

Technology Curriculum Owner's Manual

The Michigan Curriculum Framework contains **six** Technology Standards for the Elementary, Middle School, and High School level.

Content Standards:

All students will:

1. Use and transfer technology and skills for life roles (family member, citizen, worker, consumer, lifelong learner); **Using and Transferring**
2. Use technologies to input, retrieve, organize, manipulate, evaluate, communicate information; **Using Information Technologies**
3. Apply appropriate technologies to critical thinking, creative expression, and decision-making skills; **Apply Appropriate Technologies**
4. Employ a systematic approach to technological solutions by using resources and processes to create, maintain, and improve products, systems, and environments; **Employ Systematic Approach**
5. Apply ethical and legal standards in planning, using, and evaluating technology; **Applying Standards**
6. Evaluate the societal and environmental impacts of technology and forecast alternative uses and possible consequences to make informed civic, social and economic decisions; **Evaluating and Forecasting**

The curriculum council of Bay-Arenac ISD approved the development of a Technology Curriculum in late 2003. Under the direction of John Mertz, teachers began to write the document in January of 2005. The Technology team developed a Mission and Belief Statements. They used the Michigan Curriculum Framework but collapsed some benchmarks. The team developed K-8 + High School benchmarks and completed a Benchmark Analysis and Assessment templates. Teams adapted Performance Expectations from the ISTE standards and keyboarding standards from the Midland School District Technology Competency Skills - Scope and Sequence.

Julie Taylor and Sue Hudson made the Curriculum Integration connections for the High School and Middle School teams respectively. Julie Taylor and Donna Atwater (edited by Cliff Dupuy) compiled the Glossary.

John Mertz added the Preface, Standard Classroom List, and Matrix document. Jerry Krzyczkowski added the Owners' Manual and Acknowledgements.

Abbreviations used in this document are:

ISTE: International Society for Technology in Education
NETS: National Education Technology Standards
MCF: Michigan Curriculum Framework
TEC: Technology
WPM: Words per minute
M: Observe Teacher Modeling Skills
P: Practice with Teacher Guidance
U: Use Skills with Minimal Teacher Support
I: Apply Skills Independently
EE: Early Elementary
LE: Later Elementary
MS: Middle School
HS: High School
ELA: English Language Arts
MAT: Mathematics
SCI: Science
SOC: Social Studies

The Michigan Curriculum Framework Code refers to:

Subject Matter, Strand (if identified), Content Standard, Level, Benchmark

so

TEC.3.HS.2 means Technology, Standard 3, High School, Benchmark 2

and

SOC.II.3.HS.2 means Social Studies, Strand 2 (Geography), Standard 3,
High School, Benchmark 2

All teams used the same templates to address Instructional and Assessment content:

Instructional Template Technology Grade 1

Standard __: These are standards based on the Michigan Curriculum Framework

Benchmark __: Benchmarks are preceded by the stem, “All students will...” These statements are bolded because they explain exactly what students are supposed to learn, and, therefore, what teachers should teach. The verb defines the skill. The nouns define the concepts to be mastered.

MCF Benchmark__: These refer to the MCF code (Subject, Strand, Content Standard, Benchmark) addressed by the BAISD benchmark

Analysis of Benchmark

Key Concepts - Curriculum writers used the stem, “Students will learn that ...” to make these statements. Ultimately, the key concepts describe what the Assessments measure.

Evidence of Achievement - Curriculum writers used a ‘Backwards-Design’ process. This means they planned “Assessment” before “Instruction”. They described what evidence of understanding the students might provide.

Instructional Activities - Writers wanted to provide direction without being overly proscriptive. They used the “Guided Release of Responsibility Model. This model has three steps: **1) Teacher Modeling 2) Guided Practice** (with feedback) **3) Independent Practice.** Sometimes, the last step is the same as “Evidence of Achievement”.

Curriculum Integration - There are connections between Technology and the Core Curriculum (ELA, Math, Science, Social Studies). This notation refers the reader to the Michigan Curriculum Framework to find the similarities.

Resources - This defines the books, lists, websites, and recommendations that would help a teacher with the background knowledge or materials needed to address a benchmark.

Assessment - If an “Assessment” is repeated, this will tell the teacher where to find it.

Assessment

Title of Task:

Grade:____

Standard & Benchmark: This refers to BAISD Standards and Benchmarks

Assessment Task

This tells students exactly what to do to provide evidence of understanding.

Scoring Guide Criteria

These bulleted statements list the categories the student is to be evaluated on
- for example:

- Number of sources
- Kinds of sources

Beginning

Developing

Achieving

Exceeding

This table contains a spectrum from Beginning to Exceeding Standards.
Only “Achieving” is explained. This allows individual instructors maximum flexibility to fill in the other three categories.