



Test Ninjas

VOCABULARY STUDY SERIES

ACT VOCABULARY

ACT Science Vocabulary: Chemistry & Matter

20 focused words in Chemistry & Matter

20

UNIQUE WORDS

1

CATEGORIES

ACT

EXAM FOCUS



About this study guide

This vocabulary guide was prepared and published by Test Ninjas as an independent study resource. It is designed to help students build the precise word knowledge needed for demanding academic reading and reasoning.

How to use this guide

Study in short, repeated sessions. Read each definition, say the word aloud, and use the example to understand how the word functions in context. Return to unfamiliar words until you can explain them without looking at the definition.

Copyright and permitted use

© 2026 Test Ninjas. All rights reserved. A lawful purchaser may print this document for personal study or for students in one class directly taught by that purchaser. Redistribution, resale, public posting, dataset extraction, and use for training or evaluating automated systems are prohibited without written permission.

Independent publication. SAT, ACT, GRE, GMAT, and LSAT are trademarks of their respective owners. Their owners are not affiliated with, and do not endorse, Test Ninjas.

001 amalgamate *verb*

CHEMISTRY & MATTER

to combine or unite to form one structure or organization.

The university will **amalgamate** three small departments into one interdisciplinary research center, making the advanced word understandable through its consequences and surrounding details.

MEMORY CUE: Amalgamate separate pieces by melting them into one unified structure.

002 amorphous *adjective*

CHEMISTRY & MATTER

Without a clearly defined shape or form; vague and unorganized

The committee's goals remained **amorphous**, lacking any concrete plan of action.

MEMORY CUE: An amorphous blob has no clearly defined shape.

003 brine *noun*

CHEMISTRY & MATTER

Water saturated or strongly impregnated with salt

Life in the deep ocean **brine** pools has adapted to salinity levels that would kill most organisms.

MEMORY CUE: Brine is water so saturated with salt that crystals nearly form.

004 catalyst *noun*

CHEMISTRY & MATTER

A person or thing that precipitates an event or change

The economic downturn served as a **catalyst** for sweeping regulatory reform.

MEMORY CUE: A catalyst is the spark that starts change without becoming the final product.

005 coalesce *verb*

CHEMISTRY & MATTER

To come together and form one mass or whole; to unite

Several grassroots movements **coalesced** into a single powerful political party.

MEMORY CUE: Separate droplets coalesce into one larger pool.

006 condense *verb*

CHEMISTRY & MATTER

to make something more compact or concentrated; to shorten or compress.

Editors had to **condense** the lengthy report into a concise summary for the public meeting.

MEMORY CUE: Condense a long message by compressing it into a smaller, concentrated form.

007 distilled *adjective***CHEMISTRY & MATTER**

Purified by the process of evaporation and condensation

The author **distilled** decades of research into a slim volume accessible to any educated reader.

MEMORY CUE: Distilled liquid emerges purified after evaporation and condensation.

008 flotation *noun***CHEMISTRY & MATTER**

The action of floating on or in a liquid; an experiment testing buoyancy

The engineers tested the raft's **flotation** capacity before allowing passengers aboard for the river crossing.

MEMORY CUE: Flotation tests whether an object can stay floating on liquid.

009 inert *adjective***CHEMISTRY & MATTER**

Lacking the power to move or act; having no effect

Noble gases are chemically **inert**, rarely reacting with other elements under normal conditions.

MEMORY CUE: An inert object remains still because it lacks the strength to move.

010 pigment *noun***CHEMISTRY & MATTER**

A substance used for coloring; the natural coloring matter of animal or plant tissue

The ancient Egyptians extracted blue **pigment** from lapis lazuli, a stone so rare it was valued more highly than gold.

MEMORY CUE: Pigment supplies the coloring matter in paint, skin, leaves, or fabric.

011 sulfur compounds *noun phrase***CHEMISTRY & MATTER**

Chemical substances containing sulfur combined with other elements

Volcanic emissions rich in **sulfur compounds** can lower global temperatures by reflecting sunlight back into space.

MEMORY CUE: Sulfur compounds join sulfur atoms chemically with other elements.

012 valence *noun (used in testing/psychology sense)***CHEMISTRY & MATTER**

The positive or negative quality/direction of something (e.g., positive valence = positive meaning)

The survey measured the emotional **valence** of participants' responses, distinguishing positive reactions from negative ones.

MEMORY CUE: Valence gives an idea its positive or negative emotional charge.

013 compound *adjective*

CHEMISTRY & MATTER

made up of multiple parts; to make something worse

The **compound** interest on the loan added up quickly, giving observers a clearer basis for judging its extent or relation to the larger whole.

MEMORY CUE: A compound joins multiple blocks; as a verb, it adds another block to make a problem worse.

014 react *verb*

CHEMISTRY & MATTER

to respond or behave in a particular way in response to something

How did your parents **react** when you told them the news, setting in motion a chain of events that changed what happened afterward.

MEMORY CUE: A reaction arrow springs out immediately after a trigger presses the button.

015 component *adjective / noun*

CHEMISTRY & MATTER

A constituent part; one of the individual parts that make up a larger whole

Trust is a critical **component** of any successful negotiation between parties with a history of conflict.

MEMORY CUE: A component is one piece fitted into a larger working whole.

016 atom *noun*

CHEMISTRY & MATTER

The smallest unit of an element that retains that element's chemical identity.

Each carbon **atom** contains six protons, although different carbon isotopes contain different numbers of neutrons.

MEMORY CUE: An atom is one tiny identity card for an element, defined by its proton count.

017 molecule *noun*

CHEMISTRY & MATTER

A group of two or more atoms held together by chemical bonds.

One water **molecule** contains two hydrogen atoms bonded together with a single oxygen atom.

MEMORY CUE: A molecule is an atom team whose members are fastened together by chemical bonds.

018 solution *noun*

CHEMISTRY & MATTER

A uniform mixture in which one or more substances are dissolved in another substance.

The clear salt **solution** remained uniform because dissolved ions were distributed throughout the water.

MEMORY CUE: In a solution, dissolved particles spread so evenly that every sample has the same composition.

019 solute *noun***CHEMISTRY & MATTER**

The substance that becomes dissolved when a solution forms.

Sugar was the **solute** because it dissolved completely in the larger quantity of warm water.

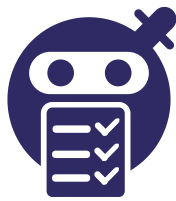
MEMORY CUE: The solute is the smaller substance sent into solution to be dissolved.

020 solvent *noun***CHEMISTRY & MATTER**

The substance that dissolves a solute and usually makes up most of a solution.

Water served as the **solvent**, surrounding and separating the ions from the added salt crystals.

MEMORY CUE: The solvent solves the mixing job by dissolving the solute within it.



ACT VOCABULARY

Keep building your edge.

Vocabulary grows through repeated exposure and deliberate use.
Revisit this list, write with the words, and practice recognizing their
meaning in context.

More focused practice at test-ninjas.com