

Charlotte Central School Action Plan Fall, 2011 –June, 2014

Focus Area: Science

Overarching Goal:

The goal of the CCS Science Instructional Program is to provide all students with robust, current, research based science instruction.

Needs Assessment:

NECAP results: 4th graders: 76% were Proficient and 4% were Proficient with Distinction

8th graders: 47% were Proficient and 0% were Proficient with Distinction

Spring 2011 - Percentage of Correct Responses on Science NECAP Domains

	Physical	Earth and Space	Life	Inquiry
4 th Grade	75%	69%	80%	54%
8 th Grade	57%	61%	63%	53%

Goal 1:

All CCS students will increase their mastery of the Vermont Science Grade Expectations as measured on the Science NECAP at grades 4 and 8.

	Year 1 (2011-12)	Year 2 (2012-13)	Year 3 (2013-14)
Action Step / Strategies:	<ul style="list-style-type: none"> Continue student and teacher use of science notebooks (5-8 with an emphasis on recording learning and content knowledge) 	<ul style="list-style-type: none"> Continue student and teacher use of science notebooks (5-8 with an emphasis on constructing meaning and applying content) 	<ul style="list-style-type: none"> Continue student and teacher use of science notebooks (5-8 with an emphasis on non-fiction writing using CCS Standards of Practice)

	<ul style="list-style-type: none"> • Refine and continue use of formative science assessment probes to assess student learning and identify misconceptions to guide instruction (5-8) • Teachers (3-8) will introduce the use of NECAP released tasks to provide students with practice and familiarity with standardized test-taking strategies and formats • Grade 2 teachers will increase their familiarity with NECAP science released tasks through item analysis • Collaboratively analyze the results of the NECAP Science Assessment (K-8) by grade level teams to inform future instruction with a focus on physical science and Earth/Space strands 	<p>knowledge)</p> <ul style="list-style-type: none"> • Refine and continue the use of formative science assessment probes to assess student learning and identify misconceptions to guide instruction (5-8) • Introduce student and teacher use of formative science assessment probes (1-4) • Teachers (3-8) will continue to use NECAP released tasks to provide students with practice and familiarity with standardized test-taking strategies and formats • Continue to collaboratively analyze the results of the NECAP Science Assessment and local CSSU inquiry assessments by grade level teams to inform future instruction (focus to be determined based on NECAP results) 	<p>[SoP] in writing)</p> <ul style="list-style-type: none"> • Introduce student/teacher use of elements of science notebooks (1-4 with an emphasis on recording learning, explaining content, and collecting vocabulary) • Refine and continue the use of formative science assessment probes to assess student learning and identify misconceptions to guide instruction (1-8) • Teachers (3-8) will continue to use NECAP released tasks to provide students with practice and familiarity with standardized test-taking strategies and formats • Continue to collaboratively analyze the results of the NECAP Science Assessment and local CSSU inquiry assessments by grade level teams to inform future instruction (focus to be determined based
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	<ul style="list-style-type: none"> CCS Science committee will meet regularly to update the alignment of Science GEs with CSSU curriculum at each grade level 	<ul style="list-style-type: none"> CCS Science committee will meet regularly to establish standard criteria for science notebook use by: <ul style="list-style-type: none"> -- Identifying common components of the notebook (K-8) --Identifying common -- language/vocabulary and representations (K-8) --Identifying developmentally appropriate standardized language of inquiry (K-4) 	<p>on NECAP results)</p> <ul style="list-style-type: none"> CCS Science committee will meet regularly to: <ul style="list-style-type: none"> -- support staff in the implementation of science notebooks within the classroom. -- Assess time allotments for science instruction (K-8)
Measurable Objectives / success indicators:	Completed K-8 Science GE document	Completed K-8 Science Notebook document	Components of science notebook document are implemented consistently
	<ul style="list-style-type: none"> The percentage of 4th graders who are proficient and above on the Science NECAP will increase to 85% over the next three years. The percentage of 8th graders who are proficient and above on the Science NECAP will increase to 65% over the next three years. Science committee meeting and staff meeting schedules, agenda, notes 		
Resources Required:	<ul style="list-style-type: none"> Published NECAP released items Adequate meeting time for science committee (1hr/ month minimum) Master schedule and meeting structures that 	<ul style="list-style-type: none"> Published NECAP released items Adequate meeting time for science committee (1hr/ month minimum) Master schedule and meeting structures that 	<ul style="list-style-type: none"> Published NECAP released items Adequate meeting time for science committee (1hr/ month minimum) Master schedule and meeting structures that

	<p>provide necessary collaborative time</p> <ul style="list-style-type: none"> • Published resources • Science teacher leaders • Curriculum director 	<p>provide necessary collaborative time</p> <ul style="list-style-type: none"> • Published resources • Science teacher leaders • Curriculum director 	<p>provide necessary collaborative time</p> <ul style="list-style-type: none"> • Published resources • Science teacher leaders • Curriculum director
Person(s) required	<ul style="list-style-type: none"> • Teachers • Principals • Curriculum director • Science teacher leaders • CSSU colleagues 	<ul style="list-style-type: none"> • Teachers • Principals • Curriculum director • Science teacher leaders • CSSU colleagues 	<ul style="list-style-type: none"> • Teachers • Principals • Curriculum director • Science teacher leaders • CSSU colleagues
<p>Goal 2: All CCS students will increase their ability to perform science inquiry as measured on the Science NECAP at grades 4 and 8 and on the local CSSU Inquiry Science Assessments in grades K-8.</p>			
Action Step / Strategies:	<ul style="list-style-type: none"> • Teachers of grades 5-8 science will enhance student inquiry skills by utilizing science notebooks with an emphasis on developing new questions, making predictions, designing investigations, and analyzing data • Teachers in grades K-4 will enhance students' questioning skills through more explicit modeling of scientific questioning in appropriate units. 	<ul style="list-style-type: none"> • Teachers of grades 5-8 science will continue to enhance student inquiry skills by utilizing science notebooks with an emphasis on forming hypotheses, explaining evidence, analyzing data, and drawing conclusions • Teachers in grades K-4 will enhance students' questioning, predicting, investigating, and data analysis skills through more explicit modeling of these inquiry skills. 	<ul style="list-style-type: none"> • Teachers of grades 5-8 science will continue to enhance student inquiry skills by utilizing science notebooks with an emphasis on forming hypotheses, explaining evidence, analyzing data, and drawing conclusions • Teachers in grades 1-4 will introduce elements of science notebooks with an emphasis on recording learning, explaining content, and collecting vocabulary

	<ul style="list-style-type: none"> • Collaboratively analyze the results of the NECAP Science Assessment (K-8) by grade level teams to inform future instruction in science inquiry 	<ul style="list-style-type: none"> • Continue to collaboratively analyze the results of the NECAP Science Assessment (K-8) and local CSSU inquiry assessments (K-8) by grade level teams to inform future instruction in science inquiry 	<ul style="list-style-type: none"> • Continue to collaboratively analyze the results of the NECAP Science Assessment (K-8) and local CSSU inquiry assessments (K-8) by grade level teams to inform future instruction in science inquiry
Measurable Objectives / success indicators:	<ul style="list-style-type: none"> • The percentage of 4th graders who are proficient and above on the Science NECAP will increase to 85% over the next three years. • The percentage of 8th graders who are proficient and above on the Science NECAP will increase to 65% over the next three years. • Percentage of students in grades K-8 who achieve proficient or better on the CSSU Science Inquiry tasks will increase annually. • Science committee meeting and staff meeting schedules, agenda, notes 		
Resources Required:	<ul style="list-style-type: none"> • Published NECAP released items • Adequate meeting time for science committee (1hr/ month minimum) • Master schedule and meeting structures that provide necessary collaborative time • Published resources • Science teacher leaders • Curriculum director 	<ul style="list-style-type: none"> • Published NECAP released items • Adequate meeting time for science committee (1hr/ month minimum) • Master schedule and meeting structures that provide necessary collaborative time • Published resources • Science teacher leaders • Curriculum director 	<ul style="list-style-type: none"> • Published NECAP released items • Adequate meeting time for science committee (1hr/ month minimum) • Master schedule and meeting structures that provide necessary collaborative time • Published resources • Science teacher leaders • Curriculum director
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	<ul style="list-style-type: none">• Curriculum director• Science teacher leaders• CSSU colleagues	<ul style="list-style-type: none">• Curriculum director• Science teacher leaders• CSSU colleagues	<ul style="list-style-type: none">• Curriculum director• Science teacher leaders• CSSU colleagues
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