

The background features a dark blue gradient with faint, light blue circular patterns and a scale. The scale is a large arc on the left side, with numbers ranging from 140 to 260 in increments of 10. There are also several smaller circles and dashed lines scattered across the background, some with arrows indicating direction.

SUPPORTING SCIENCE LEARNERS OUTSIDE THE CLASSROOM

PARENT PRESENTATION MAY 2023

SCIENCE TALK: CONVERSATIONS ROUTED IN CURIOSITY AND WONDER

- Children are fascinated by the Natural World and Science.
- May ask many questions that can be difficult to answer.
- Perfect opportunity to model how people seek resources to find answers.
- Research answer together with simple a web-search, short educational video or finding a children's book on the topic.
- Answering the initial question may satisfy her/his curiosity, OR generate new inquiries.
- Wonderings can inspire a student to become passionate about specific topics, like sharks or planets.

SCIENCE READING: EXPLORE CHILDREN'S NON-FICTION AND SCIENCE PICTURE BOOKS TOGETHER

- Encourage student to explore **non-fiction books** about Science and Nature.
- *All About Books* explore a single topic in sections with detailed pictures or illustrations. Example: “Sharks” by Scholastic Books
- *Narrative Non-fiction* are science books with characters and plot line often framed as an adventure. Example: “Magic School Bus”
- *Picture Books* explore science topics with colorful illustrations and engaging text. Example: “Shark Lady” by Jess Keating.
- Explore diversity in science (Woman scientists, People of Color and Indigenous perspectives) “Ada Twist, Scientist”

SCIENCE INVESTIGATIONS: USING MATERIALS TO EXPLORE SCIENCE (STEM OR STEAM)

- Use simple home goods and/or STEM kits to explore scientific principals and laws, like magnetism, momentum, gravity, chemical reactions, air pressure and more.
- Online content: [Sick Science](#) on YouTube presents safe, simple experiments that be done at home using basic household items.
- <https://www.youtube.com/@sickscience>
- STEM Kits: KiwiCo, Discovery, National Geographic and other companies sell building systems and kits.
- Create an **Engineering Challenge**: Tallest tower, Falling egg, Paper Airplane, Paper Kites, or Bridge Building

SCIENCE OBSERVATIONS: SEEK OUT OPPORTUNITIES TO OBSERVE SCIENCE & NATURE

- **Nature walks:** Get outdoors to the city parks, beaches and riverfronts. Observe the changing of the seasons and animal behaviors.
- **Bird watching:** Observe migrating birds to identify species, male and female plumage, and listen to bird song.
- **Rock collecting:** Collect rocks and minerals. Identify rock types via color, pattern and luster. Categorize by sedimentary, igneous and metamorphic. Rock polishing kits are also great.
- **Growing plants:** Watching something grown and change over time is a valuable science learning experience.

SCIENCE EXPERIENCES: VISIT THE WONDERFUL SCIENCE INSTITUTIONS OF NYC, NJ OR AT HOME

- **Museums:** Visit the American Museum of Natural History, Queens Hall of Science or Liberty Science Center, NJ. Permanent and special exhibits will create curiosity, wonder and great memories.
- **Math Museum at Union Square:** Explore STEM through interactive exhibits.
- **Zoos & Aquarium:** Explore animal conservation at the Bronx Zoo, Central Park Zoo and New York Aquarium, Coney Island.
- **Parks and Botanical Gardens:** Observe the plants and animals in the city parks and Bronx or Brooklyn Botanical Gardens.
- **Butterfly or Ant Farm:** Observe the metamorphosis of caterpillars or the social society of ants at work. (Pill bugs, SeaMonkeys, Triops, Ladybugs)

SCIENCE JOURNALING: CREATE A PERSONAL SCIENCE JOURNAL

- **Sketch and draw:** Fill the journal with sketches of observations. Younger students love to draw what they see.
- **Labeled diagrams:** Create simple diagrams with labeled words that she or he has learned.
- **Write** simple observation or "how to" steps for an activity or descriptions.
- **Create** a science or nature-themed comic strip, story or science adventure.
- **Write in the voice** of an animal, plant or object. Example, "The Story of a Raindrop: How I went through the Water Cycle"
- **Collect & Record Data:** Temperatures, weather patterns, etc.

TECHNOLOGY: USE TOOLS TO GATHER INFORMATION

- Internet Searches: Use Google to explore resources and images.
- Software & Apps: Explore fun science content for kids.
- Measurement tools: Use thermometer, scale, measuring cups, rulers and measuring tape to gather numerical data.
- Microscope & magnifying glass: See things up close!
- Build Circuits: [Snap Circuits](#) STEM Kit
- Coding: Write simple code using kids software
- Binoculars & Telescope: Star gazing & bird watching.
- Cooking recipes: Baking and cooking are simple experiments in chemistry and demonstrate physical property changes & measurement.