b>Requirements</b>	All of the written requirements (# of pages, # of graphics, type of graphics, etc.) were met.	Almost all (about 90%) the written requirements were met.	Most (about 75%) of the written requirements were met, but several were not.	Many requirements were not met.
<b>Illustrations</b>	Original illustrations are detailed, attractive, creative and relate to the text on the page.	Original illustrations are somewhat detailed, attractive, and relate to the text on the page.	Original illustrations relate to the text on the page.	Illustrations are not present OR they are not original.
<b>Characters</b>	The main characters are named and clearly described in text as well as pictures. Most readers could describe the characters accurately.	The main characters are named and described. Most readers would have some idea of what the characters looked like.	The main characters are named. The reader knows very little about the characters.	It is hard to tell who the main characters are.