Count nouns are those that name things that occur in discrete units (they’re quantized!)

Examples: problem, particle, occurrence, sample, capacitor, collision, calculation, analysis

Count nouns can be modified by a number (one atom, 50 000 collisions per ms, 24 sensors, a dozen apples)

Count nouns may be singular or plural

Singular count nouns can take an indefinite article (a or an)

Count nouns may be modified by a quantifier (e.g., every, each, several, many, few)
**Mass nouns are those that name things that are treated as undifferentiated units**

Examples: flour, water, equipment, evidence, knowledge, research, jargon, physics, damage, information, work, advice, progress, stuff

*Mass nouns are indivisible; they are almost always* expressed as a **singular** in English and take a **singular verb**

Although they are treated as singular, mass nouns cannot take an indefinite article (*a* or *an*)

Mass nouns cannot be modified by most **quantifiers** (e.g., *many, few, several, each*)

Some mass nouns (those that can be weighed or measured) can be modified by a number if a unit of measure is specified (2 kg of flour, 3 ml of water)

*It’s English—there are always exceptions*

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**A mass noun is a grammatical construct**

Whether a noun is a mass noun has nothing to do with the inherent qualities of the object or objects to which the noun refers

*What nouns describe this photo?*

*car, truck, SUV, motorcycle, highway, road, lane, median, traffic, transportation*

A good review: [https://www.thoughtco.com/mass-nouns-or-noncount-nouns-1692801](https://www.thoughtco.com/mass-nouns-or-noncount-nouns-1692801)
Dividing a mass noun into its constituent parts requires adding another word or using a completely different word*

clothing → article of clothing
equipment → piece of equipment
pollution → pollutant
literature → article, monograph, book, poem
text → letters, words, phrase, sentence, page, chapter
research → experiment, project, study, investigation, calculation, analysis

*note that the words for the parts are count nouns

Common mistake—making mass nouns plural (which changes the meaning)
damage (mass) = physical harm that impairs an object’s value, usefulness, or normal function
damages (mass) = a sum of money claimed or awarded by a court to compensate a victim for a loss or injury
text (mass) = the collection of words on a page or screen
texts (count) = individual books or manuscripts (think textbooks)
work (mass) = activity involving mental or physical effort
works (count) = individual products of human (usually artistic) endeavor—think works of art—OR an industrial complex or engineering structure (steelworks) OR an internal mechanism (the works of a watch)
Common mistake—using the wrong modifier

“Suppressing epidemics with a limited amount of immunization units”

*units* are counted; should be *number*

“Quantum, classical, and total amount of correlations in a quantum state”

*correlations* are counted; should be *number*

“Nonlinear optics with less than one photon”

*photons* are counted; should be *fewer than*

(all titles from PRL articles, <sigh>)

Use the correct modifier!

<table>
<thead>
<tr>
<th><strong>Mass Nouns</strong></th>
<th><strong>Count Nouns</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>no indefinite articles (<em>a</em> or <em>an</em>)</td>
<td>can take any article</td>
</tr>
<tr>
<td>more than</td>
<td>more than</td>
</tr>
<tr>
<td>less than (weighed or measured)</td>
<td>fewer than (counted)</td>
</tr>
<tr>
<td>amount of (weighed or measured)</td>
<td>number of (counted)</td>
</tr>
<tr>
<td>as much as (weighed or measured)</td>
<td>as many as (counted)</td>
</tr>
</tbody>
</table>

Writing “The Raman studies showed the effects of varying excitation energies on the type and *amount of defects in graphene*” is not strictly wrong, and people will understand what you mean, but it sounds witless. *Defects* are counted, not weighed or measured.
Some words may be used as both mass and count nouns, but their meanings are different

**chicken** (count noun—animal)

**chicken** (mass noun—foodstuff)

A *collective* noun refers to a collection of things taken as a whole

*Examples:* audience, committee, faculty, ensemble, class, team, array, group, bunch

Most collective nouns are treated as singular in US English and take singular verbs and singular pronouns

*The committee nominates the club’s officers.*
*The committee tabled its discussion of the budget.*

If the members of a group are not acting in unison, plural verbs and pronouns might be used

*The committee are fighting among themselves.*
*The committee adjourned to stretch their legs.*

Collective nouns can be mass (*audience*) or count (*team*)