

CLIMATE CHANGE COLLECTION SCORECARD

Date: 11/28/04

Reviewer: Carrie Morrill

Name of resource: Bad Greenhouse

Sponsoring Organization: Prof. Alistair Fraser, Professor Emeritus of Meteorology, Penn State

URL: <http://fraser.cc/BadScience/Bad/BadGreenhouse.html>

Site Homepage: <http://fraser.cc>

RESOURCE WITHIN A SITE? Y / N

FOUND THROUGH DLESE? Y / N

IF SO, WHICH COLLECTIONS? DLESE Community Collection

RECOMMENDATION YES YES WITH RESERVATIONS NO

STARS 1 2 3 4 5 (LAME TO STELLAR)

NARRATIVE Retired professor of meteorology addresses some misconceptions about the greenhouse effect. Explains why the greenhouse effect and global warming are not the same thing and why it is incorrect to say that the atmosphere traps radiation, reradiates, or behaves like a greenhouse. If you can get past the somewhat condescending tone, this webpage will challenge the way you think about the greenhouse effect.

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

COMMENTS: Link to FAQ did not work the first time I tried it.

SCIENTIFIC ACCURACY (NATIONAL ENQUIRER TO NATIONAL GEOGRAPHIC)

1 2 3 4

EVIDENCE IT HAS BEEN REVIEWED FOR ACCURACY? Y / N

COMMENTS: Some readers have taken issue with Prof. Fraser's assertion that the Earth receives energy from two sources: the atmosphere and the sun (see FAQ). In particular, they would like him to additionally point out that the atmosphere's energy originally came from the sun. In my opinion, both sides make good points: Prof. Fraser's assertion is a useful and accurate way of understanding the greenhouse effect, but it is also necessary to understand how the atmosphere gains energy.

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: Some diagrams would be useful to illustrate several points. In particular, it would have been helpful to show the common, but inaccurate, diagram of the Earth's radiative budget with infrared radiation from the Earth's surface being reflected off of clouds.

VISUAL APPEAL (WEAK TO STRONG)

1 2 3 4

TEACHING TIPS: This is a useful site for teachers to read before teaching a unit on the greenhouse effect.

RECOMMENDATIONS FOR DEVELOPER: See multimedia design comments above. Eliminate words such as "nonsense" and "silly."