

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 24 May 2026

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

Klara goes to an ice cream shop with her family. There are five different flavors of ice cream (mango, strawberry, chocolate, vanilla, and apple). She wants to order a sundae with three scoops of ice cream.

The rules are:

- Each scoop must be a different flavor
- The order of the scoops in the sundae doesn't matter

Question: How many different ways can Klara put together her sundae?



Bring your **solution** with you **by 13 June 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:

Clarissa Köhler

Course dates:

06 June 2026

13 June 2026

Each date from 10.00 until 14.30 o'clock

Course location:

MS1 – building at the TU Dresden
Münchner Straße 1, 01187 Dresden

Contact:

Justine Silla (Organisation)

☎ +49 351 463 327 24

Office hours: Mo, 12.00 – 18.00 o'clock

✉ MathefuerCracks@tu-dresden.de

Image sources:

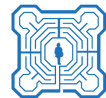
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Barrier-free communication:

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:



Mathe für Cracks

Course for mathematically interested 3rd to 5th grade students