Experimenting, problem solving and reasoning in mathematics

Are you interested in mathematics? Do you enjoy tasks where you do not have to calculate numbers right away but first think about the task carefully, look at the problem from different angles and ponder a little longer? You do not just believe what you are told, but want to understand why something is supposed to be like that? This course gives you the chance to discover mathematics yourself, try out tips and strategies for solving mathematical problems and find out how scientists work.

The "Mathe für Cracks" course is aimed at elementary school and lower middle school pupils (grades 3 to 5). Using questions from geometry, combinatorics, logic and number theory, the characteristics of mathematics will be developed in workshops. There is also a varied supporting program structuring the course (including a mini-lecture, games and a riddle).

The aim of the course is to familiarize students with approaches and strategies for experimenting, problem-solving and reasoning. In addition, we want to generally encourage their interest in areas of mathematics that play a subordinate role in everyday mathematics lessons in school.

Registration until 04 May 2025

Required documents: A current declaration of consent (Einverständniserklärung) and a letter of recommendation from the teacher (Empfehlungsschreiben) in the subject of mathematics.

Registration is made by the parents via e-mail to:

✉ MathefuerCracks@tu-dresden.de

Additional information

You can find contact details on the following website:

🔗 https://tu-dresden.de/gsw/ew/iew/gspm

Cooperations

In cooperation with the German Society for the Highly Gifted Child (Deutsche Gesellschaft für das hochbegabte Kind (DGhK)) and the Erlebnisland Mathematik, the Chair of Primary School Education/Mathematics at the Technical University of Dresden is offering a winter course in December/January and a summer course in May/June, which is intended to give mathematically interested and high-achieving children the opportunity to learn new content in order to nurture interest in mathematics, train flexibility in thinking and develop strategies.

The support program is to be understood as an enrichment offer in which non-curricular content is addressed. The remedial course is co-designed by elementary school student teachers of the Technical University of Dresden. This allows them to gain their first experience with mathematically interested and high-achieving children. The workshop and the children's participation provide the university students with a practical learning environment.

Riddle competition: In the Safari Park

Freya, Carla, Marian, and Nathan visit a safari park together and decide to count the animals. Freya counts all the ostriches and zebras and finds a total of 12 animals. Carla counts the ostriches and lions and determines that there are 22 animals. Marian counts the zebras and lions and gets a total of 24 animals. Finally, Nathan counts all the ostriches, zebras, and lions together.

Question: How many animals does Nathan count in total?

Bring your solution with you by **24 May 2025**. The answer will be revealed in our mini-lecture and prizes will be raffled off.

Chair of Primary School Education/ Mathematics

Course leader:
Sebastian Schorcht

Course dates:
17 May 2025
24 May 2025
Each date from 10.00 until 14.30 o'clock

Course location:
Room WEB 136
Weberplatz 5
01217 Dresden

Contact:
Clarissa Köhler (Organisation)
☎ +49 351 463 327 24
Office hours:
Mo, 13.00 – 15.00 and Thu, 9.00 – 11.00
✉ MathefuerCracks@tu-dresden.de

Image sources:
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Barrier-free communication:
The digital version of the flyer is available via the following internet address or QR code:

https://tu-dresden.de/gsw/ew/iew/gspm

Deutsche Gesellschaft für das hochbegabte Kind e.V.

Member of the network of:

DRESDEN concept

Mathe für Cracks

Course for mathematically interested 3rd to 5th grade students

TECHNISCHE UNIVERSITÄT DRESDEN