

# CLIMATE CHANGE COLLECTION SCORECARD

Date: 1/28/05

Reviewer: Carrie Morrill

Name of resource: Carbon dioxide: The heat is on

Sponsoring Organization: TEA (Teachers Experiencing Antarctica and the Arctic)

URL: [http://tea.rice.edu/activity/tea\\_activity\\_heat\\_is\\_on.html#Student](http://tea.rice.edu/activity/tea_activity_heat_is_on.html#Student)

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

RESOURCE WITHIN A SITE? Y / N

FOUND THROUGH DLESE? Y / N

IF SO, WHICH COLLECTIONS? DLESE Community Collection, CRS Annotated Collection

RECOMMENDATION YES YES WITH RESERVATIONS NO

STARS 1 2 3 4 5 (LAME TO STELLAR)

NARRATIVE Activity demonstrating how greenhouse effect works using jars, heat source, thermometers, and candle. The activity is well-designed, but its presentation on this webpage could be significantly improved, including rewriting the rationale and presenting steps and information in a more logical order.

## INTENDED USE

REFERENCE

COMPUTER ACTIVITY

NON-COMPUTER ACTIVITY

EDUCATOR OR LEARNER OR **BOTH** IF FOR LEARNER, EVIDENCE ITS BEEN TESTED? Y / N

**BEGINNER** OR ADVANCED OR BOTH

Easily Printed? Y / **N**

BUGS & TECHNICAL DIFFICULTIES (PROBLEMATIC TO ROBUST)

1 2 3 4

SCIENTIFIC ACCURACY (NATIONAL ENQUIRER TO NATIONAL GEOGRAPHIC)

1 2 3 4

EVIDENCE IT HAS BEEN REVIEWED FOR ACCURACY? Y / N

COMMENTS: This is one of the most scientifically-accurate activities I've seen for explaining the greenhouse effect. The rationale stated for this activity (how phytoplankton in the Antarctic act as a CO2 sink) has several problems, including (1) this activity has nothing to do with phytoplankton and (2) photosynthesis by phytoplankton in the Antarctic is also affected by high nutrient levels.

## PEDAGOGICAL INFORMATION

REFERENCE ONLY

TEACHER GUIDE

MATERIALS LIST

ASSESSMENT STRATEGIES

TIMEFRAME PROVIDED

STANDARDS ALIGNMENT

PROMOTES STUDENT LEARNING (WEAK TO STRONG)

1 2 3 4

APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 3 4

COMMENTS: Formatting and organization could be improved to make it easier to follow. Lots of information about limewater solutions, but you don't learn until end of page that limewater is optional part of experiment. Index at top of page is useless because it has too many contents with generic labels. Diagram of experimental set-up is confusing because it has labels about algae that don't relate to this experiment.

VISUAL APPEAL (WEAK TO STRONG)

1 2 3 4

TEACHING TIPS: Limewater and probes are optional, and are only used to show that carbon dioxide levels are higher in the jar with the candle. This is a good activity, you might have to read through the instructions a couple times to fully understand them and eliminate unnecessary information.

RECOMMENDATIONS FOR DEVELOPER: Reformat and reorganize.