

Further Information

Experiences

The teaching unit was carried out with students aged 14 – 16. Overall, one can say, that the topic “nutrition circle” can be recommended for the cross-curricular teaching of mathematics and biology. The concept motivated the students to discuss nutrition beyond the classroom in the breaks. Designing an optimal nutrition plan required a form of thinking that linked percentage calculation, the production of pie charts and dietary recommendations.

It has to be noted, though, that the girls in particular did not want to reveal their eating habits in the initial homework task and had no data ready for the first lesson. The teacher should be prepared to react to this in his/her respective preparation and through skilful group formation in the first unit. A comparison of the nutrition plans between students, however, led to exciting discussions. The students worked out by themselves that, in spite of a higher percentage value, a lower total percentage can be achieved, as the basic value is the decisive factor. The low achievers in a class may need a short impulse, when it comes to the conversion of the percentages in a pie chart (full circle 360°).

It is interesting to note that, among German students, their own nutrition circle deviates considerably from the one recommended by the DGE. There often is a particularly large section of the circle of about 75% that is taken up by carbohydrates among girls and by meat among boys.



The **ScienceMath** project: **Nutrition circle and pie charts**
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Literature

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