

CLIMATE CHANGE COLLECTION SCORECARD

Date: 1/28/05

Reviewer: Carrie Morrill

Name of resource: The greenhouse effect in a jar

Sponsoring Organization: The Franklin Institute

URL: <http://sln.fi.edu/tfi/activity/earth/earth-5.html>

Site Homepage: <http://sln.fi.edu/>

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, and thermometers. The activity described under "Going Further" is more scientifically accurate than the main activity.

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: The reason why the jar warms (suppressed convection) is unrelated to the greenhouse effect and might promote misconceptions. The activity labeled "Going further" involving two jars, one with carbon dioxide and one without, is more accurate.

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: Hands-on activity. Be sure to talk about the limitations of the experiment in representing what is really happening in the atmosphere.

APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 3 4

COMMENTS: Could be formatted differently to be easier to read. A graphic showing experimental set-up would be useful.

VISUAL APPEAL (WEAK TO STRONG)

1 2 3 4

TEACHING TIPS: If you use the main activity, be sure to talk about how the experiment does not completely represent what happens in the atmosphere. I would recommend doing the experiment labeled "Going further."

RECOMMENDATIONS FOR DEVELOPER: Focus on experiment labeled "Going further." Give teachers suggestions on where to obtain carbon dioxide.