



Science Content for Primary

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What is Science?



- Science is a system of acquiring knowledge. This system uses observation and experimentation to describe and explain natural phenomena.



Scientific Inquiry

- Full Inquiry involves asking a simple question, completing an investigation, answering the question, and presenting the results to others

Kinds of Inquiry



- Structured Inquiry
- Guided Inquiry
- Open Inquiry

The 5 E Science Lesson Model

A vertical sequence of celestial bodies is arranged on the right side of the slide. From top to bottom, they are: a crescent moon, a bright orange sun, a blue and white Earth, a grey and brown Mars, a large striped Jupiter, a ringed Saturn, a light blue Uranus, and a dark blue Neptune.

- 1. Engage
- 2. Explore
- 3. Explain
- 4. Expand/Elaborate
- 5. Evaluate

The Study of Science Includes:



- Life Science
- Physical Science
- Earth and Space Science

Reading About Science Topics



- Expository Books
- Expository Text Features
- Technical Vocabulary

Graphic Organizers

A collection of celestial bodies including the Moon, Sun, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune arranged in a descending arc from top-left to bottom-right.

- To be used with expository text
- To be used to recall information, to retrieve information, to revisit information, and to review information

Technical Vocabulary

A vertical arrangement of celestial bodies including the Moon, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.

- Use graphic organizers
- Use D. Zike foldables
- Use Pre-Teaching Vocabulary lessons
- Use word walls, dictionaries, and individual picture glossaries

Writing About Science



- Use a Science Notebook
- Use specific scientific vocabulary when labeling the scientific drawings
- Form predictions and record confirmations of thinking
- Record data

Science and English Language Learners



- Use of cognates to support vocabulary development
- Incorporate role playing to create meaning of text
- Cooperative learning/cooperative dialogue

Vocabulary Instruction



- Identifying Tier 1, 2 and 3 words
- Use Taking Inventory strategy
- Use STAR Model
- Use Pre-teaching Vocabulary Lesson

Marzano's Vocabulary Approach

A collage of celestial bodies including the Moon, Mars, Earth, Jupiter, Saturn, and Uranus, arranged in a descending arc from top-left to bottom-right.

- 1. Provide a description, explanation, or example of the new term (along with a nonlinguistic representation)
- 2. Ask students to restate the description, explanation, or example of the new term in their own words
- 3. Ask students to construct a picture, symbol, or graphic representing the term or phrase

Marzano: Continuation

A collage of various celestial bodies including the Moon, Mars, Earth, Jupiter, Saturn, and Uranus, arranged in a descending arc from top-left to bottom-right.

- 4. Engage students in activities that help them add to their knowledge of the terms in their notebooks.
- 5. Ask students to discuss the terms with one another
- 6. Involve students in games that allow them to play with the terms.

Out with the old In with the New



- Comparing the Science TEKs with the **NEW** Science TEKS
- Implications for the classroom

Discovering Wonder





Discovering Wonder

- Science helps answer questions.
- Learning science helps you come up with new questions.