

## Suggestions to Teachers (Liebig and nutrition)

### Expected results

After the lesson, the students are expected to:

1. Write a short text about the way of the production of the Liebig's meat extract, by their research in the web.
2. Based on the web research, demonstrate the category of food affects the muscular or medal efficiency of human.
3. Calculate the time of exercise concerning the combustion of certain quantity of fat in the human organism for his different activities.
4. Based on the web research, locate the factors in the development of the plants, based on the Liebig's law of the minimum.
5. Write a text in which to explain the meaning of the Liebig's law of the minimum.
6. Based on the web research, demonstrate the role of the fertilizers, which are quoted by Liebig.
7. Based on the web research, demonstrate the benefits and the harms from the use of the fertilizers.
8. Write the characteristics of science and the ways it develops in the Liebig's based on the narration as well the lesson activities, according to the McComas's list.

### About the activities of students

The proposed students' activities are indicative and they aim at the accomplishment of the above expected outcomes. Moreover, the teacher may choose some of them for the teaching process in relation to its aims, the needs of students and the available time. Finally, she/he can create her/his own activities.

About the emergence of the characteristics of science in the narration, these characteristics are quoted in the website, comprehensively (in classification of the stories by NOS).

About the locating of the characteristics of Nature of Science in the proposed activities, indicatively, we can quote the following:

A) The activity 2 concerns the characteristics of Nature of Science: a) "Science demands and relies on empirical evidence", b) "Scientific knowledge is tentative but durable" and c) "Science has a subjective element"

B) The activity 4 concerns the characteristics of Nature of Science: "Science demands and relies on empirical evidence" and b) "Scientific knowledge is tentative but durable".

C) The activity 5 concerns the characteristic of Nature of Science: "Scientific knowledge is tentative but durable".

D) The activities 6 and 7 concern the characteristics of Nature of Science: “Science demands and relies on empirical evidence” and “Science and technology impact each other, but they are not the same”.

E) The activity 8 concerns the characteristics of Nature of Science, which are quoted in the activities: 2, 4, 6, 7 and the next activity.

G) The activity 9 concerns the characteristic of Nature of Science: “Science demands and relies on empirical evidence”.

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