

CLIMATE CHANGE COLLECTION SCORECARD

Date: 11/28/04

Reviewer: Robert Croft

Name of resource: **Carbon Dioxide: The Heat is On**

Sponsoring Organization: Teachers Experiencing Antarctica and the Arctic

URL: http://tea.rice.edu/activity/tea_activity_heat_is_on.html#Student

Site Homepage: <http://tea.rice.edu/index.html>

RESOURCE WITHIN A SITE? **Yes**

FOUND THROUGH DLESE? **Yes**

RECOMMENDATION **YES** YES WITH RESERVATIONS NO

STARS 1 2 3 **4** 5 (LAME TO STELLAR)

NARRATIVE (USE OTHER SIDE IF NEEDED)

Great Activity – Has a lot of Setup and lesson plan organizational problems, however, it is a good hands-on activity for the teaching about a difficult concept (explaining how a greenhouse gas works) that makes this worth using.

INTENDED USE

REFERENCE

COMPUTER ACTIVITY

NON-COMPUTER ACTIVITY

EDUCATOR, **LEARNER** OR BOTH (CIRCLE)

BEGINNER OR **ADVANCED** (CIRCLE)

BUGS & TECHNICAL DIFFICULTIES (PROBLEMATIC TO ROBUST)

1 **2** 3 4

COMMENTS: DLESE link dumps you directly into the lesson plan without any context. The Overview and Rationale for the lesson plan talks about phytoplankton. One objective states...“Students will determine the ability of phytoplankton to remove greenhouse gases from the atmosphere.” However, no direct tie is made to this topic in the activity’s student discussion. Also, in the lesson plan it is not clear how/why the limewater is used and when it should be used. The use of limewater is near the beginning of the lesson plans but is not used until near the end of the lab.

FACTUAL ERRORS/OMISSIONS (NATIONAL ENQUIRER TO NATIONAL GEOGRAPHIC)

1 **2** 3 4

COMMENTS: The lesson plan never ties the topic of the “Carbon Dioxide” to phytoplankton which is discussed in the “Overview” and “Rationale”. Only if you start at the author’s notes/home page do you really get the connection between the two.

PEDAGOGICAL INFORMATION

REFERENCE ONLY

TEACHER GUIDE

MATERIALS LIST

ASSESSMENT STRATEGIES

TIMEFRAME PROVIDED

STANDARDS ALIGNMENT

PROMOTES STUDENT LEARNING (WEAK TO STRONG)

1 2 3 **4**

COMMENTS: This is a robust activity that teaches very well a difficult concept about a greenhouse gas. It is well worth doing the activity even with the more difficult setup that is required and short falls of the lesson plan.

APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 **3** 4

COMMENTS: This is designed as a classroom activity or Lab. It is not an online/computer based activity. The lesson plan for teacher has some problems but the student activity is great.

VISUAL APPEAL (WEAK TO STRONG)

1 2 **3** 4

COMMENTS: Relatively easy to use site for the teacher.

TEACHING TIPS: ANNOTATION DESCRIBING HOW SITE COULD BE USED OR ADAPTED FOR CLASSROOM...

The lesson plan has a great idea for teaching how CO₂ works as a greenhouse gas. However, the order of events is not as clear as it needs to be for the teacher. **The idea is well worth the extra time needed to pull the activity together.**

RECOMMENDATION: ANNOTATION DESCRIBING HOW THE DEVELOPER COULD IMPROVE THE SITE.

1st recommendation would be to make the lesson plan a stand alone activity. Also, build in to the lesson plan (for the teacher's use) a direct link back to [Besse Dawson](#)'s notes/web page for her background info or another possibility would be to create a brief introduction for Besse Dawson's activities and/or an overview for the whole T.E.A. project.

2nd - Explain the use of limewater and the sequence of its use. It is not clear within the lesson plan how or when to use the limewater.

3rd – Overview and Rationale talk about phytoplankton and one objective states..."Students will determine the ability of phytoplankton to remove greenhouse gases from the atmosphere." However, no direct tie is made in the activity's student discussion to phytoplankton.