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| 5.2 | Appropriate levels of communication |
| **Briefing sheet** |

In this activity you will examine texts using the Gunning Fog index (GF index) to measure ‘readability’ for an audience.

**Part 1 What makes you choose a particular book / magazine to read?**

Would you be looking for the same qualities when choosing to read science-based material?

**Extract 1**

Scintillate, scintillate globule aurific -

Fain would I fathom thy nature specific

Loftily perched in the ether capacious Strongly resembling a gem carbonaceous.

Have a look at the following two extracts. Place a cross on the scales given below, to show your assessment for the extract. Use a different colour for each extract. Give reasons for your answers.

**Extract 2**

A research team proceeded toward the apex of a natural geologic protuberance, the purpose of their expedition being the procurement of a sample of fluid hydride of oxygen in a large vessel, the exact size of which was unspecified. One member of the team precipitantly descended, sustaining severe fractural damage to the upper cranial portion of his anatomical structure. Subsequently, the second member of the team performed a self-rotational translation oriented in the direction taken by the first member.

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Easy to understand

Difficult to understand

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Expecting too much prior science knowledge

Not expecting too much prior science knowledge

Enjoyable to read

Boring to read

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Expecting a high level of general vocabulary

Not expecting a high level of general vocabulary

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Expecting a high level of science vocabulary

Not expecting a high level of science vocabulary

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| 5.2 | Appropriate levels of communication |
| **Briefing sheet** |

What nursery rhyme does each extract refer to?

Extract 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Extract 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Have a look at the three pieces of scientific text supplied and work out the GF index. The GF index is an equation you can use to find out how many years of formal education someone needs to be able to understand your writing. The lower the number, the younger the audience could be and therefore the largest audience you could have.

To do this, you need to:

**1** Randomly select about 100 words of text.

**2** Find out the average sentence length by dividing the total number of words by the number of sentences.

**3** In the same section, count all the words that have more than three syllables.

**4** Then find the percentage of complex words by dividing the number of complex words (found in stage 3 above) by the total number of words in your chosen section and multiply by 100.

**5** Add together the average sentence length and percentage of complex words.

**6** Multiply your answer by 0.4.

GF index = 0.4 x ([average sentence length] + [percentage of complex words])

Now that you have worked out the GF index for all three texts, what can you say about each of them?

Text 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Text 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Text 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Rewrite one of the passages using language that you consider is simpler and clearer. Recalculate the GF index for the passage. Discuss your original and edited passage with your group. Is it always a good thing to use the simplest possible language?

Find a piece of your own scientific writing. What is your GF index? How does it compare with the three texts above?

**Part 2**

In pairs, discuss the following:

**1** Is it important to write in a way that all people can understand?

**2** What makes a piece of writing interesting, apart from the actual subject content?

**3** Do scientists have a responsibility to make themselves understood

• by the general public?

• by other scientists?

**4** Do you feel you need to improve your writing style? If so, why? How will you do this?