Words/sentences

Use words sparingly, accurately, specifically, and comprehensibly

Aim for conciseness and clarity
Verb strength (even “dead” verbs!)

Empty nouns
Redundancy
Wordiness
Word length
Positive v. negative form
Accuracy in word choice
Accessible vocabulary
Slang and jargon
Sparingly

• Conciseness is a key goal of scientific writing. Reduce the number of words in your writing by strengthening verbs, using the active voice, and avoiding gratuitous wordiness and redundancy.
Strong v. weak verbs

There may exist a relationship between the use of post-menopausal estrogen and breast cancer.

Breast cancer may be related to the use of post-menopausal estrogen.
Strong v. weak verbs

They will do the screening of the candidates and make a decision about the list of those to be interviewed.

They will screen the candidates and decide who should be interviewed.
<table>
<thead>
<tr>
<th>Weak</th>
<th>Strong</th>
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<tr>
<td>do</td>
<td>celebrate</td>
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<td>make</td>
<td>contrast</td>
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<td>be</td>
<td>preclude</td>
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<td>get</td>
<td>avoid</td>
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<td>exist</td>
<td>worship</td>
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<td>put</td>
<td>infiltrate</td>
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<td>go</td>
<td>traverse</td>
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<td>have</td>
<td>undergo</td>
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<td>Slightly stronger</td>
<td>Strong</td>
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<td>work</td>
<td>prefer</td>
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<td>want</td>
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<td>look</td>
<td>explore</td>
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<td>see</td>
<td>calculate</td>
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</table>
Empty Nouns

do an analysis of
become a part of
take an interest in
make changes in
put fuel in
conduct an investigation
participate in fraud of

also watch for “nourcing of verbs” or nouns ending in: –tion, -ment, -ance, -ence
Strong v. weak verbs

Larry Johnson was resistant to reanalyzing the data.

Larry Johnson resisted reanalyzing the data.
Strong v. weak verbs

There is another videotape that shows a wombat taking care of its young.

Another videotape shows a wombat caring for its young.
There is opposition among voters to nuclear power plants near population centers because of a widespread belief in their threat to human health.

Voters oppose nuclear power plants near population centers because they believe such plants threaten human health.
The problem was the topic of our discussion.

We discussed the problem.
Redundancy

I am now employed by the National Institutes of Health, working as a lab technician.

I am now employed by the National Institutes of Health as a lab technician.

I am now a lab technician at the National Institutes of Health.
Redundancy

The town of Sheridan, located in Wyoming, is a center for horse breeding in the state.

The town of Sheridan, Wyoming, is a center for horse breeding in the state.

Sheridan is a center for horse breeding in Wyoming.
Redundancy

We found that adult males gained weight from 1994 to 1995. Adult females also gained weight from 1994 to 1995. In addition, juveniles gained weight over the same period.

All three cohorts (adult males, adult females, and juveniles) gained weight from 1994 to 1995.
Redundancy

I would like to become a physician, because I have an interest in human welfare. I think it would be interesting to be a doctor, because I could help reduce human suffering. When I finish medical school, I want to work in a developing country or inner city.

(rewrite)
Gratuitous wordiness

in the event that \hspace{5.5cm} if
along the lines of \hspace{5.5cm} like
at the present time \hspace{5.5cm} now
because of the fact that \hspace{5.5cm} because
due to the fact that \hspace{5.5cm} because
in order to \hspace{5.5cm} to
in spite of the fact that \hspace{5.5cm} although
until such time as \hspace{5.5cm} until
Gratuitous wordiness

It is imperative that the test tubes be sterilized by autoclaving.

The test tubes must be sterilized by autoclaving.
It was not long before he was sorry about what he had said.

He soon regretted his words.
Gratuitous wordiness

The forest in the area that we were studying was characterized by a large number and variety of plant species, including some that none of us had ever seen before on any of our previous trips.

The forest in our study area had many plants of many kinds, some of which none of us had ever seen.
Word length

- approximately
- utilize
- numerous
- endeavor
- component
- lengthy
- abbreviated
- automobile

- about
- use
- many
- try
- part
- long
- short
- car
Positive v. negative form

He was not very often on time.

He was usually late.

She did not think that the study of plant physiology was a good use of time.

She thought the study of plant physiology was a waste of time.
Active v. passive voice

Recognizing passive voice:

1. The performer of the action is not the subject of the sentence and may not be present at all (unless present as the object of the preposition “by”)
2. Main verb is past tense ending in “ed”
3. Always has a “to be” helping verb
Active v. passive voice

Passive voice – leaves the actor unspecified

It was done.

Active voice – states the actor as the subject

I did it.
Active v. passive voice

Data were gathered during 1996 in the Bighorn Mountains.

I gathered data during 1996 in the Bighorn Mountains.
Active v. passive voice

At dawn, the howling of a wolf could be heard.

We heard the howling of a wolf at dawn.
Accuracy

1. Words as defined in the dictionary
2. Near the beginning of definition
3. Dictionaries
4. Specificity
5. Homonyms and spell-checkers.
Slang

The estimate of 36 m was dead on.
The estimate of 36 m was exactly correct.
Of the sample of trout, 5% were lunkers.
Of the sample of trout, 5% weighed over 3 kg.