At our elementary school, we have an Environmental Science focus. Our Facilitation Team identified the fourth grade team as being furthest along in theme integration so they were asked to be the Pilot Team and model theme-based curriculum mapping for the school.

The fourth-grade teachers were asked to bring their existing maps and materials to a meeting to spark thinking about the theme and to serve as a lens for our mapping activity. The group began by identifying broad topics related to our school’s theme...

We started by just brainstorming broad topics related to Environmental Sciences. Surprisingly we quickly came up with quite a list.

- Land and physical features
- Weather characteristics and patterns
- Global and environmental issues
- Land use and farming
- Conservation and sustainability
- People’s impact on the earth
- And the earth’s impact on people

I then asked the team to update their current curriculum maps by incorporating theme-based content. The updated curriculum map that they build will serve as a model for other grade-level teams in our school. The map needs to address the core content areas, indicate opportunities for integrating environmental concepts, and identify “key questions” which can help provide a framework for the unit. Once complete, I will ask the team to share their map as well as their process with other grades to scale our effort.

To prepare for our first meeting, the team identified units, about 4 weeks in length that they generally teach during the same time period. We took a jigsaw approach, with each teacher selecting one subject are to focus on.

Measurement and Geometry

Persuasive Writing
SOCIAL STUDIES TEACHER  Westward Expansion

SCIENCE TEACHER  Electricity and Magnetism

MATH TEACHER  We usually map our subject area units separately but this time we brought them together so that we could create a master map for all four core content areas.

SOCIAL STUDIES TEACHER  For our new map we added rows for the two new components we had been asked to address: Key Questions and Connection to Environmental Sciences.

ENGLISH LANGUAGE ARTS TEACHER  We also added probes we were asked to consider as a team, specifically, Students will..., I will have students..., and Students may... The suggested probes helped us differentiate between the skills students will learn and how we will build them into our instructional practices.

MATH TEACHER  We each added our individual maps.

SCIENCE TEACHER  Once we had our units on a master map, we looked at each component, using the probes to guide us.

ENGLISH LANGUAGE ARTS TEACHER  We knew this map would be used as a model for staff, so we made an effort to provide more detail and highlight any opportunities we saw for incorporating higher order thinking skills.

MATH TEACHER  We first looked at our SKILLS component, using the probe Students will ....

SCIENCE TEACHER  We realized that the information on our maps didn’t always include actual skills. To clarify that students should apply higher order thinking skills, we tried to stay away from words like understand which can be difficult to assess, but included action words like demonstrate, use, explain, infer, formulate, compare, contrast, and generate.

ENGLISH LANGUAGE ARTS TEACHER  We realized that we had the same challenge with the Activities component and made similar adjustments. That way we could be sure our roles as teachers were described.

SCIENCE TEACHER  Not only had we identified logical connections to the theme, we also found real-world examples that we think could make the units more accessible to the students.

SOCIAL STUDIES TEACHER  It was helpful to brainstorm the big ideas for each content area, and to be clear about what we wanted students to walk away with at the end of each unit.

PROJECT DIRECTOR  Participating in this process helped the team identify opportunities to reinforce important concepts across disciplines as well as ways to introduce new ones.
ENGLISH LANGUAGE ARTS TEACHER: We all agreed that we would try to reinforce concepts in other subject areas, especially where we saw logical connections.

SCIENCE TEACHER: For example, using persuasive writing in science and social studies.

ENGLISH LANGUAGE ARTS TEACHER: Using descriptive writing in science—that worked because it would be the next unit to cover in English.

SCIENCE TEACHER: We also saw multiple opportunities to connect across subjects and reinforce content or skills.

MATH TEACHER: Next, we developed key questions that would help frame the units but also be broad enough to let other subjects hook in.

SCIENCE TEACHER: We found the key questions really helped tie everything together, plus they gave us additional ways to see links to the theme in different subject areas.

ENGLISH LANGUAGE ARTS TEACHER: Mapping across the subjects and developing key questions have helped me become better at exploring ways to plan for context and skills-based content.

My unit on persuasive writing always felt fragmented. Now I’m going use the key questions as a framework. I may have students select a role from westward expansion—settler or someone back East—and write from that perspective.

MATH TEACHER: We can tie in our math unit on measurement by having students measure and chart the distances they travel during their journey. I see we can also easily tie these into the Environmental Science activities we already identified!

PROJECT DIRECTOR: The Pilot Team also recognized the need to reexamine the standards addressed and their assessments. By making some minor adjustments to the Skills and Activities, and including some higher order thinking skills, they can cover more standards and reinforce some critical skills.

SOCIAL STUDIES TEACHER: During our next planning session we also plan on looking at our assessments. We want to expand our assessments to include pretests, our observations, student group discussions, and how students are revising and editing their own work.

ENGLISH LANGUAGE ARTS TEACHER: Working as a community of practice has really helped us integrate our theme and build stronger connections across subject areas.

MATH TEACHER: The real-life connections we get from theme integration will make learning deeper and more interesting for us and for the students.