

# Science

**Science Goal:** All students will improve in science by using reading strategies and implementing scientific processes.

## What data supports the selection of the reading goal?

**KS Science Assessment:** In 2000-2001, 66% of the fourth grade students scored proficient or above. In 2001-2002, 88% of the students scored proficient or above. In 2002-2003, 91% of the fourth grade students scored proficient or above. In 2003-2004, 91% of the fourth grade students scored proficient or above. In 2004-2005, 91% of the fourth grade students scored proficient or above. SOE?

In 2000-2001, 88% of the seventh grade students scored proficient or above. In 2001-2002, 81% of the students scored proficient or above. In 2002-2003, 90% of the students scored proficient or above. In 2003-2004, 90% of the students scored proficient or above. In 2004-2005, 90% of the students scored proficient or above. SOE?

**ITBS:** During the 2003-2004 school year, we changed from spring to fall ITBS testing and only tested students in grades 1, 3, 5, and 7. In 2003-2004 on Science Total, there were no scores for students in grade 1 in science; students in grade 3 scored 62 NCE; students in grade 5 scored 68 NCE; and students in grade 7 scored 61 NCE. In 2004-2005 on Science Total, there were no scores for students in grade 1 in science; students in grade 3 scored 62 NCE; students in grade 5 scored 68 NCE; and students in grade 7 scored 61 NCE.

## What populations will be targeted for improvement?

**KS Science Assessment:** Students in the Unsatisfactory and Basic categories of the Kansas Science Assessment will be targeted for improvement.

**ITBS:** For those students who fall in the lower two categories of the Kansas Science Assessment, we will cross-reference their scores with the ITBS and other local performance measures to determine which students should be targeted for improvement.

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Strategies/Programs/ Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p>Students in <b>K-5</b> will use attributes of <b>expository, technical, and persuasive texts to comprehend and organize the text.</b></p> <ul style="list-style-type: none"> <li>• <b>Expository:</b> text structure, graphic features, topic, main idea, supporting details</li> <li>• <b>Technical:</b> text structure, graphic features, topic</li> <li>• <b>Persuasive:</b> text structure, issue, position, evidence</li> </ul>	<p>Pat Jones Reneé McKernan Carla Meyer Shelly Schmelzle Odette Helm Carole Sperflage Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner <b>Amy Schmitz</b> Roxanne Thomas Deitra Claas Thelma Linck</p> <p><b>Monitoring Team:</b> QPA Science Committee (Carol Buetzer, Shelly Schmelzle, Amy Schmitz, Carole Sperflage, Roxanne Thomas, David Warner)</p>	<p><b>Time:</b></p> <ul style="list-style-type: none"> <li>•Training for staff.</li> <li>•Sharing information at grade level meetings.</li> <li>•Formal and informal collaboration time for staff.</li> </ul> <p><b>Money:</b></p> <ul style="list-style-type: none"> <li>•Adequate funds to cover expenses of training and materials.</li> </ul> <p><b>People:</b></p> <ul style="list-style-type: none"> <li>•Staff previously listed.</li> <li>•Trainers (Vicki Bechard, Mary Jo Fox, other consultants as appropriate).</li> </ul> <p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>•<i>Teaching Reading in Science</i> for staff members.</li> <li>•<i>Teaching Reading in the Content Areas</i> packet.</li> <li>•Science textbooks.</li> <li>•<i>Time for Kids</i>.</li> <li>•<i>Science World Magazine</i>.</li> </ul>	<ul style="list-style-type: none"> <li>•August 2004 to End of Cycle.</li> </ul>	<p><b>Student Monitoring</b></p> <ul style="list-style-type: none"> <li>•This is not a targeted area; therefore, there will not be any formative student assessments.</li> </ul> <p><b>Teacher Monitoring</b></p> <ul style="list-style-type: none"> <li>•Teachers will complete a standards-based checklist on a regular basis; these will be submitted to the building administrator on a quarterly basis.</li> </ul>

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Strategies/Programs/ Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p>Students in <b>K-5</b> will use Reciprocal Teaching to help them with prior knowledge and their understanding.</p> <ul style="list-style-type: none"> <li>• Predict</li> <li>• Clarify</li> <li>• Question</li> <li>• Summarize</li> </ul>	<p>Pat Jones Reneé McKernan Carla Meyer Shelly Schmelzle Odette Helm Carole Sperflage Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner <b>Amy Schmitz</b> Roxanne Thomas Deitra Claas Thelma Linck</p> <p><b>Monitoring Team:</b> QPA Science Committee (Carol Buetzer, Shelly Schmelzle, Amy Schmitz, Carole Sperflage, Roxanne Thomas, David Warner)</p>	<p><b>Time:</b></p> <ul style="list-style-type: none"> <li>•Training for staff.</li> <li>•Sharing information at grade level meetings.</li> <li>•Formal and informal collaboration time for staff.</li> </ul> <p><b>Money:</b></p> <ul style="list-style-type: none"> <li>•Adequate funds to cover expenses of training and materials.</li> </ul> <p><b>People:</b></p> <ul style="list-style-type: none"> <li>•Staff previously listed.</li> <li>•Mary Jo Fox, reading trainer.</li> </ul> <p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>•Various informational texts.</li> <li>•Science textbooks.</li> <li>•<i>Time for Kids</i>.</li> </ul>	<ul style="list-style-type: none"> <li>•January 2004 until the end of the cycle.</li> </ul>	<p><b>Student Monitoring</b></p> <ul style="list-style-type: none"> <li>•This is not a targeted area; therefore, there will not be any formative student assessments.</li> </ul> <p><b>Teacher Monitoring</b></p> <ul style="list-style-type: none"> <li>•Teachers will complete a standards-based checklist on a regular basis; these will be submitted to the building administrator on a quarterly basis.</li> </ul>

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Strategies/Programs/Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p>Students in K-8 will use various graphic organizers to help organize their prior knowledge and their understanding of text during and after reading.</p> <p><b>Possible Graphic organizers to use in Science:</b></p> <ul style="list-style-type: none"> <li>• Anticipation Guide</li> <li>• Direct Reading/Thinking Activity</li> <li>• Concept Web</li> <li>• Venn Diagram</li> <li>• Description web</li> <li>• Cause/Effect Diagram</li> <li>• Group Summarizing</li> <li>• KWL</li> <li>• (PLAN) Predict; Locate; Add; Note</li> <li>• Problematic Situation</li> <li>• Proposition/Support Outline</li> <li>• Survey, Question, Read, Recite, Review (SQ3R)</li> <li>• Think-Aloud</li> </ul>	<p>Pat Jones            Reneé McKernan            Carla Meyer            Shelly Schmelzle            Odette Helm            Carole Sperflage            Tamela Becker            Carol Sack            Arminda Feldkamp            Ryan Noël            David Warner            Amy Schmitz            Roxanne Thomas            Deitra Claas            Thelma Linck</p> <p><b>Monitoring Team:</b>            QPA Science Committee            (Carol Buetzer,            Shelly Schmelzle,            Amy Schmitz,            Carole Sperflage,            Roxanne Thomas, David Warner)</p>	<p><b>Time:</b></p> <ul style="list-style-type: none"> <li>• Training for staff.</li> <li>• Sharing information at grade level meetings.</li> <li>• Formal and informal collaboration time for staff.</li> </ul> <p><b>Money:</b></p> <ul style="list-style-type: none"> <li>• Adequate funds to cover expenses of training and materials.</li> </ul> <p><b>People:</b></p> <ul style="list-style-type: none"> <li>• Staff previously listed.</li> </ul> <p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>• <i>Teaching Reading in Science</i> for staff.</li> <li>• <i>Teaching Reading in the Content Area</i> packets.</li> </ul>	<ul style="list-style-type: none"> <li>• January 2004 until the end of the cycle.</li> </ul>	<p><b>Student Monitoring</b></p> <ul style="list-style-type: none"> <li>• This is not a targeted area; therefore, there will not be any formative student assessments.</li> </ul> <p><b>Teacher Monitoring</b></p> <ul style="list-style-type: none"> <li>• Teachers will complete a standards-based checklist on a regular basis; these will be submitted to the building administrator on a quarterly basis.</li> </ul>

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Strategies/Programs/ Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p><b>K-8 students will learn the process of science through planning and conducting simple investigations.</b></p>	<p>Pat Jones Reneé McKernan Carla Meyer Shelly Schmelzle Odette Helm Carole Sperflage Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner Amy Schmitz Roxanne Thomas Deitra Claas Thelma Linck</p> <p><b>Monitoring Team:</b> QPA Science Committee (Carole Buetzer, Shelly Schmelzle, Amy Schmitz, Carole Sperflage, Roxanne Thomas, David Warner)</p>	<p><b><u>Time:</u></b></p> <ul style="list-style-type: none"> <li>•Updated training session on Scientific Method.</li> <li>•Updated training session on inquiry-based activities.</li> <li>•Sharing information at grade level meetings.</li> <li>•Formal and informal collaboration time for staff.</li> </ul> <p><b><u>Money:</u></b></p> <ul style="list-style-type: none"> <li>•Adequate funds to cover expenses of training and materials.</li> </ul> <p><b><u>People:</u></b></p> <ul style="list-style-type: none"> <li>•Staff previously listed.</li> </ul> <p><b><u>Materials:</u></b></p> <ul style="list-style-type: none"> <li>•Science textbooks</li> <li>•Replacement of supplemental and consumable materials.</li> </ul>	<ul style="list-style-type: none"> <li>•Continuation from Cycle II.</li> <li>•Cycle III Scientific Method refresher (updated training; to be done in-house).</li> </ul>	<p><b><u>Student Monitoring</u></b></p> <ul style="list-style-type: none"> <li>•Students will perform a scientific experiment once per quarter.</li> </ul> <p><b><u>Teacher Monitoring</u></b></p> <ul style="list-style-type: none"> <li>•Teachers will collect scientific experiment data on a quarterly basis.</li> <li>•Teachers will complete a standards-based checklist on a regular basis; these will be submitted to the building administrator on a quarterly basis.</li> </ul>