

CLIMATE CHANGE COLLECTION SCORECARD

Date: March 7, 2005

Reviewer: Kirsten Butcher

Name of resource: (NARST paper) Children's misconceptions about weather: A review of the literature

Sponsoring Organization: N/A – this is a paper that was presented at the annual meeting of the National Association of Research in Science Teaching (NARST), New Orleans, LA, April 29, 2000

URL: <http://www.csulb.edu/~lhenriqu/NARST2000.htm>

Site Homepage: N/A

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)

- The paper provides an interesting and useful review of misconceptions about weather found in the scientific literature.
- Common student misconceptions are documented and possible sources for such misconceptions are listed when possibilities can be reasonably identified.
- This paper also lists some concepts that have been identified as misconceptions in the literature but are technically correct according to consultation with an expert.
- This paper could provide useful overviews on student thinking for beginning and even experienced educators. It could also provide a basis for discussions and professional development activities among educators.

INTENDED USE

REFERENCE

COMPUTER ACTIVITY

NON-COMPUTER ACTIVITY

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

BEGINNER OR ADVANCED (CIRCLE) – I think all educators would be interested in the paper, even if it only refreshes or solidifies their understanding of student thinking.

Easily Printed? Y / **N** – As an HTML file, probably not. A PDF would be much better for printing (especially given the large tables in the text).

BUGS & TECHNICAL DIFFICULTIES (PROBLEMATIC TO ROBUST)

1 2 3 **4**

COMMENTS – None found.

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

1 2 3 **4**

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

COMMENTS – An expert reviewer (qualifications given) reviewed all misconceptions for accuracy.

PEDAGOGICAL INFORMATION

REFERENCE ONLY

TEACHER GUIDE

MATERIALS LIST

ASSESSMENT STRATEGIES

TIMEFRAME PROVIDED

STANDARDS ALIGNMENT INDICATED

PROMOTES STUDENT LEARNING (WEAK TO STRONG)

1 2 **3** 4

COMMENTS – Use of this paper potentially could influence student learning by giving educators useful insight into common student thinking. The paper also could inform educator's considerations of lab activities, discussion topics, and lesson plans, by highlighting misconceptions that student could have or could take away from instruction.

APPROPRIATE/EFFECTIVE MULTIMEDIA DESIGN (WEAK TO STRONG)

1 2 3 4

COMMENTS – This is not really an appropriate category for this text-only paper. A few hyperlinks exist to relevant websites, but otherwise multimedia is not a focus here.

VISUAL APPEAL (WEAK TO STRONG)

1 2 3 4

COMMENTS – As a paper, it is rather low on overall visual appeal but the text is organized and the tables provide a logical organization to the content that is easy to read and navigate.

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

Educators can use information on common student misconceptions to choose lessons or activities that combat common misconceptions. Educators could also use the given information to collaboratively plan interventions and assessments to counteract misconceptions across a student's educational experience. Finally, this relatively complete list of misconceptions may help educators identify and categorize the varied student thinking that they encounter.

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

N/A

Revised 12/3/04