Unit of Inquiry - First and Second Grade

Transdisciplinary Theme: How the World Works

An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.

Central Idea:

People adapt to changes in the environment.

Lines of Inquiry:

- People use different resources to adapt to their surrounding environment.
- Transportation and other forms of technology are some ways people have progressed and better adapted to their environment.
- Muslims strive to adapt to change according to the Quran and Sunnah.

Key concepts:

- Causation: Why is it like it is?
- Change: How is it changing?

Content & Standards Covered

Math

Students will be able to:

- Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
- Reason with shapes and their attributes.
- Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
- Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.4
- Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

- Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.
- Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Reading/Language Arts

Students will be able to:

- Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
- Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
- Explain major differences between books that tell stories and books that give information
- Identify who is telling the story at various points in a text.
- Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
- Describe how reasons support specific points the author makes in a text.
- Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).
- Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- Decode two-syllable words following basic patterns by breaking the words into syllables.
- Know spelling-sound correspondences for additional common vowel teams.
- Decode regularly spelled two-syllable words with short and long vowels and words with common prefixes and suffixes.
- Write informative/explanatory texts in which they introduce/name a topic, supply some facts, definitions, and details about the topic, provide some sense of closure, and revise/edit writing.
- Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

- Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- Ask for clarification and further explanation as needed about the topics and texts under discussion.
- Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- Print all upper- and lowercase letters.
- Use common, proper, and possessive nouns.
- Use singular and plural nouns with matching verbs in basic sentences
- Use personal, possessive, and indefinite pronouns
- Use verbs to convey a sense of past, present, and
- Capitalize dates and names of people.
- Use end punctuation for sentences.
- Use collective nouns
- Form and use frequently occurring irregular plural nouns
- Use reflexive pronouns.
- Form and use the past tense of frequently occurring irregular verbs.
- Use adjectives and adverbs, and choose between them depending on what is to be modified.
- Capitalize holidays, product names, and geographic names.

Science

Students will be able to:

- will examine change over varying time periods, and will recognize that more than one variable may affect change. They will be aware of different perspectives and ways of organizing the world, and they will show care and respect for themselves, other living things and the environment.
- Observe carefully in order to gather data
- Use scientific vocabulary to explain their observations and experiences
- Identify or generate a question or problem to be explored
- Interpret and evaluate data gathered in order to draw conclusions
- recognize that imagination contributes to scientific developments
- explore the use of imagination as a tool to solve problems (for example, particular inventions, scientific discoveries).
- investigate and identify the properties of air
- examine how people use air in their everyday lives (for example, transportation, recreation)

Social Studies

Students will be able to

- will start to develop an understanding of their relationship with the environment. They will gain a greater sense of time, recognizing important events in their own lives, and how time and change affect people. They will become increasingly aware of how advances in technology affect individuals and the environment.
- Formulate and ask questions about the past, the future, places and society
- Use and analyze evidence from a variety of historical, geographical and societal sources
- explore how systems influence lifestyle and community
- compare transportation systems within the local community to those in other communities
- explain how and why changes in transport have occurred over time
- examine the impact of technological advances in transport on the environment.
- identify and describe the functions of various public places in the community
- demonstrate how various public places serve the needs of people in a community
- compare and contrast the functions of public and private places.

Art

Students will be able to:

- Identify formal elements of an artwork
- Use appropriate terminology to discuss artwork
- Describe similarities and differences between artworks
- Make predictions, experiment, and anticipate possible outcomes
- Express an appreciation for natural resources through the use of upcycled, recycled, refurbished and found objects in their art projects
- Create a color wheel demonstrating an understanding of primary, secondary, complementary, and analogous colors
- Explore the relationship between positive and negative spaces and how one cannot exist without the other
- Draw one-point linear perspective and experience another way of organizing their drawings

Quran & Islamic Studies

Students will be able to:

- Discuss how Muslims should adapt to their environment with Islam in mind.
- Investigate various companions of the Prophet (*sallallahu alaihi wasallam*) and how they had to survive their situations.
- Explain the story of Bilal ibn Rabah's conversion to Islam.
- Write about how Bilal is known for his steadfastness in his belief.
- Examine the story of Ammar Ibn Yasir and his parents.
- Listen to the story of Salih (*alayhis salaam*).

- Write about how Salih (*alayhis salaam*) had to adapt to his environment.
- Categorize what a Muslims needs to do to stay on the right path.
- Compose a list of items a Muslim will need to adapt in any environment while still believing in Islam.

Arabic

Students will be able to:

- read texts at an appropriate level, independently, confidently and with good understanding
- understand sound-symbol relationships and apply reliable phonetic strategies when decoding print
- use single words and two- word phrases in context (هذه سيارة _اركب الطائرة)
- realize that word order can change from one language to another
- Use own grammar style as part of the process of developing grammatical awareness.
- listen to and enjoy stories read aloud; show understanding by responding in oral, written or visual form
- distinguish beginning, medial and ending sounds of words with increasing accuracy
- talk about the stories, writing, pictures and models they have created
- begin to communicate in more than one language (تعارف باللغة العربية)
- engage confidently with the process of writing (وسائل المواصلات)