Project Learning Tree

Energy & Society

Correlations to NH's Curriculum Framework for Mathematics

December 2008

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HOW TO USE THIS HANDBOOK

The purpose of this handbook is to assist educators who are reviewing and revising their mathematics curricula. The primary audience is classroom teachers, curriculum specialists, and curriculum committees. The handbook is divided into three sections, as follows:

- **<u>PART I</u> lists each PLT activity in the *Energy & Society* Activity Guide, followed by the standards from the NH Mathematics Curriculum Framework (K-12) with which it is aligned.**

  Use Part I if you have a particular PLT activity in mind and want to know how it correlates with the state curriculum standards. Or, to find an appropriate activity to meet your needs, use PLT's "Topic Index" to select several potential activities to supplement your unit. To determine which state standards correlate with these activities, find the number and name of each activity in this handbook. Select an activity based on your objectives for your unit and the degree to which the activity correlates with appropriate standards. Each PLT activity is indicated by activity number and name and is followed by the strand and stem for each framework that is correlated to that activity.

- **<u>PART II</u> lists individual state curriculum standards from the NH Mathematics Curriculum Framework (K-12), followed by the PLT *Energy & Society* activities that meet the individual standards.**

  Use Part II if you have a particular curriculum standard in mind and want to find an activity that meets this standard. Then read about the activities in your PLT guide to determine the one most suitable for your particular situation.

  All mathematics strand and stem numbers (the big ideas in each strand) are listed. Following each standard, the PLT activities aligned with that standard are identified by number and name.

- **<u>PART III</u> is a chart that lists each PLT activity in the *Energy &Society* Activity Guide and the standards from the NH Mathematics Curriculum Framework (K-12) with which each activity is aligned.**

  Note: Throughout this handbook, the strands are abbreviated as follows:

  N&O – Number and Operations
  G&M – Geometry and Measurement
  F&A – Functions and Algebra
  DSP – Data, Statistics, and Probability
  PRP – Problem Solving, Reasoning, and Proof
  CCR – Communication, Connections, and Representations

METHODOLOGY
2008 Mathematics Correlation

NH's curriculum standards have undergone substantial change in response to the federal No Child Left Behind Act. The former state standards were written for the end of grades three, six and ten. To meet new formalized assessment requirements, the NH Mathematics Curriculum Framework (K-12), approved in June 2006, addresses content and skills, and is divided into grade level expectations (GLEs) for grades K-8, and grade span expectations (GSEs) at the high school level.

The NH Mathematics Curriculum Framework (K-12) contains the following components:

- Strand: There are six strands that are consistent across grade levels: Number and Operations (N&O), Geometry and Measurement (G&M), Functions and Algebra (F&A), Data, Statistics, and Probability (DSP), Problem Solving, Reasoning, and Proof (PRP), and Communication, Connections, and Representations (CCR).
- Stem: These communicate the main curricular focus, or big ideas, at each grade level, and are the same or similar across grades K-12.

For each strand, the associated proficiencies were consulted to help inform the degree of correlation of the broader strand with each activity; a match of at least one proficiency was required to indicate a correlation. The following elements of each activity helped to focus the correlation process:

- The subject identifier in the sidebar determined whether the activity was correlated to the mathematics frameworks; if math is not listed, the activity was not addressed.
- The activity objectives in the sidebar and the activity description informed which curriculum and proficiency standard(s) are related to the activity.

Note: Any attempt to correlate universal curriculum standards and a single curriculum program involves subjectivity. Two important steps were taken to limit bias. First, the author applied this rigorous methodology to determine correlation. Second, drafts were peer-reviewed by PLT-trained elementary, middle, and high school teachers. Reviewers' most common finding was that PLT activities lend themselves to modification, and in so doing, would meet many more standards than indicated. NHPLT chose, however, to correlate based on a strict interpretation of the activities, as they are written.