



CHILDREN'S MUSEUM HOUSTON

Matter Factory is aligned to the Reading/Language Arts and Science TEKS for Kindergarten through Grade 8.

Kindergarten, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - K.1(A) listen actively and ask questions to understand information and answer questions using multi-word responses
 - K.1(B) restate and follow oral directions that involve a short, related sequence of actions
 - K.1(C) share information and ideas by speaking audibly and clearly using the conventions of language
 - K.1(D) work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - K.1(E) develop social communication such as introducing himself/herself, using common greetings, and expressing needs and wants

- **use research skills to plan and present in written, oral, or multimodal formats**
 - K.12(A) generate questions for formal and informal inquiry with adult assistance
 - K.12(B) develop and follow a research plan with adult assistance
 - K.12(C) gather information from a variety of sources with adult assistance
 - K.12(D) demonstrate understanding of information gathered with adult assistance
 - K.12(E) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

Kindergarten, Science

- **Scientific investigation and reasoning**
 - K.2(A) ask questions about organisms, objects, and events observed in the natural world
 - K.3(C) explore that scientists investigate different things in the natural world and use tools to help in their investigations
 - K.4(B) use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment

- **Matter and energy**
 - K.5(A) observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture
 - K.5(B) observe, record, and discuss how materials can be changed by heating or cooling

- **Force, motion, and energy**
 - K.6(A) use the senses to explore different forms of energy such as light, thermal, and sound



First Grade, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - 1.1(A) listen actively, ask relevant questions to clarify information, and answer questions using multi-word responses
 - 1.1(B) follow, restate, and give oral instructions that involve a short, related sequence of actions
 - 1.1(C) share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 1.1(D) work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 1.1(E) develop social communication such as introducing himself/herself and others, relating experiences to a classmate, and expressing needs and feelings

- **use research skills to plan and present in written, oral, or multimodal formats**
 - 1.13(A) generate questions for formal and informal inquiry with adult assistance
 - 1.13(B) develop and follow a research plan with adult assistance
 - 1.13(C) identify and gather relevant sources and information to answer the questions with adult assistance
 - 1.13(D) demonstrate understanding of information gathered with adult assistance
 - 1.13(E) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

First Grade, Science

- **Scientific investigation and reasoning**
 - 1.2(A) ask questions about organisms, objects, and events observed in the natural world
 - 1.3(C) describe what scientists do
 - 1.4 (B) measure and compare organisms and objects using non-standard units

- **Matter and energy**
 - 1.5(A) classify objects by observable properties such as larger and smaller, heavier and lighter, shape, color, and texture
 - 1.5(B) predict and identify changes in materials caused by heating and cooling; and
 - 1.5(C) classify objects by the materials from which they are made.
 - Force, motion, and energy
 - 1.6(A) identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life



Second Grade, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - 2.1(A) listen actively, ask relevant questions to clarify information, and answer questions using multi-word responses
 - 2.1(B) follow, restate, and give oral instructions that involve a short, related sequence of actions
 - 2.1(C) share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 2.1(D) work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 2.1(E) develop social communication such as conversing politely in all situations

- **use research skills to plan and present in written, oral, or multimodal formats**
 - 2.13(A) generate questions for formal and informal inquiry with adult assistance
 - 2.13(C) identify and gather relevant sources and information to answer the questions
 - 2.13(E) demonstrate understanding of information gathered
 - 2.13(G) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

Second Grade, Science

- **Scientific investigation and reasoning**
 - 2.2(A) ask questions about organisms, objects, and events during observations and investigations
 - 2.3(C) identify what a scientist is and explore what different scientists do
 - 2.4(B) measure and compare organisms and objects

- **Matter and energy**
 - 2.5(A) classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid
 - 2.5(B) compare changes in materials caused by heating and cooling
 - Science, Third Grade

- **Force, motion, and energy**
 - 3.6(A) explore different forms of energy, including mechanical, light, sound, and thermal in everyday life



Third Grade, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - 3.1(A) listen actively, ask relevant questions to clarify information, and make pertinent comments
 - 3.1(B) follow, restate, and give oral instructions that involve a series of related sequences of action
 - 3.1(C) speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively
 - 3.1(D) work collaboratively with others by following agreed-upon rules, norms, and protocols
 - 3.1(E) develop social communication such as conversing politely in all situations

- **use research skills to plan and present in written, oral, or multimodal formats**
 - 3.13(A) generate questions on a topic for formal and informal inquiry
 - 3.13(C) identify and gather relevant information from a variety of sources
 - 3.13(E) demonstrate understanding of information gathered
 - 3.13(H) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

Third Grade, Science

- **Force, motion, and energy**
 - 3.6(A) explore different forms of energy, including mechanical, light, sound, and thermal in everyday life

Fourth Grade, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - 4.1(A) listen actively, ask relevant questions to clarify information, and make pertinent comments
 - 4.1(B) follow, restate, and give oral instructions that involve a series of related sequences of action
 - 4.1(C) express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively
 - 4.1(D) work collaboratively with others to develop a plan of shared responsibilities

- **use research skills to plan and present in written, oral, or multimodal formats**
 - 4.13(A) generate and clarify questions on a topic for formal and informal inquiry
 - 4.13(B) develop and follow a research plan with adult assistance
 - 4.13(C) identify and gather relevant information from a variety of sources



- 4.13(E) demonstrate understanding of information gathered
- 4.13(H) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

Fourth Grade, Science

- **Force, motion, and energy**
 - 4.6(A) differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal
 - 4.6(B) differentiate between conductors and insulators of thermal and electrical energy
 - 4.6(C) demonstrate that electricity travels in a closed path, creating an electrical

Fifth Grade, Reading/Language Arts

- **communicate ideas effectively through speaking and discussion**
 - 5.1(A) listen actively to interpret verbal and nonverbal messages, ask relevant questions, and make pertinent comments
 - 5.1(B) follow, restate, and give oral instructions that include multiple action steps
 - 5.1(C) give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively
 - 5.1(D) work collaboratively with others to develop a plan of shared responsibilities
- **use research skills to plan and present in written, oral, or multimodal formats**
 - 5.13(A) generate and clarify questions on a topic for formal and informal inquiry
 - 5.13(C) identify and gather relevant information from a variety of sources
 - 5.13(E) demonstrate understanding of information gathered
 - 5.13(H) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results

Fifth Grade, Science

- **Matter and energy**
 - 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy
- **Force, motion, and energy**
 - 5.6(A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy
 - 5.6(B) demonstrate that the flow of electricity in closed circuits can produce light, heat, or sound



Sixth Grade, Science

- **Scientific investigation and reasoning**
 - 6.3 (B) use models to represent aspects of the natural world such as a model of Earth's layers;
 - 6.3(C) identify advantages and limitations of models such as size, scale, properties, and materials; and
- **Matter and energy**
 - 6.5(A) know that an element is a pure substance represented by a chemical symbol and that a compound is a pure substance represented by a chemical formula
 - 6.5(B) recognize that a limited number of the many known elements comprise the largest portion of solid Earth, living matter, oceans, and the atmosphere

Seventh Grade, Science

- **Scientific investigation and reasoning**
 - 7.3(B) use models to represent aspects of the natural world such as human body systems and plant and animal cells;
 - 7.3(C) identify advantages and limitations of models such as size, scale, properties, and materials

Eighth Grade, Science

- **Scientific investigation and reasoning**
 - 8.3(B) use models to represent aspects of the natural world such as an atom, a molecule, space, or a geologic feature;
 - 8.3(C) identify advantages and limitations of models such as size, scale, properties, and materials; and
- **Matter and energy**
 - 8.5(A) describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud
 - 8.5(B) identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity
 - 8.5(C) interpret the arrangement of the Periodic Table, including groups and periods, to explain how properties are used to classify elements
 - 8.5(D) recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts