

L452

Write Tiny Letters

ミクロの文字を書いてみよう

■ Purpose of Exhibition

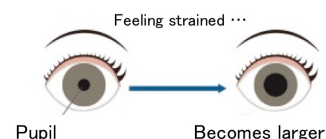
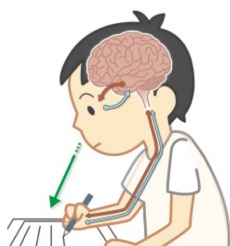
Press the button, and place the experiment sheet under the microscope. The questions written on the sheet in extremely small letters appear magnified on the screen.

Here, you can experience reading, as well as writing, letters that are too small to the naked eye, with the use of a microscope.

The display of magnified letters enables you to make minute movements while checking and adjusting your writing.



■ Additional Knowledge



We can express simple information with written words in a very short time. When we do this, many different parts of the body are functioning well in coordination with one another.

For example, to take a written test, you have to be able to not only read the questions and come up with answers, but also adjust your grip of a pen to trace lines to form the letters of the words you wish to write, while checking if the lines are long enough, drawn in the right direction, and so on and forth, and repeating such movements one after another.

The simple act of writing a word becomes very complex if you close your eyes or use your non-dominant hand. You can now see that it is not such a simple act at all. You can also see that the human body is very well designed and works extremely exquisitely.

When the human body does something, the corresponding part of the brain is working.

[What happens to my body when I'm feeling strained?]

Didn't you feel strained when you were trying to write down the answers within the time limit? Perhaps not, since you are having a great time at the Nagoya City Science Museum! But you must have had the experience

of feeling strained or nervous before, like when you are taking an important examination.

When you are feeling strained, the pupils in your eyes become larger, and digestion by your digestive organs slows down. Your heart beats faster, and the blood vessels contract, raising the blood pressure. Perspiration also occurs. These changes are caused by the sympathetic nerve of the autonomous nervous system, as well as hormones that are released into the blood stream from endocrine glands in different parts of the body.

When you are feeling relaxed, for example during a break after a meal, the hormones released under stress decrease, or other hormones are released. The parasympathetic nerve of the autonomous nerve system becomes active. Your body is now in a very different state.

Article by Tomoko Horiuchi, curator