

# CLIMATE CHANGE COLLECTION SCORECARD

Date: 1/29/05

Reviewer: Ellen DeBacker

Name of resource: Albedo experiment for factor that influence a greenhouse

Sponsoring Organization: UCAR

URL: [http://www.ucar.edu/learn/1\\_3\\_2\\_13t.htm#top](http://www.ucar.edu/learn/1_3_2_13t.htm#top)

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

RESOURCE WITHIN A SITE? **Y** / N

FOUND THROUGH DLESE? **Y** / N

IF SO, WHICH COLLECTIONS?

**RECOMMENDATION** **YES** YES WITH RESERVATIONS NO

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

NARRATIVE (USE OTHER SIDE IF NEEDED)

See teaching tips too. Looks good at creating understanding of what albedo is. May not be best for understanding how albedo works within the global warming condition as a world wide situation.

## INTENDED USE

\_\_\_ 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 No problems

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

1 2 3 4

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

COMMENTS Assume UCAR and EPA report based off of reviewed. Not extremely clear on how albedo fits in with heating of atmosphere. I think it is because it is a simpler explanation and the clear links are not there with this complex mechanism.

## 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 Would depend on the discussion following the lab, if the ties to global warming are talked about and how the model is a good one and a poor one for showing albedo effects.

## APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 3 **4**

COMMENTS For what it is showing.

## VISUAL APPEAL (WEAK TO STRONG)

1 2 3 **4**

COMMENTS

Very good graphics on design of lab.

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

Need to be aware of the time frame. It is listed as a 60 minute activity, but most classes are approx. 45 minutes long. I would want to test the process to see if the lamps available would be able to evenly heat the 6 bottles at one time. I also would want to be sure all the materials were at room temperature to start with, especially if students are putting the items in the bottles as part of their lab. The paint job would also need to be very even for the bottles in order to compare results.

What would happen with this experiment if it was done without bottles but in the open air. Clouds could be cotton batting. Are the results not clear enough? It would seem more applicable to real life than the bottles and greenhouse comparison that creates problems in understanding.

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

Revised 12/3/04