

Matter vs. Energy: What Is the Difference?

READ ALOUD PASSAGE

Scientists sort almost everything in the universe into two big groups: matter and energy. Matter is anything that has weight and takes up space. Rocks, water, air, and your body are all matter. Energy is what makes matter move and change, but energy itself does not have weight and does not take up space.

Heat is a form of energy, not matter. Even though you can feel heat, it has no weight and takes up no space. Light is a form of energy too. Light has no weight and does not occupy space. Sound is energy that travels through matter, but sound itself is not matter.

This can be tricky. Fire looks like matter because it flickers and moves, but the heat and light it gives off are energy being released as a fuel burns. The smoke, ash, and hot gases from a fire are matter. The heat and light are energy. Understanding the difference between matter and energy helps us make sense of many things. A battery is made of matter, and it stores chemical energy. The electricity that flows through a wire is energy moving through matter. The two concepts, matter and energy, work together to explain much of what we observe.

Activity 1: Word Builder

Answer each question with your own words.

1. List four nouns you could sort into matter and energy.

1. _____

2. _____

3. _____

4. _____

2. Fire flickers. List three verbs that tell how fire moves.

1. _____

2. _____

3. _____

4. _____

Activity 2: Sentence Scramble

These words are mixed up. Put them in order to make a sentence. Start with a capital letter and end with a period.

1. energy / is / light / of / form / a / too

Activity 3: Four Kinds of Sentences

Write four different kinds of sentences. Use the word in bold in each one.

(matter) Statement:

(energy) Question:

(heat) Exclamation:

Activity 4: Write the Topic Sentence

Read the details. Write one topic sentence that tells what all of them are about.

DETAILS

- rocks, water, air: matter
- heat and light: energy
- smoke and ash: matter
- battery: matter that stores energy

Your topic sentence:

Activity 5: Sentence Scramble

These words are mixed up. Put them in order to make a sentence. Start with a capital letter and end with a period.

1. and / weight / occupy / not / space / no / light / has / does
-
-
-

2. this / tricky / can / be
-
-
-