

Development of the KEEP Activity Guide

The development of the KEEP Energy Education Activity Guide, or Activity Guide for short, occurred in six stages. Each of these stages included an evaluation process to ensure that the Activity Guide successfully promotes energy education. KEEP's Steering Committee, along with the Energy Advisory Review Committee, played an integral role in most of the reviews. See the **Acknowledgments** for names of individuals involved in each of the evaluation processes.

Stage 1: Conceptual Framework. Based on a review of existing frameworks and energy education resources, KEEP staff drafted a conceptual framework.

Evaluation Process. Focus groups, consisting of energy professionals and educators, critiqued the framework. The framework was revised and finalized based on their suggestions.

Stage 2: Scope and Sequence. KEEP conducted the Building an Energy Education Curriculum Workshop, inviting K-12 teachers from around Wisconsin. These educators expanded the conceptual framework into a scope and sequence, identifying the grade levels and subject areas in which the concepts should be introduced, developed, and mastered. Participants also reviewed existing energy curriculum and activity guides to identify potential activities to fit within the newly developed scope and sequence.

Evaluation Process. The drafted scope and sequence along with the conceptual framework were sent to the Steering Committee and revised based on their comments. KEEP's A Conceptual Guide to K-12 Energy Education in Wisconsin was published.

Stage 3: Activity format. KEEP staff developed an activity format to be used as a template (see **Activity Format** on page 14). Activities that fit within KEEP's scope and sequence were written to comply with the format's parameters.

Evaluation Process. The Energy Advisory Review Committee confirmed that the format provides teachers with essential information.

Stage 4: Activities. KEEP activities were selected based on reviews of published energy education resources conducted by Wisconsin K-12 teachers. These teachers drafted, reviewed, and revised activities. Because there are effective energy education resources already in existence, KEEP obtained permission to adapt many of its activities from published materials.

Evaluation Process. Content Review. After activities were drafted, they were reviewed for content accuracy. An expert in a field relevant to the concepts in the activity evaluated its **Background** and **Procedure** for content thoroughness and accuracy. Activities were revised based on these professionals' recommendations. Piloting and Teacher Review. Each activity was given to a classroom teacher to review or to test in a classroom. Teachers were given a review form developed by KEEP staff that guided them in assessing the activity for grade-level appropriateness, ease of accomplishment, and success in achieving intended objectives. KEEP staff once again revised the activities based on the reviewers' suggestions.

Stage 5: Activity Guide. After the activities were revised, they were put in table of contents order. The KEEP staff then drafted the front and back matter for the guide (Introduction and Appendix).

Evaluation Process. The Steering Committee, the Energy Advisory Review Committee, and classroom teachers conducted a comprehensive review of the guide. The purpose of this review was (1) to examine the extent to which important energy concepts were covered in the activities and (2) to assess the guide's cohesiveness and level of organization. KEEP staff then made final revisions to the guide.

Stage 6: Pilot and Revise. The first publication of the KEEP Activity Guide was piloted by 600 teachers throughout Wisconsin.

Evaluation Process: Each teacher reviewed two activities. KEEP staff used their comments to revise the guide. Current users of the guide are encouraged to complete and send the review form in the back of the guide to the KEEP office.

Dissemination of KEEP

The KEEP Activity Guide is being distributed through university-credited teacher inservice classes. Educators and energy professionals attended a workshop in May 1997 to learn about the guide and to help develop the inservice class. These workshop participants have been selected to serve as outreach professors associated with the University of Wisconsin-Stevens Point and to offer the courses in various facilities around the state of Wisconsin. Thousands of K-12 teachers have participated in KEEP courses since 1997. The course, NR 730, Environmental Education Curriculum Resources, KEEP, is designed for teachers who want to experience it today and teach it tomorrow. The course content is appropriate for teachers of Science, Mathematics, Social Studies, Language Arts, Technology Education, and Family Living and Consumer Education, or for anyone who wants to promote energy as part of his or her environmental education curriculum. The course is offered throughout the year in various locations around the state. For times and dates contact Wisconsin K-12 Energy Education Program, LRC, University of Wisconsin-Stevens Point, Stevens Point, Wisc. 54481. Phone: 715.346.4770. Email: energy@uwsp.edu
Web: www.uswp.edu/keep