



WIND RAFT

WIND ENERGY

BRENT CUMMINGS

Time Frame:	Standards:
1-2 hours	8-9.ES.4.2.1 Explain the internal and external energy sources of the earth (654.02a)
Objectives:	
Students will demonstrate what they have learned about wind by using that information to write a RAFT.	
Background Information:	
<p>RAFT is a writing strategy that can be used in all content areas and offers students a choice in their writing assignment. R stands for Role - the person or thing that students will become. A is for Audience - the person or people who will be reading the finished product. F is for Format - the way in which the writing will be done. Examples might include letter, brochure, memo, speech, or advertisement. T stands for Topic - what the writing will discuss. Students can demonstrate their mastery of content knowledge in this manner. A RAFT allows for differentiated instruction because students get choice in their assignment based on their interest (RAFT).</p> <p>This lesson should be used as an assessment of the students understanding after learning about wind. The level of detail that they are able to incorporate into their RAFT indicates their level of understanding.</p>	
Materials:	
Projector or overhead copies of RAFT example	
Procedure:	
<p>Begin by explaining what a RAFT is to the students</p> <ul style="list-style-type: none">R – RoleA – AudienceF – FormatT – Topic <p>Ask students from the class to participate in acting out the RAFT example provided.</p> <p>Make sure that students understand that they can use any format and do not have to write their RAFT in dialogue format.</p>	



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As a class brainstorm ideas that could be used in writing a RAFT

Some possible formats are:

Role:	Audience:	Format:	Topic:
Wind Turbine	Electrons	Directions	Transmission
Reporter	Public	News Article	Wind Energy
Sea Breeze	Tourists	Travel Brochure	Wind Cycle
Realtor	Wind Turbines	Real-estate Add	Turbine Siting
Cook	Other Cooks	Recipe	Wind Formation

Assessment:

Did students complete the RAFT and show sufficient understanding?

Additional Content:

Example RAFT

References:

RAFT. Retrieved July 15, 2009, from West Virginia Department of Education Web site:
<http://wvde.state.wv.us/strategybank/RAFT.html>

The RAFT sample was taken from the NEED “Energy From the Wind Student Guide.”

WIND

Pauly Power: Welcome a band that just blew into town for this performance. Many of their electric concerts are performed in California during the summer when people need to hear their music the most. Lets hear a big Totally Energy Show welcome for Darrieus and the Wind Spinners, singing “Watts on the Wind” from their “Power Tower” album.

(Darrieus and the Wind Spinners perform their song to the tune of “Oh! Susanna.”)

ORIGINAL	PARODY
Oh, I come from Alabama With a banjo on my knee I'm a-goin' to Louisiana My true love for to see	The sun shines down to heat the lands The oceans keep their cool The hot air rises and expands Let's use that wind as fuel
Rained all night the day I left The weather it was dry Sun so hot I froze to death Susanna don't you cry	The wind blows down the mountain pass And turns the turbine blades No burning coal, or oil or gas As electric power is made
Oh! Susanna Oh, don't you cry for me For I come from Alabama With my banjo on my knee	Oh, wind power You are the fuel for me For three-fourths of every hour You make electricity

INTERVIEW

Pauly Power: What gives your band the energy to perform day and night?

Darrieus: If it weren't for the sun heating the earth unevenly, we would not be turning out our music today.

Milly: Our first big break came in Holland in the 17th century. We paid our dues, though. We really got put through the mill!

Pauly Power: I've heard your band isn't always reliable; that you don't always show up at performances. Tell me why.

Lolly: Well Pauly, that's true; we only perform about three-fourths of the time. And, even then, the energy we get from the wind isn't always strong enough for us to be heard in the back row.

Pauly Power: I hear your concert halls take up a lot of space.

Gale: That's true. Just one of our wind towers needs an acre or two. And we usually have dozens of towers on a wind farm. The good thing is you can plant crops around our wind machines or graze cattle.