

MATH-PHYSICS-ELECTIVE

Basic information:

- 2 hours per week in 9th and 10th grade;
- Choice in 9th and 10th possible;
- Curriculum: Physics in Math & Math in Physics;
- Tools: CAS (Computer Algebra System; TI-nspire), Vernier, GeoGebra;
- Language: Englisch and/or German.

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MATH	PHYSICS
<p>Graphs & Curves / Graphen & Kurven</p> <ul style="list-style-type: none">- parabolas / Parabeln- polynomial functions / Polynomfunktionen- trigonometric functions- parametric functions (2D; 3D) (Calculus II)- polar functions	<p>Motion / Bewegungen</p> <ul style="list-style-type: none">- uniform & accelerated motion / Bewegungen- position vs. time graphs / s-t-Diagramme- oscillation / Schwingungen- ...- circular motion / Kreisbewegung
<p>Proofs / Beweise</p> <ul style="list-style-type: none">- pigeonhole principle / Schubfachprinzip- Reductio ad absurdum- mathematical induction / vollständige Induktion	<p>Empirical research</p> <ul style="list-style-type: none">- Models (Mousetrap cars, ...)- Experiments (TI-nspire, Vernier, GeoGebra)
<p>Numbers / Zahlen:</p> <ul style="list-style-type: none">- prime numbers / Primzahlen- sequences and series / Zahlenfolgen und Reihen (Calculus II)- complexe numbers / komplexe Zahlen	<p>Elementary particles / Elementarteilchen</p>

MATH

A CURVE!



<https://www.geogebra.org/m/yjam7x6r>

PHYSICS

A CURVE?

