



INTERURBAN RAILWAY MUSEUM 5th GRADE FIELD TRIP

In conjunction with the 5th grade curriculum, students will enjoy a vast array of experiences as they tour the Interurban Railway Museum. As students, chaperones, and teachers explore the museum's historical photographs, preserved railway car, rooms, and grounds they will gain a better understanding of numerous objectives within the 5th grade content areas.

Hands on experiences are also, an exciting part of the exploration as students not only view but manipulate electrical circuit boards, see and touch authentic railroad tracks and nails, go inside an actual train car, and view how the electrical currents flowed through the building and out to the railway. Students will also, enjoy walking the grounds to observe historical architecture and sculpture.

- 1. Students use listening and speaking skills throughout the course of the field trip. They will participate in discussions as they listen attentively to information about historic Plano, the Interurban Railroad, and answer questions.**

§110.15. English Language Arts and Reading

(27) Listening and Speaking/Listening. Students use comprehension skills to listen attentively to others in formal and informal settings. Students continue to apply earlier standards with greater complexity. Students are expected to:

- (A) listen to and interpret a speaker's messages (both verbal and nonverbal) and ask questions to clarify the speaker's purpose or perspective;
- (B) follow, restate, and give oral instructions that include multiple action steps; and
- (C) determine both main and supporting ideas in the speaker's message.

(28) Listening and Speaking/Speaking. Students speak clearly and to the point, using the conventions of language. Students continue to apply earlier standards with greater complexity. Students are expected to give organized presentations employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively.

(29) Listening and Speaking/Teamwork. Students work productively with others in teams. Students continue to apply earlier standards with greater complexity. Students are expected to participate in student-led discussions by eliciting and considering suggestions from other group members and by identifying points of agreement and disagreement.

- 2. Gain a better understanding and appreciation for the impact of railroads on the people of Texas, Plano, and surrounding areas.**

§113.15. Social Studies

(5) History. The student understands important issues, events, and individuals in the United States during the 20th and 21st centuries. The student is expected to:

- (A) analyze various issues and events of the 20th century such as industrialization, urbanization, increased use of oil and gas, the Great Depression, the world wars, the civil rights movement, and military actions

(23) Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:

- (A) identify the accomplishments of notable individuals in the fields of science and technology,

including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;

(C) explain how scientific discoveries and technological innovations in the fields of medicine, communication, and transportation have benefited individuals and society in the United States; and

(D) predict how future scientific discoveries and technological innovations could affect society in the United States.

3. Acquire knowledge of the impact of transportation, its progress, and how it has affected the Texas economy.

§113.15. Social Studies

(4) History. The student understands political, economic, and social changes that occurred in the United States during the 19th century. The student is expected to:

(C) identify reasons people moved west;

(D) identify significant events and concepts associated with U.S. territorial expansion, including the Louisiana Purchase, the expedition of Lewis and Clark, and Manifest Destiny

(13) Economics. The student understands patterns of work and economic activities in the United States. The student is expected to:

(A) compare how people in different parts of the United States earn a living, past and present;

(C) analyze the effects of immigration, migration, and limited resources on the economic development and growth of the United States;

(D) describe the impact of mass production, specialization, and division of labor on the economic growth of the United States

(23) Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:

(B) identify how scientific discoveries, technological innovations, and the rapid growth of technology industries have advanced the economic development of the United States, including the transcontinental railroad and the space program;\

4. Use critical thinking skills, tools, and resources to gain understanding of the history of transportation and its effect on Texas.

§113.15. Social Studies

(6) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to:

(A) apply geographic tools, including grid systems, legends, symbols, scales, and compass roses, to construct and interpret maps; and

(B) translate geographic data into a variety of formats such as raw data to graphs and maps.

(24) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:

(A) differentiate between, locate, and use valid primary and secondary sources such as computer software; interviews; biographies; oral, print, and visual material; documents; and artifacts to acquire information about the United States;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

(D) identify different points of view about an issue, topic, or current event; and

(E) identify the historical context of an event.

5. Students will have the opportunity to analyze sculpture as well as historical architecture.

§117.14. Art

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) compare artworks from several national periods, identifying similarities and differences;

(B) compare cultural themes honoring history and traditions in American and other artworks

§113.15. Social Studies

(21) Culture. The student understands the relationship between the arts and the times during which they were created. The student is expected to:

(B) explain how examples of art, music, and literature reflect the times during which they were created.

6. Read and comprehend information from a variety of resources.

§110.15. English Language Arts and Reading

(10) Reading/Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to draw conclusions from the information presented by an author and evaluate how well the author's purpose was achieved.

(11) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding. Students are expected to:

(A) summarize the main ideas and supporting details in a text in ways that maintain meaning and logical order;

(B) determine the facts in text and verify them through established methods;

(C) analyze how the organizational pattern of a text (e.g., cause-and-effect, compare-and-contrast, sequential order, logical order, classification schemes) influences the relationships among the ideas;

(D) use multiple text features and graphics to gain an overview of the contents of text and to locate information; and

(E) synthesize and make logical connections between ideas within a text and across two or three texts representing similar or different genres.

(13) Reading/Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents. Students are expected to:

(B) interpret factual or quantitative information presented in maps, charts, illustrations, graphs, timelines, tables, and diagrams.

Figure: 19 TAC §110.10(b)

Reading/Comprehension Skills. Students use a flexible range of metacognitive reading skills in both assigned and independent reading to understand an author's message. Students will continue to apply earlier standards with greater depth in increasingly more complex texts as they become self-directed, critical readers. The student is expected to:

(A) establish purposes for reading selected texts based upon own or others' desired outcome to enhance comprehension;

(B) ask literal, interpretive, evaluative, and universal questions of text;

(C) monitor and adjust comprehension (e.g., using background knowledge, creating sensory images, re-reading a portion aloud, generating questions);

(D) make inferences about text and use textual evidence to support understanding;

(E) summarize and paraphrase texts in ways that maintain meaning and logical order within a text and across texts; and

(F) make connections (e.g., thematic links, author analysis) between and across multiple texts of various genres and provide textual evidence.

7. Use of mathematical thinking and reasoning.

§111.16. Mathematics

(5.3) Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems. The student is expected to:

(B) use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology);

(5.4) Number, operation, and quantitative reasoning. The student estimates to determine reasonable results. The student is expected to use strategies, including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication, and division problems.

(5.5) Patterns, relationships, and algebraic thinking. The student makes generalizations based on observed patterns and relationships. The student is expected to:

(A) describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams

(5.14) Underlying processes and mathematical tools. The student applies Grade 5 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(A) identify the mathematics in everyday situations;

(B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;

(C) select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and

(D) use tools such as real objects, manipulatives, and technology to solve problems.

(5.16) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to:

(B) justify why an answer is reasonable and explain the solution process.

8. Opportunities to apply scientific knowledge.

§112.15. Science

(2) Scientific investigation and reasoning. The student uses scientific methods during laboratory and outdoor investigations. The student is expected to:

(D) analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;

(E) demonstrate that repeated investigations may increase the reliability of results;

(F) communicate valid conclusions in both written and verbal forms; and

(3) Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(D) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.

(6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

(A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy;

(B) demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound