Unit 02: Roads

Content Area: **English Language Arts**
Course(s):
Time Period: **Trimester 1**
Length: **4-6 Weeks**
Status: **Published**

Brief Summary of Unit

This unit, focused on roads, is designed to guide exploration through several key investigations and culminate in a celebration of learning. The curriculum is structured to help participants:

• Explore the Topic: Begin by taking a walk around the building or the neighborhood to look at the road. Examine the school parking lot.

• Investigation #1: Visit the road in front of the school to make observational drawings. Create texture rubbings of different surfaces in the parking lot or paved surfaces around the school.

• Investigation #2: Invite a classroom visitor who uses roads in his or her work.

• Investigation #3: Invite a classroom visitor who builds or repairs roads or conduct a site visit to a road repair or construction site.

• Investigation #4: Invite a classroom visitor who works in road safety.

• Celebrate Learning: Conclude the study by sharing acquired knowledge and experiences. Invite peers and family members to visit for the celebration.

The unit incorporates a variety of learning experiences, including outdoor exploration, family partnerships, and diverse activities focusing on movement, discussion, and literacy

Essential Questions

- What do we know about roads? What do we want to find out?
- Did the roads you took to school today look like this road, this road, or both? (Provide a three column graph with photos of a straight road, a winding road, and both kinds of roads together.)
- What do you think we'll see on our walk today?
- What is this used for? (Display a road map.)
- Which of these roads is near our school? (Display a photo of the road in front of the school and one or two other interesting roads.)
- Would you rather ride in a car on this road or this road? (Display two photos of interesting roads.)
- Is this a road? (Show a picture of an interesting road, such as a dirt road or a tunnel.)

- What does this mean? (Display a green traffic light.)
- Is this a road? (Show a picture of an unusual road, e.g. Lombard Street in San Francisco, a traffic circle, a road through a tree.)
- Does this feel smooth or rough? (Allow children to examine a sample of a building material, such as sandpaper, a cinderblock, or a rock.)
- What is the name of the road where you live?
- Do roads make it easier to get jobs done?
- Can you get home without a road?
- What do you want to ask our visitor?
- Have you ever seen a bridge like this? (Display a photo of an interesting bridge.)
- What can we do with this? (Display a picture of an actual pop-up tunnel.)
- What is this for? (Display a picture of or an actual orange traffic cone.)
- What do you want to see on our visit today?
- What does this do? (Show a picture of a steamroller.)
- How can we fix this? (Show a cracked pail or plastic bin.)
- What happens when you shine a light on this? (Show a piece of reflective material or fabric.)
- Where should we build a road? (Offer a graph with multiple choices.)
- What do you want to add to our road plan? (Display the road plan that was started yesterday.)
- Can we make a road with this? (Display something familiar, such as a roll of paper towels, sidewalk chalk, or fabric.)
- Will this bridge hold this ____? (Create a bridge out of blocks and show an object to put on the bridge.)
- Do you know how to play “Red Light, Green Light”?
- What does this mean? (Show a picture of a Walk/Don’t Walk sign).
- What does this mean? (Display an interesting road sign.)
- What would you like to tell your family about the study of roads?
- What did you like best about this study?

Enduring Understandings

- The basic characteristics that define different modes of transportation, including parts of vehicles (wheels, windows, doors, steering mechanisms) and how different vehicles look and function.
- How vehicles move, such as rolling, flying, floating, and how they follow rules like stopping at red lights or driving on one side of the road.
- How people stay safe when using roads and vehicles, including the use of seat belts, crosswalks, signs, and signals.
- What different vehicles "eat" or use for fuel, such as gas, electricity, or human power (like pedaling a bike), and how those fuels help them go.
- The concept of transportation routes and travel, including how vehicles go from one place to another—near or far (e.g., buses to school, airplanes across the country).
- That different vehicles are designed for specific purposes, such as trucks that carry goods, fire trucks that help in emergencies, and buses that carry many people.
- The environments vehicles travel through, such as roads, bridges, railways, sidewalks, skyways, and waterways—and how these are built to support safe travel.
- The process of building roads and vehicles, including steps like planning, designing, constructing, and maintaining (using simple, child-friendly language and play).
- That various professions involve roads and transportation, including bus drivers, delivery workers, construction crews, crossing guards, and traffic officers.
- The helpful roles transportation plays in communities, such as helping people get to work or school, delivering packages, and supporting emergency services.
- The importance of using transportation safely and respectfully, including practicing pedestrian safety, wearing helmets, and being kind passengers and drivers.

Students Will Know

• Vocabulary: "road," "intersection," "lane," "sidewalk," "crosswalk," "traffic light," "sign," "vehicle," "highway," "bridge," "tunnel," "construction," "route," "safety," "transportation," "map," "destination," "detour," "pavement," "roundabout," "pedestrian," "speed," "direction," "travel," "driver," "passenger," "wheel," "engine," "stop," "go," and "signal"

• Road Features: The parts of a road and what they are used for (e.g., sidewalks for walking, lanes for driving)

• How People and Vehicles Use Roads: Different types of vehicles (cars, trucks, buses, bikes) and the ways people use roads to move from place to place

• Traffic Safety: How to stay safe around roads (using crosswalks, looking both ways, following traffic

signals)

• Road Signs and Signals: Common signs (stop, yield, pedestrian crossing) and what traffic lights mean

• Road Construction: How roads are built and repaired; people who help build and maintain roads (e.g., construction workers, engineers)

• Transportation Helpers: People who work with roads and vehicles (e.g., bus drivers, crossing guards, police officers)

• Types of Roads: Differences between highways, local streets, alleys, and dirt roads

• Maps and Navigation: Basic map skills and understanding how people use maps or GPS to find places

• Community Connections: How roads connect neighborhoods, schools, stores, parks, and other important places

Students Will Be Skilled At

- Observing and Identifying: Identifying different types of roads, road signs, and vehicles in the environment; observing traffic flow and how people move safely.
- Exploring Safely: Using classroom or outdoor materials (toy vehicles, cones, signs, pedestrian pathways) to safely explore roadways and transportation play.
- Drawing and Documentation: Making observational drawings of roads, vehicles, signs, and routes; taking photos or videos during neighborhood walks; documenting observations in journals or on transportation maps.
- Discussion and Shared Writing: Engaging in discussions about how transportation works, road safety, types of vehicles, and traffic signs; participating in shared writing about trips, traffic rules, or vehicle features.
- Comparing and Contrasting: Comparing vehicle sizes, speeds, number of wheels, or types of transportation (land, air, water).
- Caring for the Environment: Understanding how to keep roads and sidewalks clean and safe; participating in activities like “pretend construction crew” or litter clean-up.
- Reading and Research: Reading nonfiction books about vehicles, roads, and transportation systems; using age-appropriate maps or resources to learn about how people travel.
- Physical Movement: Moving like different vehicles (e.g., zooming like a car, flying like a plane, stopping and going with signals); participating in movement games involving traffic rules.
- Pattern Recognition: Identifying and completing patterns using traffic lights, vehicle types, or road shapes (e.g., car-bus-car-bus, red-yellow-green).

- Measurement and Quantity: Measuring ramp distances, counting wheels, estimating travel time, and using blocks or tools to measure vehicle sizes.
- Sorting and Categorizing: Sorting vehicles by size, type, color, or how they move (land, air, water).
- Asking Questions: Generating questions to ask visiting community helpers like bus drivers, crossing guards, or construction workers.
- Creative Expression: Creating transportation-themed books, murals, or building models of roads, bridges, and intersections using recycled materials.

Evidence/Performance Tasks

- Observational Drawings: Students create drawings based on walks and observations of roads, vehicles, signs, and traffic patterns.
- Discussion and Shared Writing: Contributions to daily large group discussions and shared writing activities reflect understanding of road safety, transportation, and how people and things move from place to place.
- Class Road Book/Science Journals: Children's entries in their science journals and the collaborative class "All About Roads" book serve as ongoing records of learning and observation.
- Question of the Day Responses: Daily responses to the "Question of the Day" prompts (e.g., "What vehicles have wheels?" or "Why do we need stop signs?") provide insight into comprehension and engagement.
- Road Safety Practice: Demonstrating knowledge and safe behavior during outdoor play involving crosswalks, tricycles, or sidewalk navigation.
- Hands-On Construction Projects: Participation in projects such as building roads with blocks, making traffic signs, or designing their own transportation maps.
- Photography Walks: Engaging in walks to observe and photograph roads, vehicles, and signs in the community or school vicinity.
- Exhibits/Displays: The final "Celebrating Learning" event showcases children’s investigations, transportation journals, maps, road drawings, and collaborative projects.
- Small Group Activities: Performance within various small group tasks such as "Stoplight Game," and "Road Building.”

Learning Plan

The learning plan is structured into daily activities within each major section (Exploring the Topic,

Investigations 1-5, and Celebrating Learning).

• Exploring the Topic: 5 days

• Investigation 1: 5 days

• Investigation 2: 5 days

• Investigation 3: 5 days

• Investigation 4: 5 days

• Investigation 5: 3 days

• Celebrating Learning: 2 days

Each day typically includes:

Interest Areas: Designated learning centers (e.g., Toys and Games, Discovery, Library, Technology, Music and Movement, Art, Dramatic Play, Block, Cooking) with relevant materials and prompts

Outdoor Experiences: Hands-on activities like using orange cones to make roads or paths around the play area, offering wood scraps, planks, large blocks, or bricks to build a bridge that can hold a child, take road-building materials to create a low beam, directing tricycle traffic or issuing traffic tickets for drivers who are unsafe, inviting children to establish and mark pedestrian crosswalks across the tricycle path, inviting children and families to explore and "travel" along the classroom road, "Red Light, Green Light," "Jump the River," "Exploring Pathways," "Moving Through the Forest," "Balance on a Beam," "Stop & Go," "Obstacle Course," and "Follow the Leader."

Family Partnerships: Engaging families through letters, inviting them to bring in road-related items, assisting with supervision, talking about roads in the community, discussing the name of the street on which they live on, discussing how to be safe passengers, and visiting the classroom to share expertise.

Wow! Experiences: Special events like walks around the school to look at the road, a visit to the school's parking lot, a walk to make observational drawings and crayon rubbings of different road surfaces, classroom visits from experts (a construction worker, delivery person, police officers, traffic flaggers, etc.), site visits to a construction site and roadwork site to watch people build or repair a road and see the materials used, and the final celebration of learning.

Question of the Day: A specific question to focus daily inquiry and discussion

Large Group:

Games: Engaging games like "Nothing, Nothing, Something," “My Name, Too!” “Sorting Syllables,” etc.

Songs/Poems/Rhymes/Chants: Singing songs such as “Here Is the Beehive,” “I Can Make a Circle,” “Three Rowdy Children,” “The Green Grass Grows,” “Listen for Your Name,” “Baa, Baa, Black Sheep,” “One, Two, Buckle My Shoe,” “Let’s Make Letters,” “Hello Bingo,” “Humpty Dumpty,” “Hello Friends,” etc. or reciting poems like "A Chat With a Cat"

Movement: Structured movement activities like "The Kids Go Marching In,” “Counting Calisthenics," “Echo Clapping,” “Mr. Forgetful,” “Busy Bees,” “Little Ball,” “A-Hunting We Will Go,” “This Old Man,” etc.

Discussion and Shared Writing: Focused discussions and collaborative writing on topics like "The Roads We Follow to School,” “What Can We See on the Road?” “Where Do Roads Go?” “What Do We Know About Roads?” “What Do We Want to Find Out About Roads?” “What Do Roads Look Like?” “Parts of a Road,” “Looking at Unusual Roads,” “What Are Roads Made Of?” “Road Names,” “ Why Do We Have Roads?” “Who Uses Roads?” “Expert Interview,” “Exploring Tunnels,” “Exploring Bridges,” "Maintaining Roads, “Builder Safety,” “Road Safety,” and preparing for/sharing learning at the celebration

Read-Aloud: Nonfiction and fiction books featuring roads, maps, traveling, construction, friendship or related topics are read daily, often with "Book Discussion Cards”

Small Group Options: Two differentiated small group options are provided daily, often linked to "Intentional Teaching Cards" (e.g., "Show Me Five,” “Nursery Rhyme Count,” “Story Problems,” “Let’s Go Fishing,” “Can You Find It?” “Walk a Letter,” “Shaving Cream Letters,” “Dramatic Story Retelling,” “Clothesline Storytelling,” “Stepping Stones,” “Board Games,” “Rhyming Chart,” “More or Fewer Towers,” “Rhyming Tubs,” “Geoboards,” “Patterns,” “Shake, Rattle, Roll,” “Picture Patterns,” “Knowing Our Friends,” “Shared Writing,” “Bookmaking,” “Guessing Jar,” “Which Has More?” “Walk a Letter,” “Action Patterns,” “Find the Matching Letter,” etc.) covering literacy, math, and science skills

Materials

- Objects/Materials: Toy traffic signs, toy cars, trucks, diggers, front-loaders, trains, floor rugs with road paths, toy racetracks, train tracks, plastic building bricks, sidewalk chalk, sturdy wooden planks, large hollow blocks, plastic or wooden crates, gravel or sand, rakes, shovels, hard hats, reflective vests, gloves, boots, traffic flags or batons, rolls of butcher paper, yellow paint, PVC, cardboard tubes,

cylinders, play tunnels, wooden dowels, poster board, cardstock, cardboard, large cardboard boxes, road maps, books that feature photos of roads, bridges or tunnels

- Pictures or Videos: interesting roads, bridges, or tunnels, roads made of different materials, roads around the school and in the community, traffic signs and lights, police officers or flaggers directing traffic, roads being repaired, striped, or cleaned, large construction vehicles building roads

Standards

I. Social/Emotional Development

- Standard 0.1: Children demonstrate self-confidence.

0.1.1 Express individuality by making independent decisions.

0.1.2 Express ideas for activities and initiate discussions.

0.1.3 Actively engage in activities and interactions with teachers and peers.

- Standard 0.2: Children demonstrate self-direction.

0.2.1 Make independent choices and plans from a broad range of diverse interest centers.

0.2.2 Demonstrate self-help skills.

0.2.3 Move through classroom routines and activities with minimal teacher direction and transition easily from one activity to the next.

- Standard 0.3: Children identify and express feelings.

0.3.1 Recognize and describe a wide range of feelings, including sadness, anger, fear, and happiness.

- Standard 0.4: Children exhibit positive interactions with other children and adults.

0.4.1 Engage appropriately with peers and teachers in classroom activities.

0.4.2 Demonstrate socially acceptable behavior for teachers and peers.

0.4.6 Demonstrate verbal or nonverbal problem-solving skills without being aggressive.

II. Language Arts Literacy

- Standard 1.1: Children participate in conversations and discussions.

1.1.1 Engage in conversations about familiar topics.

1.1.2 Ask and answer questions related to the topic.

- Standard 1.2: Children comprehend and use new vocabulary.

1.2.1 Use new vocabulary related to the topic.

1.2.2 Understand and follow multi-step directions.

- Standard 1.3: Children express themselves through and develop an appreciation of dramatic play and storytelling.

1.3.1 Play roles observed through life experiences.

1.3.3 Participate with others in dramatic play, negotiating roles and setting up scenarios using costumes and props.

- Standard 1.4: Children demonstrate emergent reading skills.

1.4.1 Show interest in books and print materials.

- Standard 1.5: Children demonstrate emergent writing skills.

1.5.1 Use drawing and writing to express ideas.

III. Mathematics

- Standard 3.1: Children use numbers and counting.

3.1.1 Count with understanding and recognize how many are in a set.

- Standard 3.2: Children identify and describe shapes.

3.2.1 Identify and describe two- and three-dimensional shapes.

3.2.2 Understand and use positional words.

- Standard 3.3: Children compare and measure.

3.3.1 Compare and order objects by length, size, weight.

3.3.2 Use non-standard units to measure.

- Standard 3.4: Children sort and classify objects.

3.4.1 Sort and classify objects based on one or more attributes.

- Standard 3.5: Children recognize and create patterns.

3.5.1 Recognize and extend simple patterns.

IV. Science

- Standard 4.1: Children explore and investigate the natural and physical world.

4.1.1 Observe and describe objects and events.

4.1.2 Ask questions about observations.

4.1.3 Conduct simple investigations to answer questions.

4.1.4 Make predictions and test them.

- Standard 4.2: Children understand properties of objects and materials.

4.2.1 Identify and describe properties of objects.

4.2.2 Explore how objects can be changed.

- Standard 4.3: Children understand basic concepts of force and motion.

4.3.1 Explore different ways objects move.

4.3.2 Understand that forces cause changes in motion.

- Standard 4.4: Children understand concepts related to structures and engineering.

4.4.1 Explore how structures are built and designed.

4.4.2 Use tools and materials to design and build.

V. Health, Safety, and Physical Education

- Standard 2.2: Children demonstrate large motor skills.

2.2.1 Demonstrate locomotor skills.

2.2.2 Demonstrate non-locomotor skills.

2.2.3 Demonstrate manipulative skills.

- Standard 2.3: Children demonstrate small motor skills.

2.3.1 Develop eye-hand coordination.

2.3.2 Demonstrate fine motor skills.

VI. Visual and Performing Arts

- Standard 5.1: Children express themselves through and develop an appreciation of dramatic play and storytelling.

5.1.3 Participate with others in dramatic play, negotiating roles and setting up scenarios using costumes and props.

- Standard 5.2: Children express themselves through and develop an appreciation of the visual arts.

5.2.1 Create two- and three-dimensional works of art while exploring color, line, shape, form, texture, and space.

VII. Social Studies, Family, and Life Skills

- Standard 6.1: Children understand themselves and their families.

6.1.1 Share information about themselves and their families.

- Standard 6.3: Children understand their community.

6.3.1 Explore and identify places and people in their community.

6.3.2 Understand the roles of community helpers.

- Standard 6.4: Children demonstrate problem-solving skills.

6.4.1 Identify a problem and generate possible solutions.

6.4.2 Use materials and resources to solve problems.

VIII. Technology

- Standard 8.1: Children use technology tools for learning and communication.

8.1.1 Explore and use various technological tools.

Suggested Strategies for Modifications

SUGGESTED STRATEGIES FOR MODIFICATIONS FOR SPECIAL EDUCATION STUDENTS, ELL, AT RISK AND STUDENTS GIFTED STUDENTS.

Using a variety of hands-on activities, movement, small group options, visual activities, along with discussions to support diverse learners and learning styles. Students experience hands-on exploration of technology and materials that provide multiple entry points for learners.

This link includes content specific accommodations and modification for all populations:

https://docs.google.com/spreadsheets/d/1fmQ5llgX1HZdIPa7duX33pfmonGDoVFag9eE2DpbLfM/edit?usp=sharing