*English Instructional Plan –Generating Questions for Research K-1*

**Primary Strand: Research K.12, 1.14**

**Integrated Strand/s: Communication and Multimodal Literacies-K.1, 1.1, Reading-1.10**

**Essential Understanding:**

**All students should:**

* understand that the research process begins by asking questions
* understand learners can answer questions using a variety of reference materials, to include pictures, texts, or people.

**Essential Knowledge, Skills, and Processes:**

To be successful with this standard, students are expected to:

* generate a topic of interest
* generate questions to gather information
* find answers to questions from provided resources

**Primary SOLS:**

K.12 b) Generate questions to gather information.

1.14 d) Find information from provided sources.

e) Record information.

**Reinforced (Related Standard) SOL:**

1.10 c) Set a purpose for reading.

f) Ask and answer who, what, where, when, why, and how questions about what is read.

**Academic Background/Language:**

Research in the K-1 standards of learning rely heavily on generating questions about a topic of interest. Asking questions is a cross-curricular skill that is developed throughout a student’s entire day so it is vital that teachers encourage and model asking a variety of questions and acknowledging that some questions will not have an answer. When asking students to find answers to their questions, visuals will be a primary resource to help scaffold research for all learners. It is a best practice to provide students with multiple opportunities to brainstorm questions in response to a picture or a title of a book (for example - Teacher shows cover of a book and students brainstorm questions about the pictures, title, …) This is a foundation for the Question Formulation Technique that can be used across grade levels.

Using inquiry stems or the 5 W’s may create a springboard for generating questions.

## Materials

* [All Kinds of Transportation](https://www.readworks.org/article/All-Kinds-of-Transportation/a4a0aa14-cff7-4d2e-b0a3-2901692c6883#!articleTab:content/contentSection:ea685f67-cbdd-458f-b42f-2e81f477a834/) Article-a-Day Set on Readworks.org
* Transportation Sound Effects (popular playlists found on YouTube or popular music streaming sites)
* Projector to show print version of article
* Chart paper or board space to create KWL chart

* [Transportation](http://web.b.ebscohost.com/ehk5/ebookviewer/ebook/ZTg2MHhuYV9fNjI1MDgzX19BTg2?sid=d864d13f-7d91-492c-a15d-3c45d4d0d306@sessionmgr103&vid=1&format=EB&rid=1) by Daniel Nunn eBook found in Library of Virginia
* Varied print books about modes of transportation/Computer access

## Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. Play transportation sound effects. Students will guess what type of transportation is making the sound. Teacher will encourage students to ask questions about their guesses, such as, “How big do you think that car is?” or “How fast do you think that bicycle can go?’”
2. Brainstorm modes of transportation on board/chart paper. Circle 3 modes of transportation that are of biggest interest to students.
3. Together, create a KWL (Know, Wonder, Learn) chart for one mode of transportation. The “L” may remain empty until later. Use inquiry stems to assist with the Wonders. Possible research stems include:

* I wonder…
* How does it…
* What’s the fastest/slowest/biggest…

(Option: Use partner pairs to allow students to create wonder questions to encourage listening/speaking.) Teachers are reminded that KWL charts offer an opportunity for varied background knowledge- what some students already know, will be what some students learn.

1. Add in a 4th column (on a separate sheet of paper if needed) for H- How can we find answers to our wonders? The goal is to create a list that includes pictures, texts and people as sources of research.
2. Choose a single article from ReadWorks.org “All Kinds of Transportations” Text Set that fits with the class KWL chart. (Readworks.org has a helpful video of teachers using the Article of the Day in primary classrooms.) After the first reading, review the “Ws” in the KWL chart. Acknowledge and document any wonders that were answered.
3. Have students brainstorm ways to find the answers to their additional wonders. Additionally, the teacher can have students brainstorm new wonders.
4. Next, read the eBook, Transportation by Daniel Nunn. This book asks a series of true/false questions with pictures of various forms of transportation. Or, teachers may continue with an article from “All Kinds of Transportation” from Readworks.org
5. Revisit KWL chart to see if any wonders were answered.
6. Have students generate data to the survey question, “What is your favorite type of transportation?” Teachers can provide sticky notes to collect data or have students mark on chart paper.
7. Have students create their own KWL chart independently or in small groups about their favorite type of transportation, reminding them that their L column may be empty until they research.
8. Provide opportunity for students to find answers to their wonders via print books or appropriate technology sources.
9. If desired, students can create a “Can, Have, Are” summary piece about their researched form of transportation. This may come from their favorite mode of transportation or the whole-class KWL chart.

**Assessment (Diagnostic, Formative, Summative)**

* Monitor student responses during the lesson to check for understanding
* Move the KWL organization method from whole group to small group/independent
* Completed document about transportation research
* Maintain oral checklists and/or take anecdotal records to assess communication during classroom discussions

**Writing Connections:**

* Students will organize their information in a KWL graphic organizer.
* Students can create a document using their research about their favorite mode of transportation using the “Can, Have, Are” method (for example - Boats can move slow or fast. Boats have a rudder. Boats are good for fishing.)

**Extensions and Connections (for all students)**

* Students can create images of a mode of transportation and label the parts.
* Students can learn to identify questions as thick or thin questions or open ended/close ended. The Question Formulation Technique (QFT) is a step-by-step process that guides students to generate, improve, and use their own questions as a basis for their research or learning. It begins with the teacher sharing a question focus (a picture, a sound, a statement, …) and asking students to brainstorm questions. Teacher may model the questioning process by making statements like “I’m wondering…”. After a bank of questions has been established for the topic, the teacher can facilitate a discussion helping students identify questions as open-ended/thick questions or close-ended/thin questions. Open-ended questions often involve explanations or lots of details to answer. They often begin with “Why...What if…or How…” Closed-ended/thin questions are often specific and can be answered in only a few words. Closed-ended questions often begin with, “Who... or How many...” Teachers may model in the beginning by saying statements such as “I know this is a thin question because this can be answered with a yes or no.” Students can learn how to turn a closed-ended question into an open-ended question. For example, closed-ended question, “Who built the first car?” can become the open-ended question, “How did the designer of the first car convince others it was a good idea?” Students then prioritize their questions to guide their research. Priority questions for research should be open-ended questions.
* The teacher can facilitate the class to make a class book about modes of transportation.
* Teachers and students can use photographs, book, or a search engine (examples include: Early World of Learning, World Book online early childhood digital resource) to research their specific mode of transportation. This can be accessed via your public library’s website or <http://finditva.com/k-5/>.
* First grade teachers may want to choose other researchable topics such as “Ecosystems” or “Habitats” for students to choose from to research. Many of the above-mentioned resources will provide ample material for students and teachers to support their content curriculum objectives.

**Strategies for Differentiation**

* Provide pre-written inquiry stems on cards for students to see and use.
* Use a picture of a mode of transportation in the middle of a bubble web and add wonders around the picture.
* Utilize various Lexile levels of print about transportation methods.
* Rely on the 5 W’s to help students generate questions that have accessible answers. For example:

Who uses this?

What is this?

Where can I find these?

When can I drive this?

Why do people use this?