



INTERURBAN RAILWAY MUSEUM 4th GRADE FIELD TRIP

In conjunction with 4th grade curriculum, students will have a vast array of experiences as they tour the Interurban Railway Museum. Students, chaperones and teachers will explore the museum's historical photographs, preserved railway car, rooms, and grounds.

Hands on experiences are also an exciting part of the exploration as students use electrical circuit boards, see and touch 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.

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 attentively to speakers, ask relevant questions, and make pertinent comments

(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 express an opinion supported by accurate information, employing eye contact, speaking rate, volume, and enunciation, and the conventions of language to communicate ideas effectively.

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

(4) History. The student understands the political, economic, and social changes in Texas during the last half of the 19th century. The student is expected to:

(C) identify the impact of railroads on life in Texas, including changes to cities and major Industries;
and

(D) examine the effects upon American Indian life resulting from changes in Texas, including the Red River War, building of U.S. forts and railroads, and loss of buffalo.

(9) Geography. The student understands how people adapt to and modify their environment. The student is expected to:

(B) identify reasons why people have adapted to and modified their environment in Texas, past and present, such as the use of natural resources to meet basic needs, facilitate transportation, and enhance recreational activities; and

(C) compare the positive and negative consequences of human modification of the environment in Texas, past and present, both governmental and private, such as economic development and the impact on habitats and wildlife as well as air and water quality.

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

§113.15. Social Studies

(12) Economics. The student understands patterns of work and economic activities in Texas. The student is expected to:

(B) explain how geographic factors such as climate, transportation, and natural resources have influenced the location of economic activities in Texas;

(E) explain how developments in transportation and communication have influenced economic activities in Texas;

(13) Economics. The student understands how Texas, the United States, and other parts of the world are economically interdependent. The student is expected to:

(A) identify ways in which technological changes in areas such as transportation and communication have resulted in increased interdependence among Texas, the United States, and the world;

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;

(21) 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 and Texas;

(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, historical event, or current event; and

(E) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

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) identify simple main ideas expressed in art;

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) describe intent and form conclusions about personal artworks

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

§110.15. English Language Arts and Reading

(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) explain factual information presented graphically (e.g., charts, diagrams, graphs, illustrations).

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, and evaluative 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 information in text, maintaining meaning and logical order; and
- (F) make connections (e.g., thematic links, author analysis) between literary and informational texts with similar ideas and provide textual evidence.

7. Use of mathematical thinking and reasoning.

§111.16. Mathematics

(4.3) Number, operation, and quantitative reasoning. The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:

- (A) use addition and subtraction to solve problems involving whole numbers

(4.4) Number, operation, and quantitative reasoning. The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:

- (D) use multiplication to solve problems (no more than two digits times two digits without technology)

(4.5) Number, operation, and quantitative reasoning. The student estimates to determine reasonable results. The student is expected to:

- (B) use strategies including rounding and compatible numbers to estimate solutions to multiplication and division problems.

8. Opportunities to apply scientific knowledge.

§112.15. Science

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

- (D) analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured;
- (E) perform repeated investigations to increase the reliability of results

(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 exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

- (A) differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal;
- (B) differentiate between conductors and insulators;
- (C) demonstrate that electricity travels in a closed path, creating an electrical circuit, and explore an electromagnetic field