

# MTTC Lower Elementary (PK-3): Science & Social Studies

Below is a list of resources based on the [objectives](#) for the Elementary Education MTTC Lower Elementary (PK-3) test. These resources are created to give background information and practice for each of the standards. It will also be helpful to look over notes and resources from your science and social studies classes and to use the materials provided by Mometrix and the MTTC.

## **001 - Scientific Phenomena**

- [Article - "Making Scientific Phenomena Phenomenal"](#)
- [Videos - "Phenomena Basics"](#)
- [Modules - "Phenomena-Based Learning Modules"](#)

## **002 - Engaging Children in Science & Engineering Practices**

- [Module - "Leading Children in Hands-On Exploration"](#)
- [Article - "How to Use Scientific Inquiry in the Elementary Classroom"](#)
- [Article - "Applied Engineering in Elementary School"](#)
- [Article + Videos - "Scientific Inquiry Skills for Elementary Students"](#)

## **003 - Engaging Children in Developing & Using Core Ideas**

- [Videos - "Crash Course Kids"](#)
- [Video - "A Year of Life Science in 3 Minutes"](#)
- [Article - "Hands-on Activities for Introducing Ecosystems to Elementary Students"](#)
- [Article + Video Links - "Life Cycles of Animals and Plants: 6 Engaging Ideas"](#)
- [Video - "What is Earth Science?"](#)
- [Article - "22 Ideas for Earth Science Week"](#)
- [Video - "Introduction to Physics"](#)
- [Topics & Videos - "Physical Science \(PBS\)"](#)

## **004 - Engaging Developing and Using Crosscutting Concepts**

- [Video - "Making Scientific Models"](#)
- [Article - "Introducing Crosscutting Concepts in the Elementary Grades"](#)

## **005 - Selecting and Modifying Materials for 3D Learning**

- [Article - "Selecting Resources for Teaching Science to Young Children"](#)
  - You will only be able to read part of this article for free, but it should have the information you need without signing up

- [Reading - "Selecting Instructional Materials"](#)
  - You only need the first two sections
- [Article - "Young Children Can Learn Scientific Reasoning with Teachable Agents"](#)
- [Article - "Science Writing: A Tool for Learning Science and Developing Language"](#)

### **006 - Children's Scientific Sense-Making**

- [Article - "Sensemaking"](#)
- [Article - "Using Effective Driving Questions in Science to Help Make Sense of the World"](#)
- [Article - "How to Teach Students to Think like Scientists"](#)
- [Article + Video - "Making Student's Thinking Visible"](#)

### **007 - Culturally Relevant Sense-Making in 3D Learning**

- [Article - "Four Good Science Teaching Strategies and How to Use Them"](#)
- [Article - "Science Strategies Considerations Packet"](#)
- [Article - "Systems of Science Assessment"](#)
- [Article - "Facilitating Class Discussions and Science Talk"](#)

### **008 - Equity & Access**

- [Article - "How to Give Science Lessons a Real-World Boost"](#)
- [Article - "How to Build an Equitable Learning Community in your Science Classroom"](#)
- [Article - "Creating a Multicultural Learning Environment In Science Classrooms"](#)

### **009 - Civic Engagement**

- [Article - "5 Strategies to Integrate Civil Discourse and Civic Action in Schools"](#)
- [Article - "6 Research-Based Methods for Teaching Civics Education"](#)
- [Article - "Responsibilities of U.S. Citizens"](#)
- [Article + Videos - "Social Studies Dimension 3: Evaluating Sources and Using Evidence"](#)
- [Article + Videos - "The Geo-Inquiry Process"](#)

### **010 - History**

- [Article - "Michigan in Brief"](#)
- [Videos - "Crash Course U.S. History"](#)
- [Flashcards - Important U.S. History Facts](#)
- [U.S. History Timeline \(in Brief\)](#)
- [Videos - U.S. History Overview](#)
- [Article - "Historical Thinking Skills"](#)

- [Article - "Multiperspectivity: What Is It, and Why Use It?"](#)
- [Article - "How and Why to Use Primary Sources When Teaching History"](#)
- [Article - "From Tech to Pedagogy: 8 Simple Tips for History Teachers"](#)
- [Article - "Using Historical Sources"](#)

## **011 - Geography**

- [Videos - "Crash Course Geography"](#)
- [Video - "What Can You Do with Geography?"](#)
- [Article - "Map Reading for Beginners"](#)
- [Article + Videos - "Geographic Tools and Methods"](#)
- [Article - "Geography Standard 4 - The Physical and Human Characteristics of Places"](#)
- [Article - "Geography Standard 11: The Patterns and Networks of Economics Interdependence on Earth's Surface"](#)
- [Article - "Globalization and Interdependency"](#)
- [Article - "Human-Environment Interactions"](#)
- [Article - "All Over the Map: 10 Ways to Teach about Geography"](#)

## **012 - Civics & Government**

- [Article - "State and Local Government"](#)
- [Article - "The Purposes of Government"](#)
- [Article - "Core Democratic Values Defined"](#)
- [Video - "Rights and Responsibilities"](#)
- [Article - "Our Government"](#)
- [Videos - "Crash Course U.S. Government & Politics"](#)
- [Articles - "United States Government for Kids"](#)
  - A great source for quick facts that are easy to read and understand
- [Articles - "Foreign Policy"](#)
  - Click through to read about all the types of policies
- [Article - "How to Teach Government in a Fun Way: 6 Ways to Bring Civics Alive"](#)
- [Article - "Helping Students Become Engaged Citizens"](#)

## **013 - Economics**

- [Khan Academy - "Microeconomics: Basic Economic Concepts"](#)
- [Khan Academy - "Macroeconomics - Basic Economic Concepts"](#)
- [Article - "Financial Literacy for Kids"](#)
- [Article + Videos - "Economic Decision-Making"](#)
- [Article - "Market Economies"](#)
- [Video - "What is a Market Economy?"](#)
- [Article - "Roles of Government in the U.S. Economy"](#)
- [Article - "How Does the Global Economy Work?"](#)

- [Article + Videos - "Economic Systems"](#)
- [Videos - "Crash Course Economics"](#)
- [Article - "Teach Kids Economics and They Will Learn"](#)