Making a Treehouse Webpage and National Science Standards for High School Students

Summary

- Conducting scientific investigations and building a treehouse webpage meets or could meet almost all of the National Science content Standards for Grades 9-12
- Conducting scientific investigations of various types and building a treehouse
 webpage to illustrate the research process and conclusions drawn fits extremely
 well with shifting emphasis in the national science standards from focusing on
 specific knowledge and practices to focusing more on the scientific inquiry
 process and sharing and applying knowledge beyond the confines of the science
 classroom.

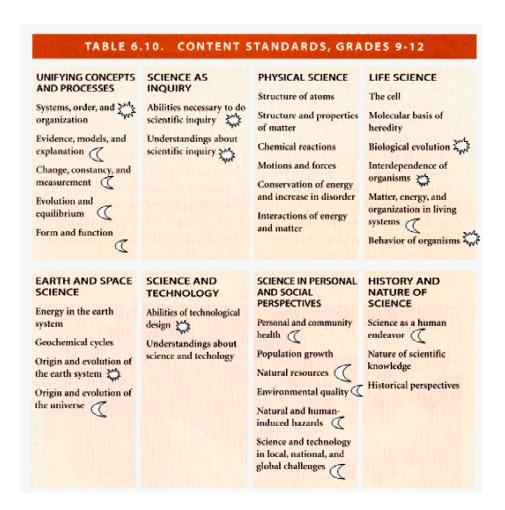
National Content Standards



= Treehouse building definitely meets this standard



= Treehouse building could meet this standard depending upon research problem



Above and below from the National Science Teachers Association Website http://books.nap.edu/html/nses/6a.html

The National Science Standards published in 1996 reflect a changing national emphasis from learning facts and figures to a focus on inquiry-based learning and mastery of broader scientific concepts.

Changing Emphases

The *National Science Education Standards* envision change throughout the system. The science content standards encompass the following changes in emphases:

Less Emphasis On	More Emphasis On
Knowing scientific facts and information	Understanding scientific concepts and
Knowing scientific facts and information	developing abilities of inquiry
Ctuduing publicat matter dissiplines	
Studying subject matter disciplines	Learning subject matter disciplines in the
(physical, life, earth sciences) for their own	context of inquiry, technology, science in
sake	personal and social perspectives, and
Opposition asian as lunguidades and	history and nature of science
Separating science knowledge and	Integrating all aspects of science content
science process	Otrobina a facción de cantal a signa a
Covering many science topics	Studying a few fundamental science
	concepts
Implementing inquiry as a set of processes	Implementing inquiry as instructional
	strategies, abilities, and ideas to be
OUANONO EMPUACEO	learned
CHANGING EMPHASES TO PROMOTE INQUIRY	
Less Emphasis On	More Emphasis On
Activities that demonstrate and verify	Activities that investigate and analyze
science content	science questions
Investigations confined to one class period	Investigations over extended periods of
	time
Process skills out of context	Process skills in context
Emphasis on individual process skills	Using multiple process skills
such as observation or inference	manipulation, cognitive, procedural
Getting an answer	Using evidence and strategies for
	developing or revising an explanation
Science as exploration and experiment	Science as argument and explanation
Providing answers to questions about	Communicating science explanations
science content	
Individuals and groups of students	Groups of students often analyzing and
analyzing and synthesizing data without	synthesizing data after defending
defending a conclusion	conclusions
Doing few investigations in order to leave	Doing more investigations in order to
time to cover large amounts of content	develop understanding, ability, values of
	inquiry and knowledge of science content

CHANGING EMPHASES TO PROMOTE INQUIRY	
Less Emphasis On	Less Emphasis On
Concluding inquiries with the result of the	Applying the results of experiments to
experiment	scientific arguments and explanations
Management of materials and equipment	Management of ideas and information
Private communication of student ideas	Public communication of student ideas and
and conclusions to teacher	work to classmates