

Weather & Climate - STEM - 3rd Grade Trimester 1

Additional Resources, Activities, and Supports

Writing Assessment: Choose one of the kinds of hazardous weather below. Then write a paragraph explaining how you and your family would protect yourself if that kind of storm were about to reach you.

- **Thunderstorm**
- **Hurricane**
- **Tornado**
- **Blizzard**
- **Derecho**

Other Formative Assessments:

- **Teacher questions**
- **Class discussions**
- **Optional quizzes related to 3rd grade Science Standards/Enduring Understandings**
- **Related Math activities**
- **Related English Language Arts activities**

- **Writing Activities: Empowering Writers Teaching Points for STEM**

- Expository vs. Narrative (Fiction vs. Non-fiction)
- Expository Writing Pillar
- Sorting and organizing details (into main ideas)
- Pick, List, Choose strategy
- Word Referents
- Specific vs. General details
- Elaborative Segment
- Fact vs. Opinion
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- **Provide students with an opportunity to help people who have been negatively impacted by severe weather.**

- **Math Activities for STEM**

- Have students use weather related data to create word problems to share in small groups.
- Reason abstractly and quantitatively

- **CAFÉ Strategies for STEM**

- Comprehension
 - Use prior knowledge to connect with text
 - Make and adjust predictions; use text to confirm
 - Infer and support with evidence
 - Make a picture or mental image
 - Monitor and Fix Up
 - Check for Understanding/ Back Up and Reread
 - Ask questions throughout the reading process
 - Use text features (titles, headings, captions, graphic features)
 - Determine and Analyze author's purpose and support with text

- Recognize and explain cause-and-effect relationships
- Accuracy
 - Abundant easy reading
 - Look carefully at letters and words
 - Cross Checking... Do the pictures and/or words look right? Do they sound right? Do they make sense?
 - Flip the Sound
 - Use beginning and ending sounds.
 - Blend sounds; stretch and reread
 - Chunk letters and sounds together
 - Skip the word, then come back
 - Trade a word/guess a word that makes sense
 - Recognize words at sight
- Fluency
 - Voracious reading
 - Read appropriate level texts that are a 'good fit'
 - Reread text
 - Practice common sight words , high-frequency words , & Red words
 - Adjust and apply different reading rates to match text
 - Use punctuation to enhance phrasing and prosody (end marks, commas, etc.)
- Expanding Vocabulary
 - Voracious reading
 - Tune in to interesting words and use new vocabulary in speaking and writing
 - Use prior knowledge and context to predict and confirm meaning
 - Use word parts to determine meaning of words
 - Use dictionaries, thesauruses and glossaries as tools
 - Use pictures, illustrations and diagrams
- Model with mathematics
- Use appropriate tools strategically
- Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l)
- Add, subtract, multiply, or divide to solve one-step word problems involving masses of volumes that are given in the same units, by using drawings (such as beaker with a measurement scale) to represent the problem.
- Draw a scaled picture graph and scaled bar graph to represent a data set with several categories. Solve one- and two- step "how many more" and "how many less" problems using information presented in bar graphs.

Third Grade Books

First Trimester – Earth Science - Seasons, Climates of the World, Weather related hazards:

- Tornadoes! by Gail Gibbons
- Flash, Crash, Rumble, and Roll by Franklyn Mansfield Branley
- Silly Lilly and the four seasons : a toon book / by Agnes Rosenstiehl
- Changing seasons / Bobbie Kalman & Kelley MacAulay
- Moominland midwinter / Tove Jansson ; translated by Thomas Warburton
- Weather / Janice Parker
- Why do the seasons change? / Melissa Stewart

- What is climate? / by Ellen Lawrence
- Monsoon afternoon / written by Kashmira Sheth ; illustrated by Yoshiko Jaeggi
- Cloudy with a chance of meatballs by Judi Barrett
- Weather / Seymour Simon
- On the same day in March : a tour of the world's weather / Marilyn Singer ; illustrated by Frane Lessacoffrey
- Groundhog predicts the weather / Bruce Koscielniak
- Fearsome forces of nature / Anita Ganeri.
- Wild weather / Anita Ganeri
- Climates of the world : identifying and comparing mean, median, and mode / Barbara Linde
- Looking at weather and seasons : how do they change? by Royston, Angela