

Atomic Theory

Since Dalton's Atomic Theory was discovered, scientists have made a few changes. Instead of believing that atoms are the smallest particle of matter, scientists now realize that atoms are made up of even smaller particles called protons, neutrons, and electrons. They also know that different atoms exist. These atoms differ by weight and are referred to as isotopes. Scientists today know that atoms can be destroyed, unlike Dalton's theory. Nuclear reactions can destroy atoms, while chemical reactions cannot. The updates in Dalton's Atomic Theory, his research was the foundation of chemistry's understanding of the atom.

Atomic Theory

Matter is a part of everything. From pencils, pens, bicycles, and airplanes, it inhabits all of the objects in our world. What makes up matter? The Greek Philosopher Democritus wondered about this more than 2000 years ago. After some research, he claimed that matter was made of atoms. However, unfortunately, no one took him seriously, and his ideas were dismissed. Fast forward 2000 years to the present, we now consider

Atomic Theory

Name: _____

6. What does the word investigating mean?
 - a. asking
 - b. looking for
 - c. deciding
 - d. studying
7. Each of the following is a basic principle of Dalton's Atomic Theory except
 - a. Atoms contain protons, neutrons, and electrons.
 - b. Atoms of the same element have the same weight.
 - c. Everything contains atoms.
 - d. Atoms can join together to form compounds.
8. How many atoms exist?
 - a. Over 10
 - b. Over 100
 - c. Over 200
 - d. Over 500
9. What is the logical connection between Dalton's Atomic Theory and the discovery of the atom in the 1800s?
 - a. Dalton's theory was good then, and no changes have been made since the 1800s.
 - b. Dalton's theory was good then, but now scientists dislike it.
 - c. Dalton's theory was not good, so scientists changed it.
 - d. Dalton's theory was good then, but scientists have more evidence now and have learned more.
10. What does the word revisited mean?
 - a. to go to a new place
 - b. to leave something alone
 - c. to come back to something

Atomic Theory

Name: _____

1. Select the word or phrase from the paragraph that helps the reader understand the meaning of the word indivisible.
 - a. everything contains atoms
 - b. atoms are the smallest particle of matter that exists
 - c. atoms cannot be altered
 - d. this means they cannot be divided, created, or destroyed
2. What example does the author use to support the idea that scientists have changed Dalton's Atomic Theory?
 - a. Dalton's Atomic Theory is primarily still used today.
 - b. Dalton's research was the foundation of chemistry's understanding of the atom.
 - c. Scientists now realize that atoms are made up of even smaller parts.
 - d. Using all of this research, Dalton created the Atomic Theory.
3. Where in the text does the author show evidence to support the claim that Dalton's research gave chemistry a basis for the atom?
 - a. Paragraph 1
 - b. Paragraph 2
 - c. Paragraph 3
 - d. Paragraph 4
4. What is the main idea of paragraph 3?
 - a. Everything contains atoms.
 - b. Dalton's Atomic Theory had three fundamental principles.
 - c. Two or more atoms together can form compounds.
 - d. Dalton's research proved that atoms exist.

This resource includes:

- Teacher Tips
- Questions to Ask Students
- Student Bookmarks:
 - Close Reading Steps
 - Annotate/Mark the Text
- Informational Text: Atomic Theory
- 10 Multiple Choice Questions
- 7 Graphic Organizers
- Answer Key

Atomic Theory

Since Dalton's Atomic Theory was discovered, scientists have made a few changes. Instead of believing that atoms are the smallest particle of matter, scientists now realize that atoms are made up of even smaller particles called protons, neutrons, and electrons. They also know that different atoms exist. These atoms differ by weight and are referred to as isotopes. Scientists today know that atoms can be destroyed, unlike Dalton's theory. Nuclear reactions can destroy atoms, while chemical reactions cannot. The updates in Dalton's Atomic Theory, his research was the foundation of chemistry's understanding of the atom.

Fun Facts

- Even today, scientists are still trying to understand the atom.
- Your body is made up of atoms.
- Over 100 different types of atoms exist.

Annotate the Text

1 Number the paragraphs

2 Underline important statements

3 Circle unknown words

4 Question? Confusing?

5 Interesting!

Atomic Theory

Matter is a part of everything. From pencils, pens, bicycles, and airplanes, it inhabits all of the objects in our world. What makes up matter? The Greek Philosopher Democritus wondered about this more than 2000 years ago. After some research, he claimed that matter was made of atoms. However, unfortunately, no one took him seriously, and his ideas were dismissed.

Fast forward 2000 years later, and the idea of the atom was considered again. In the 1800s, a man named John Dalton revisited the idea of the atom. He was an English physicist and chemist who enjoyed conducting research. During his research, John proved that atoms do exist, showing that Democritus was correct. Dalton determined that atoms existed from his close analysis of gases and compounds. When investigating gases, Dalton realized that gases must consist of tiny particles that frequently move. This is why gases are widespread.

Dalton's Atomic Theory

Using all of this research, Dalton proposed his Atomic Theory. According to his theory, matter is made up of tiny particles called atoms. Atoms cannot be created or destroyed. Atoms are indivisible particles, which cannot be created or destroyed. This means they cannot be divided, created, or destroyed.

2. All atoms of a given element have the same chemical properties.
3. The relative mass and chemical properties of different atoms are constant.
4. The relative mass and chemical properties of different atoms are constant.

The principles above combine to create Dalton's Atomic Theory.

Non-Fiction Passage

Atomic Theory

Name:

6. What does the word investigating mean?

- a. asking
- b. looking for
- c. deciding
- d. studying

7. Each of the following is a b

- a. Atoms contain
- b. Atoms of the s
- c. Everything con
- d. Atoms can join

8. How many atoms exist?

- a. Over 10
- b. Over 100
- c. Over 200
- d. Over 500

Atomic Theory

Name:

1. Select the word or phrase from the paragraph that helps the reader understand the meaning of the word indivisible.

- a. everything contains atoms
- b. atoms are the smallest particle of matter that exists
- c. atoms cannot be altered
- d. this means they cannot be divided, created, or destroyed

2. What example does the author use to support the idea that scientists have changed Dalton's Atomic Theory?

- a. Dalton's Atomic Theory is primarily still used today.
- b. Dalton's research was the foundation of chemistry's understanding of the atom.
- c. Scientists now realize that atoms are made up of even smaller parts.
- d. Using all of this research, Dalton created the Atomic Theory.

Where in the text does the author show evidence to support the claim that Dalton's research gave chemistry a basis for the atom?

- a. Paragraph 1
- b. Paragraph 2
- c. Paragraph 3
- d. Paragraph 4

4. What is the main idea of paragraph 3?

- a. Everything contains atoms.
- b. Dalton's Atomic Theory had three fundamental principles.
- c. Two or more atoms together can form compounds.
- d. Dalton's research proved that atoms exist.

Which of the following details is most important to the topic of why research on the Atomic Theory wasn't confirmed until the 1800s?

- a. After some research, Democritus claimed that matter was made of atoms.
- b. A Greek philosopher and chemist who enjoyed conducting research.

10 Multiple
Choice
Questions

Close Reading

Close Reading: A reading strategy that is used to comprehend and analyze a text closely. Students will typically read the text at least twice for comprehension, details, analysis, and deep questioning of the text's purpose and meaning.

Steps for Close Reading:

1. Read the Text
2. Mark Up the Text or Annotate the Text
3. Read the Text Again
4. Define Unknown Words
5. Read the Text Again
6. Respond to Reading

Includes:

- Teacher Tips
- Questions to Ask Students
- Close Reading Steps - Bookmark
 - Version with "Mark the text"
 - Version with "Annotate the text"
- Steps to "Mark the Text" Bookmark
- Steps to "Annotate the Text" Bookmark
- Informational Text: The
- 10 Multiple Choice Questions
- 7 Graphic Organizers

Teacher Tips & Suggestions

Questions to Ask Students

- What is the text mostly about?
- Who is the audience for this text?
- What's is the writer's purpose of this text?
- What's your favorite part of the passage?
- What words are new to you? What do you think the words mean?
- What detail stands out to you?
- What questions do you now have about the topic?
- If you can ask the author 2 questions, what would you ask them?
- In this paragraph, what is the author saying?
- What is the structure of the text? How does it help

Teacher Tips

Close reading: A reading strategy that is used to comprehend and analyze a text closely. Students will typically read the text at least twice for comprehension, details, analysis, and deep questioning of the text's purpose and meaning.

1. Read the Text: When students read the text for the first time, they are reading just to identify what the passage is mostly about. The first read is surface level and allows the students to understand the gist of the text.
2. Mark Up the Text or Annotate the Text: Encourage students to use their annotation bookmarks (provided below) to make notes directly on the text. Students can write in the margins, use sticky notes to make notes, use color coding. You can even slip the text inside a dry-erase pocket and encourage students to use dry-erase markers to mark up the text.
3. Read the Text Again: If the teacher is working with the students for this, the teacher can read the text aloud this time. Model think-alouds and use expression while you read. If students are working with partners in a station, encourage them to each read a paragraph then switch readers.
4. Define Unknown Words: During this step, invite students to circle any unknown or unfamiliar words. Use the provided graphic organizer to select 4-5 unknown words and work to identify the meaning of each word.
5. Read the Text Again: With this third time reading the text, encourage the students to read the passage independently.
6. Respond to Reading: Students will now use the text to answer the 10

Graphic Organizers

- Main Ideas with Text Evidence
- Central Ideas with Text Evidence
- Central Ideas with Details
- Main Idea, Details, Conclusion
- KWL: What I Know, What I Want to Know, What I Learned
- Overview: Topic, Author's Purpose, Key Vocabulary, Most Important Thing, I Wonder, Important Facts, Illustration
- Context Clues (3 Versions: 3 words, 4 words, 5 words)
- Arthropods

Name: _____

Unknown Word	Context Clue	Word Meaning

Name: _____

What I Know	What I Want to Know	What I Learned

Name: _____

Topic	Author's Purpose
Key Vocabulary	Most Important Thing
Important Facts	Illustration

Graphic Organizers

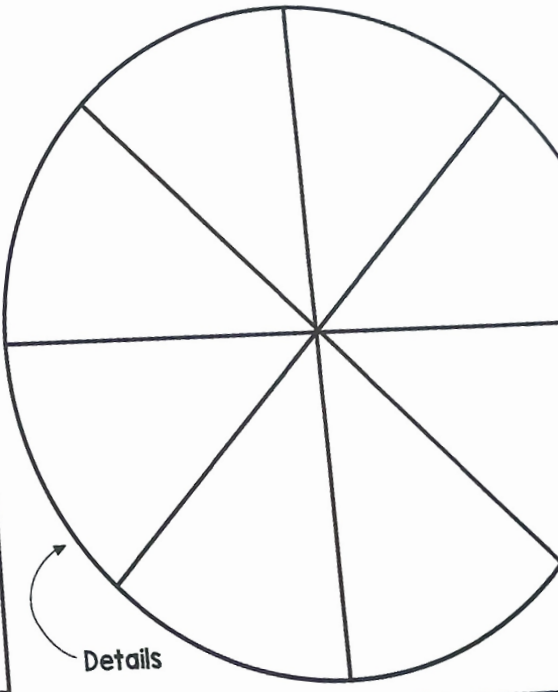
Ideas for Use

- Science or ELA Stations
- Whole Group Instruction
- Partner Practice
- Guided Reading Groups
- Substitute Plans
- Send home to practice
- ELA Work Stations or Centers
- Assessment

Unknown Word	Context Clue

Name: _____

Central Idea



Details

Name: _____

Main Ideas

- 1
- 2
- 3

Text Evidence #1

Text Evidence #2

Text Evidence #3

Name: _____

Main Idea

Detail

Graphic Organizers

Purchase now to
connect science
and literacy
in your
classroom!