

ELF and the Vermont Framework of Standards and Learning Opportunities

This summary outlines the **Vital Results** and **Fields of Knowledge** standards that students may address through each year-long ELF theme (*Adaptations, Habitats, Cycles, Designs of Nature, and Earth & Sky*) by participation in classroom activities, outdoor exploration, and various extensions described in each ELF unit. ELF also exposes students to a number of the **Learning Opportunities** and **Best Practices** outlined in the *Vermont Framework*. Students, community volunteers and teachers explore and learn together through observations, investigations and multi-disciplinary approaches. ELF volunteers display scientists' habits of mind. Students have the opportunity for frequent interactions with the natural world. Students learn in small and large groups both in the classroom and outdoors. ELF encourages students to make connections between their lives and the world beyond the school yard.

Vital Results

<p><i>Communication</i> <u>Reading</u>: 1.1 - 1.3 (strategies; accuracy; comprehension). <u>Writing</u>: 1.5 - 1.9, 1.23 (dimensions; conventions; responses to literature; reports; narratives; poetry). <u>Listening</u>: 1.13 - 1.14 (clarification & restatement; critique). <u>Expression</u>: 1.15 - 1.17 (speaking; artistic dimensions; notation & representation). <u>Information Technology</u>: 1.18 -1.20 (research; informational sources; communication of data).</p>	<p><i>Reasoning and Problem Solving</i> <u>Questioning</u>: 2.1 (types of questions). <u>Problem Solving</u>: 2.2 – 2.3; 2.5; (process; types of problems; mathematics dimensions). <u>Approach</u>: 2.6 - 2.9 (application; information; taking risks; persevering). <u>Abstract & Creative Thinking</u>: 2.10 - 2.14 (fluency; elaboration; flexibility; product/service; planning/organization).</p>
<p><i>Personal Development</i> <u>Worth & Competence</u>: 3.3 (respect). <u>Making Decisions</u>: 3.7; 3.9 (informed decisions; sustainability). <u>Relationships</u>: 3.10 - 3.11; 3.13 - 3.15 (teamwork; interactions; roles & responsibilities; dependability & productivity; career choices).</p>	<p><i>Civic/Social Responsibility</i> <u>Service</u>: 4.1 - 4.2 (service; democratic processes). <u>Change</u>: 4.5 - 4.6 (continuity & change; understanding place).</p>

Fields of Knowledge

<p><i>Arts, Language, and Literature</i> <u>Critical Response</u>: 5.5; 5.7 (point of view; audience response). <u>Literature and Media</u>: 5.8; 5.10; 5.12 (types of literature; diverse literary traditions; literate community). <u>Artistic Process</u>: 5.22; 5.24 (intent; artistic problem solving) <u>Elements, Forms, and Techniques in the Arts</u>: 5.28 - 5.30; 5.33 - 5.35 (artistic proficiency; visual arts; theater).</p> <hr/> <p><i>History and Social Sciences</i> <u>History</u>: 6.4; 6.6 (historical connections; being a historian). <u>Geography</u>: 6.7 (geographical knowledge).</p>	<p><i>Science, Mathematics, and Technology</i> <u>Inquiry, Experimentation and Theory</u>: 7.1 -7.3; 7.5 (scientific method; investigation; theory; roles and responsibilities). <u>Mathematical Understanding</u>: 7.6 - 7.7; 7.9 (arithmetic concepts; geometric & measurement concepts; statistics). <u>Mathematical Problem Solving</u>: 7.10 (applications). <u>Systems</u>: 7.11 (analysis). <u>Space, Time, and Matter</u>: 7.12 (matter, motion, forces, & energy). <u>The Living World</u>: 7.13 (organisms, evolution, and interdependence). <u>The Universe, Earth, and the Environment</u>: 7.15 (theories, systems, and forces). <u>Design & Technology</u>: 7.16; 7.19 (natural resources; designing solutions).</p>
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