Geophysical Research Abstracts, Vol. 8, 10438, 2006 SRef-ID: 1607-7962/gra/EGU06-A-10438 © European Geosciences Union 2006



Kinesthetic Astronomy: an Experiential Approach to Teaching Earth & Space Science Concepts

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Kinesthetic Astronomy® lessons offer innovative ways to teach basic astronomical concepts through choreographed bodily movements and positions that provide educational sensory experiences. The lessons are science-rich and fun. They confront common misconceptions in astronomy through asking the learner to rotate, revolve, tilt, bend, twist, and perceive in new ways. They are designed for sixth year students up through adult learners in both formal and informal educational settings, but many educators have modified them to be developmentally appropriate for younger learners. The lessons emphasize astronomical concepts and phenomenon that people can readily encounter in their "everyday" lives such as time, seasons, and sky motions of the Sun, stars, and planets. Kinesthetic Astronomy lesson plans are fully aligned with the latest research on how people learn. Field testing with non-science undergraduates, secondary science teachers, middle grade students, youth groups, museum & planetarium educators, and outdoor educators has been providing evidence that kinesthetic astronomy techniques allow learners to achieve a good intuitive grasp of concepts that are much more difficult to learn in more conventional ways such as via textbooks, lecture, or even animation.