

HOW TO PERFORM A SMOG READABILITY TEST¹

To calculate the SMOG reading grade level, begin with the entire written work that is being assessed, and follow these four steps:

1. Count off 10 consecutive sentences near the beginning, in the middle, and near the end of the text.
2. From this sample of 30 sentences, circle all of the words containing three or more syllables (polysyllabic), including repetitions of the same word, and total the number of words circled.
3. Estimate the square root of the total number of polysyllabic words counted. This is done by finding the nearest perfect square, and taking its square root.
4. Finally, add a constant of 3 to the square root. This number gives the SMOG grade, or the reading grade level that a person must have reached if he or she is to fully understand the text being assessed.

Additional Guidelines

- A sentence is defined as a string of words punctuated with period (.), an exclamation point (!), or a question mark (?).
- Hyphenated words are considered as one word.
- Numbers which are written out should also be considered, and if in numeric form in the text, they should be pronounced to determine if they are polysyllabic.
- Proper nouns, if polysyllabic, should be counted too.
- Abbreviations should be read as unabbreviated to determine if they are polysyllabic.

To test a text that has fewer than 30 sentences:

- Count all of the polysyllabic words in the text.
- Count the number of sentences.
- Find the average number of polysyllabic words per sentence as follows:

$$\text{Average} = \frac{\text{Total number of words}}{\text{Total number of sentences}}$$

- Multiply that average by the number of sentence short of 30.

¹Developed by Harold C. McGraw, Office of Educational Research, Baltimore County Schools, Towson, Maryland.

- Add that figure on to the total number of polysyllabic words.
- Find the square root and add the constant of 3.

A Short Cut

The conversion table below makes a SMOG grading test even easier. Simply count the number of polysyllabic words in your chain of 30 sentences and lock up the approximate grade level on the chart.

SMOG Conversion Table

<i>Total Polysyllabic Word Count</i>	<i>Approximate Grade Level (+ 1.5 Grades)</i>
0-2	4
3-6	5
7-12	6
13-20	7
21-30	8
31-42	9
43-56	10
57-72	11
73-90	12
91-110	13
111-132	14
133-156	15
157-182	16
183-210	17
211-240	18

Sample material

CANCER: WHAT TO KNOW WHAT TO DO ABOUT IT

Beginning

Half of all cancers start in parts of the body that could be examined easily by a doctor during an ordinary office visit. Even considering the recent advancements of medical research, the best weapon against cancer still is early diagnosis followed by prompt treatment by a qualified physician. You may believe that cancer is an altogether hopeless disease. Medical science has proved otherwise. Early diagnosis and adequate treatment usually improve the outlook for a person with cancer. Do not hesitate to ask your doctor about suspicious signs. If you develop cancer, prompt treatment can save your life.

Each of the billions of cells that make up your body has a special job--skin cells give protection, red blood cells carry oxygen, bone cells build the skeleton. These cells multiply rapidly during childhood, but after you reach maturity they divide and reproduce

themselves only to replace worn out tissues or to repair wounds. Cancer cells seem to be runaway cells that multiply rapidly and without purpose.

Middle

If your symptom lasts longer than 2 weeks, go to your doctor to find out if it means cancer. Don't wait for symptoms to become painful. Pain is not an early sign of cancer. Science knows three ways to arrest and, in some instances, cure cancer:

1. Surgery removes cancer growths and nearby tissue that may contain cancer cells.
2. Radiation from X-rays and radioactive elements destroys cancer cells.
3. Chemotherapy, or treatment with drugs, sometimes completely, though temporarily, relieves symptoms and shrinks tumors when other types of treatment are of no benefit.

Research on combinations of these three methods is going on continuously in an effort to increase the effectiveness of treatment. Safer, more effective surgery, improved radiation techniques and better use of drugs constantly improve the outlook for cancer patients. Useless treatments by diets or other means, seriously endanger the lives of cancer patients. Modern surgery, radiation and drug treatment, singly or in combination, are effective against different types of cancer.

End

Decrease the quantity of smoked and fatty foods in your diet. Avoid excess caloric intake. You can support the efforts of doctors and others in community cancer programs in guarding against such health hazards as pollution. The National Cancer Institute of the National Institutes of Health has played a major role in U.S. cancer research since the Institute was founded in 1937. An expanded national cancer program began with the passage of the National Cancer Act of 1971. To carry out the terms of this act, and with funds appropriated annually by the Congress, the National Cancer Institute conducts research in university medical centers and many other non-Federal institutions. The Institute also coordinates the cancer research programs of Federal and private institutions in accordance with a constantly updated National Cancer Plan, which encompasses the lines of research effort considered to be most important. Through the cancer program authorized by the National Cancer Act of 1971, the Institute ensures widespread application of research results. Major achievements cannot be expected overnight. Those who are at the forefront of the struggle to overcome cancer count on the continuing commitment of every American to achieve our common goal -- the prevention and cure of cancer.