

Climate Change Collection Scorecard

Date: January 30, 2005

Reviewer: Jack Ganse

Name of resource: UCAR: Where in the World Is Carbon Dioxide?

Sponsoring Organization: UCAR LEARN

URL: http://www.ucar.edu/learn/1_4_2_17t.htm

Site Homepage: <http://www.ucar.edu/learn>

RESOURCE WITHIN A SITE? ☒ Y / N

FOUND THROUGH DLESE? ☒ Y / N

IF SO, WHICH COLLECTIONS? DLESE Community Collection (DCC), Community Review System (CRS)

RECOMMENDATION YES ☒ YES WITH RESERVATIONS NO

STARS 1 2 3 ☒ 4 5 (LAME TO STELLAR)

NARRATIVE (USE OTHER SIDE IF NEEDED) This site provides good background about carbon dioxide as well as its sources and sinks. Three laboratory investigations are included: Detecting Carbon Dioxide Gas, Collecting Samples of Carbon Dioxide Gas from Various Sources, and Quantifying Carbon Dioxide. There are both teacher and student guides complete with instructions and useful diagrams. Warning: Teacher preparation is extensive!

One caveat: the lesson is written as intended for grades 6-10. I believe grades 8-10 would be more appropriate.

INTENDED USE

☒ X REFERENCE

☐ COMPUTER ACTIVITY

☒ X NON-COMPUTER ACTIVITY

EDUCATOR, LEARNER OR ☒ BOTH (CIRCLE) IF FOR LEARNER, EVIDENCE ITS BEEN TESTED? ☒ Y / N

BEGINNER OR ☒ ADVANCED (CIRCLE)

Easily Printed? Y / ☒ N

BUGS & TECHNICAL DIFFICULTIES (PROBLEMATIC TO ROBUST)

1 2 ☒ 3 4

COMMENTS: One link to the Student Guide misdirected me to another lesson. Wherever "CO₂" appeared in the text, it was actually a picture rather than letters and numbers. Consequently, when I cut and pasted the text into Microsoft Word, all references to "CO₂" disappeared.

SCIENTIFIC ACCURACY- FACTUAL ERRORS/OMISSIONS (NATIONAL ENQUIRER TO NATIONAL GEOGRAPHIC)

1 2 3 ☒ 4

EVIDENCE IT HAS BEEN REVIEWED FOR ACCURACY? ☒ Y / N

COMMENTS: The information is referenced to reliable sources as well as standards. One "no-no" appeared: a phrase stating that "CO₂ traps infrared energy."

PEDAGOGICAL INFORMATION

☐ REFERENCE ONLY

☒ X TEACHER GUIDE

☒ X MATERIALS LIST

☒ X ASSESSMENT STRATEGIES

☒ X TIMEFRAME PROVIDED

☒ X STANDARDS ALIGNMENT INDICATED

PROMOTES STUDENT LEARNING (WEAK TO STRONG)

1 2 3 ☒ 4

COMMENTS: The laboratory activities are hands-on, inquiry investigations with step-by-step instructions. The labs are challenging and require students to use careful measurements and laboratory techniques. I know my students would be engaged in these activities.

APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 **3** 4

COMMENTS: The teacher guide clearly explains the preparation needed for the lab activities. The student activities are accompanied by a data table and useful diagrams showing the correct set-up of equipment.

VISUAL APPEAL (WEAK TO STRONG)

1 **2** 3 4

COMMENTS: Basic, no frills site. The background could be enhanced with some graphics that support the text. The set-up diagrams are helpful.

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

Teachers should read both the teacher guide and the student guide thoroughly before using this in the classroom. Teacher preparation is extensive, the supply list is long, but the instructions are detailed and easy to follow. These activities will take at least two block periods, or three to four standard periods, to complete.

RECOMMENDATION: ANNOTATION DESCRIBING HOW THE DEVELOPER COULD IMPROVE THE SITE. One link to the Student Guide is misdirected to another lesson. References to “CO₂” in the text should be re-coded as letters and numbers—it is not difficult to use subscripts in HTML. Both the teacher guide and student guide should be available in PDF format for optimal printing. Add graphics to support the background information.

Revised 12/3/04