Count nouns are those that name things that occur in discrete units

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 be combined with an indefinite article (*a* or *an*)

Mass nouns cannot be modified by *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

*car, truck, SUV, motorcycle, freeway, lane* (count nouns)

*traffic* (mass noun)

*transportation* (mass noun)

*rush hour* (mass noun)
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
- 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)

audience (collective) = the group of people attending a performance
audiences (count) = different and distinct population groups
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>Mass Nouns</th>
<th>Count Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>no indefinite articles (a or an)</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

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*)