High Standards for Michigan's Students & Achieving Succeeding

Michigan Department of Education
All parents want their children to be successful. Knowing what schools expect is an important first step in helping children succeed.

Expecting More
Getting children prepared and ready to take their place in the world is challenging. The knowledge and skills that were needed to land a well-paying job 10 or 20 years ago might be adequate for a minimum-wage job today.

Requirements for graduates of Michigan schools have changed to reflect the changes you find all around you. For example, in today's job market an applicant for a job in computer programming or graphic design may be competing with applicants from all over the world.

Achieving More
Just as Olympic athletes continue to break records we once thought were unbeatable, high standards increase student achievement beyond former expectations. In fact, students themselves admit they can do more than they are asked to do — and are proving it. Since standards were raised, student scores in reading and math have been improving steadily.

In Michigan, public education is about giving everyone a fair chance to succeed. Expecting high achievement from all students helps ensure they are equally prepared for success.

Inside This Brochure
This brochure describes the relationship between high academic standards and the future success of Michigan students. It provides an overview of our standards in English language arts, mathematics, social sciences, and science. For each of these content areas, you will find charts that describe the topics students are studying, such as civics and economics in social studies. You'll also find a Michigan Education Assessment Program (MEAP) question in each area that shows how students demonstrate they have grasped a concept and can use the information.

For each standard, there are even more detailed learning objectives called benchmarks. Teachers, schools, and school districts use these benchmarks to develop lesson plans for the classroom and to match their curriculum with this common set of expectations.

To find all of the standards and benchmarks included in the Michigan Curriculum Framework, you can visit this Web site: http://cdp.mde.state.mi.us. MEAP information may be found at http://www.meritaward.state.mi.us.

“Those of us who employ Michigan's graduates recognize the economic benefits of higher standards: Good jobs require good skills, and the place to begin preparing students is in our schools.”

David R. Whitwam
Chairman and CEO
Whirlpool Corporation
English Language Arts

While most of us do not use the term English language arts in our daily lives, we constantly use its skills, such as listening to a weather report, viewing the morning news on television, reading the mail, writing a report for work, or speaking clearly to describe a project.

We rarely, however, use only one of these skills at a time in the real world. For example, we both listen to and watch a movie; we read a survey and write our answers to the questions. In learning to read, our children build on their knowledge of words they have heard and spoken themselves, and then they use writing to practice combining letters, words, and ideas.

The English language arts standards organize the skills we use into four large categories: communication, literature and understanding, genre and craft of language, and skills and processes.

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**Q:** There is a first time for everything. It could be the first day in a new school or running a race for the first time. Write about a first.

This sample fifth-grade MEAP problem is designed to test a student’s ability to convey ideas through writing. The answer would receive the maximum number of points.

**Sample Answer:**

**The First Time I was Bitten by a Cat**

On a sunny day in July, my parents decided to take me to the local pet store to look for a new pet. I had been asking for a cat for a long time, but my parents had been hesitant. Finally, they agreed to let me choose a cat to bring home.

It was a beautiful day, and we were excited to see all the different cats available. We picked up a carrier and started looking for the perfect feline companion. I saw a beautiful Siamese cat that caught my eye. She was so cute and seemed so friendly. I asked my parents if they would let me have her, and they said yes!

I was overjoyed and couldn’t wait to take her home. We bought all the necessary supplies and drove back to our house. I couldn’t wait to introduce my new cat to my family.

When we got home, I quickly showed the cat to everyone. My siblings were so excited, and my parents were happy to see that I was responsible and excited about my new pet. We named her Luna, and she quickly became a part of our family.

The first few days were scary for me, but Luna was so sweet and gentle. She would snuggle with me and purr when I held her. I learned so much about taking care of a pet, and I loved spending time with Luna.

Looking back, I realize that the first time was scary and exciting. I learned that taking care of a pet is a big responsibility, but it’s also a lot of fun. I’m so grateful for Luna and the many happy memories we’ve made together.

This chart provides an overview of some of the skills students will develop in each of the English language arts areas.

**Skills and Processes**

- Draft and revise written materials.
- Use a variety of skills to understand the meaning of reading materials.
- Investigate problems using resources such as the Internet.
- Apply standards to evaluate a variety of texts.

**Genre and Craft of Language**

- Use punctuation, capitalization, and correct grammar.
- Convey ideas through graphs; storytelling; video; and other written, oral, and visual methods.
- Explore and use creative written, oral, and visual methods to express ideas.

**Communication**

- Read and write with fluency.
- Use methods such as phonics, vocabulary, sentence structure, and comprehension strategies to understand what is read.
- Develop confidence in speaking and writing skills.

**Literature and Understanding**

- Read, view, and listen to good literature.
- Describe how various cultures are represented in stories and books.
- Explore and analyze themes in written material.
- Apply knowledge, ideas, and issues from reading to personal life.

**Category**

- Communication
- Literature and Understanding
- Genre and Craft of Language
- Skills and Processes
In order to reseed their lawn, Martel’s mother got two estimates. The Greenery would charge a flat fee of $750. The Lawn Shop would charge a flat fee of 10¢ per square foot. What is the LEAST expensive estimate? Explain your answer and compute the savings resulting from the difference in prices.

The Michigan standards require that students use math on many levels; from basic addition to problem-solving; from recognizing the patterns in a tide chart to making predictions based on observing patterns.

The first thing you may notice about the mathematics standards is that there are six categories (see chart). While the six categories remain the same for children at every grade level, the type of information and the degree of difficulty progressively increase through the elementary, middle, and high school years. Math doesn’t start with addition and end with calculus. Elementary students learn concepts from algebra and probability, as well as how to subtract and divide fractions. The goal is to have students learn to think mathematically so they understand how to solve problems, rather than memorize ways to solve problems.

The mathematics problems encountered in our lives are rarely set up in a formula for us to solve. It is up to us to figure out how to solve them.

The problem provided to the right is from the 11th-grade MEAP, and it serves to test students’ knowledge of geometry and measurement, as well as numerical and algebraic operations. The student’s answer received the maximum points available.

The Greenery would charge the lesser price. The Lawn Shop charges $7.50. The Greenery charges $7.00. Martel’s mom will save $0.50.

What is the LEAST expensive estimate? Explain your answer and compute the savings resulting from the difference in prices.
Social Studies

Graduates of Michigan’s schools will become your neighbors and co-workers. Many of them will be the next generation of teachers, public officials, and civic volunteers. Setting high goals and standards in social studies will help prepare students for their various roles as responsible citizens.

Four of the seven categories within the social studies standards (historical, geographic, civic, and economic) provide the foundations for students to make decisions, whether in their homes, in the voting booth, in town hall meetings, or on the job (see chart on the next page).

As they build this base of knowledge, students will be challenged throughout their school years to use what they know to become active citizens: analyzing public issues and coming up with solutions, having group conversations to explore policy issues, expressing their own opinions in writing, and participating in community projects for the public good.

### Social Studies: An Overview

<table>
<thead>
<tr>
<th>Category</th>
<th>Historical Perspective</th>
<th>Geographic Perspective</th>
<th>Civic Perspective</th>
<th>Economic Perspective</th>
<th>Inquiry</th>
<th>Public Discourse and Decision Making</th>
<th>Citizen Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards</td>
<td>Know when events</td>
<td>Know people, places,</td>
<td>Identify the</td>
<td>Explain individual</td>
<td>Use info.</td>
<td>Identify and analyze issues.</td>
<td>Demonstrate</td>
</tr>
<tr>
<td></td>
<td>happened.</td>
<td>and cultures.</td>
<td>purposes of</td>
<td>and household</td>
<td>conduct</td>
<td>participate in group discussions.</td>
<td>responsible</td>
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<tr>
<td></td>
<td>Understand the past.</td>
<td></td>
<td>government.</td>
<td>choices.</td>
<td>investigations.</td>
<td>Express positions in writing.</td>
<td>personal conduct.</td>
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<tr>
<td></td>
<td>Analyze and interpret</td>
<td></td>
<td>Explain the</td>
<td>Demonstrate business</td>
<td></td>
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<tr>
<td></td>
<td>the past.</td>
<td></td>
<td>ideals of</td>
<td>choices.</td>
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<td></td>
<td>Judge decisions</td>
<td></td>
<td>American</td>
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<tr>
<td></td>
<td>from the past.</td>
<td></td>
<td>democracy.</td>
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<td></td>
<td></td>
<td></td>
<td>Describe political and legal processes.</td>
<td>Describe the role of government.</td>
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<td></td>
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<td>Describe</td>
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<td></td>
<td></td>
<td></td>
<td>American government and politics.</td>
<td>Define economic systems.</td>
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<td></td>
<td></td>
<td></td>
<td>Understand</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>American government and world affairs.</td>
<td>Describe trade.</td>
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</tbody>
</table>

The eighth-grade student who answered this MEAP question on demographics received the maximum number of points.

**Q.** Explain and chart the relationship between the percentage of population over 65 years in Michigan and the years shown in the table.

**Sample Answer:**

<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage of population over 65 years in Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>12%</td>
</tr>
<tr>
<td>2000*</td>
<td>13%</td>
</tr>
<tr>
<td>2010*</td>
<td>17%</td>
</tr>
<tr>
<td>2020*</td>
<td>17%</td>
</tr>
<tr>
<td>2030*</td>
<td>19%</td>
</tr>
</tbody>
</table>

**There is a direct relationship because as years go up the percentage of population over 65 in Michigan also goes up.**
Science is a way of making sense of the natural world — understanding why the dog has such a keen sense of smell, knowing why the cheese left too long in the refrigerator developed mold, and understanding what the doctor means by resistance to antibiotics.

We all begin our lives as scientists, asking questions about those issues that hold great mystery to us as children: How can this tiny seed make a big pumpkin (life science)? How did Big Bird get in my television (physical science)? How many stars are there (earth science)? Beginning in kindergarten and continuing through high school, students in Michigan schools will be learning to use, create, and reflect on the mysteries of life, physical, and earth science. There are five categories in science (see chart).

In science, students must learn to find answers by setting up experiments, even in the elementary grades. The student who answered this fifth-grade MEAP question received the maximum number of points.

**Q:** Bill would like to know if the number of hours of sunshine during a given day has any relationship with the highest temperature recorded during that day. How could he set up a test (experiment) that would help him answer the question?

**Sample Answer:** Bill could record the hours of sunshine and the highest temperature at the same place for about 10 to 20 days. He should do the experiment whenever the season changes.
Here are a few steps you can take as an interested parent to ensure that your child is making progress:

1. Make sure your child is healthy, well nourished, and attending school every day. Health and attendance count!
2. Talk to your child every day about what she or he learned in each subject at school.
3. Ask your child’s teacher to explain what is being taught in class so that students can meet the standards. Ask for copies of written materials explaining the teacher’s expectations for the school year.
4. Learn what the homework policy is. How often is homework assigned in each subject, and how much time should it take to complete assignments?
5. Go over homework with your child to make sure she or he understands the kind of work that is expected. Do the problems require her to write out answers so she can show her thinking? Can he answer problems just by filling in the blanks?
6. Find out what kinds of tests are used in the classroom. Does the teacher have more than one way to show your child is achieving? Do the tests that are being used measure progress in meeting the standards?
7. Make an appointment to talk with your child’s teacher about test results. Ask what you can do to help your child learn.