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 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 30 November 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

Please note: The number of participants is limited due to room and staffing constraints.

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: An Age Puzzle

Two mothers meet for dinner and talk about their children. One mother poses a little riddle to the other: “My three children, Tim, Emma, and Sophie, are 62 years old combined. Tim is 4 years older than Emma, and in two years Sophie will be twice as old as Emma is right now.”

Question: How old is Sophie right now?

Bring your **solution** with you **by 17 January 2026**. The answer will be revealed on the last date of the course and prizes will be raffled off.

Chair of Primary School Education/ Mathematics

Course leader:
Julian Kriegel

Course dates:
13 December 2025
17 January 2026
Each date from 10.00 until 14.30 o’clock

Course location:
Hörsaalzentrum (HSZ, Auditorium Center)
TU Dresden
Bergstraße 64, 01069 Dresden

Contact:
Justine Silla & Clarissa Köhler (Organisation)
☎ +49 351 463 327 24
Office hours: Mo, 9.00 – 16.00 o’clock
✉ MathefuerCracks@tu-dresden.de

Image sources:
TU Dresden – Panthermedia – Pixabay

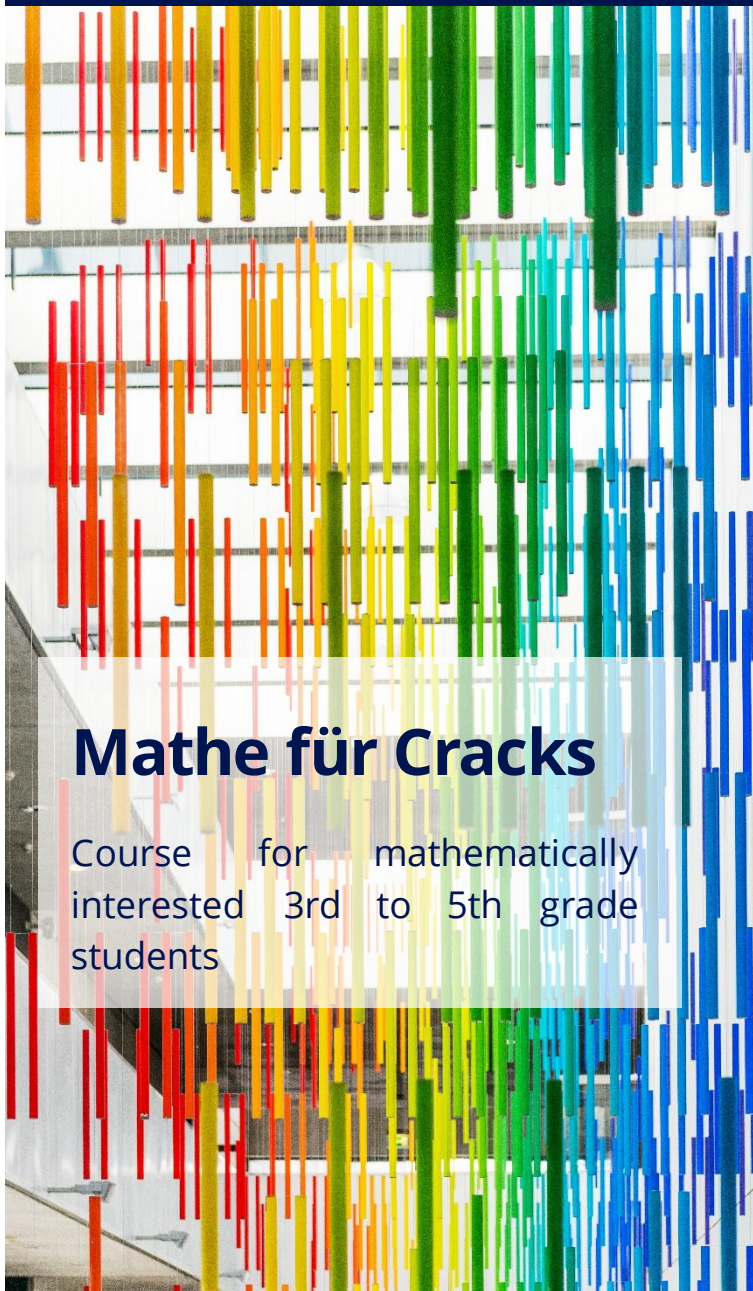
Barrier-free communication:
The digital version of the flyer is available via the following internet address or QR code:

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

Deutsche Gesellschaft für das hochbegabte Kind e.V.

Member of the network of: DRESDEN concept

Dresden University of Technology



Mathe für Cracks

Course for mathematically interested 3rd to 5th grade students