

Name: _____

Bill Nye: Atoms

Vocabulary

atom	electron	element	matter	molecule	neutron	nucleus	proton	quark
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Use the word bank above to fill in the blanks.

1. Anything that has mass and takes up space is _____.
2. A positively charged particle in an atom is the _____.
3. A(n) _____ is the smallest unit of a chemical compound that retains the properties of the compound.
4. A(n) _____ is matter that is composed of only one kind of atom.
5. A negatively charged particle in an atom is the _____.
6. A(n) _____ is the smallest particle of an element that retains the properties of that element; the building blocks of matter.
7. A particle with no charge that is found in an atom is the _____.
8. An elementary particle that makes up protons & neutrons is a(n) _____.
9. The _____ is the core of the atom, made up of protons & neutrons.

Knew/New

Write down 3 things you already knew about chemical reactions that were confirmed through watching the video:

- 1.
- 2.
- 3.

Write down 3 new things that you learned from watching the video:

- 1.
- 2.
- 3.

Episode Guide

1. What does the Greek word for atoms mean? _____
2. The heavy particles of an atom are located _____.
3. Atoms are mostly made up of _____.
4. _____ & _____ are located in the nucleus of an atom.
5. Where are the electrons found? _____
6. Atoms are so small that you could fit how many on the head of a pin? _____
7. What makes 1 atom different from another? _____
8. What does the atomic number tell you about an element? _____
9. Anything that is not matter is a form of _____.
10. What element is found in every living thing? _____

True or False

- | | | | |
|---|---|----|---|
| 1. Atoms are mostly empty space. | T | or | F |
| 2. Each element has a specific number of protons in the nucleus. | T | or | F |
| 3. Electrons are the largest particles in an atom. | T | or | F |
| 4. A branch of chemistry is named after oxygen. | T | or | F |
| 5. Heat is a form of matter. | T | or | F |
| 6. Neutrons are negatively charged. | T | or | F |
| 7. A quark is a small particle that makes up protons & neutrons. | T | or | F |
| 8. The atomic number tells you the number of electrons in the nucleus of an atom. | T | or | F |
| 9. Energy is anything that has mass & takes up space. | T | or | F |
| 10. Protons & electrons make up most of the mass of an atom. | T | or | F |

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Vocabulary

atom	electron	element	matter	molecule	neutron	nucleus	proton	quark
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Use the word bank above to fill in the blanks.

1. Anything that has mass and takes up space is matter.
2. A positively charged particle in an atom is the proton.
3. A(n) molecule is the smallest unit of a chemical compound that retains the properties of the compound.
4. A(n) element is matter that is composed of only one kind of atom.
5. A negatively charged particle in an atom is the electron.
6. A(n) atom is the smallest particle of an element that retains the properties of that element; the building blocks of matter.
7. A particle with no charge that is found in an atom is the neutron.
8. An elementary particle that makes up protons & neutrons is a(n) quark.
9. The nucleus is the core of the atom, made up of protons & neutrons.

Knew/New

Write down 3 things you already knew about chemical reactions that were confirmed through watching the video:

1. **Answers will vary.**
- 2.
- 3.

Write down 3 new things that you learned from watching the video:

1. **Answers will vary.**
- 2.
- 3.

Episode Guide

1. What does the Greek word for atoms mean? "uncuttable"
2. The heavy particles of an atom are located nucleus.
3. Atoms are mostly made up of empty space.
4. Protons & neutrons are located in the nucleus of an atom.
5. Where are the electrons found? outside of the nucleus
6. Atoms are so small that you could fit how many on the head of a pin? 1 million
7. What makes 1 atom different from another? the number of protons in the nucleus
8. What does the atomic number tell you about an element? the number of protons in the nucleus
9. Anything that is not matter is a form of energy.
10. What element is found in every living thing? carbon

True or False

1. Atoms are mostly empty space. T or F
2. Each element has a specific number of protons in the nucleus. T or F
3. Electrons are the largest particles in an atom. T or F
4. A branch of chemistry is named after oxygen. T or F
5. Heat is a form of matter. T or F
6. Neutrons are negatively charged. T or F
7. A quark is a small particle that makes up protons & neutrons. T or F
8. The atomic number tells you the number of electrons in the nucleus of an atom. T or F
9. Energy is anything that has mass & takes up space. T or F
10. Protons & electrons make up most of the mass of an atom. T or F