

Career Spotlight

High-School Math Teacher

High-school math teachers teach students subject like geometry, statistics, algebra and calculus. Daily tasks include planning lessons, creating sample problems, giving assignments, and writing tests. Most math teachers follow a state or district curriculum and use a textbook. In addition to teaching in the classroom, math teachers help students during office hours or before or after school. Teaching in a high school can be strenuous, but teaching is also cited as one of the most fulfilling careers.



EDUCATION

Math teachers begin their careers by earning a bachelor's degree in math and completing a teacher preparation program. Some aspiring math teachers also earn a master's degree in math or education. Coursework includes upper-level math classes and teaching-methods classes. Before graduating, students must work in a high school math classroom under the supervision of a math teacher.

WHEN MATH IS USED

High-school teachers use math to demonstrate sample problems in class, create assignments for students, and write and grade tests.

POTENTIAL EMPLOYERS

After completing a degree, math teachers will be qualified to teach in any secondary school. In the United States, Arizona, Hawaii, and Montana have the highest concentration of math teachers (employment per thousand workers), while New York, Illinois, and Alaska are the top-paying states for math teachers.

FACTS

High school teachers typically do the following:

- Plan lessons in the subjects they teach, such as biology or history
- Assess students to evaluate their abilities, strengths, and weaknesses
- Teach students as an entire class or in small groups
- Grade students' assignments to monitor progress
- Communicate with parents about students' progress
- Work with individual students to challenge them, to improve their abilities, and to work on their weaknesses
- Prepare students for standardized tests required by the state
- Develop and enforce classroom rules
- Supervise students outside of the classroom—for example, at lunchtime or during detention

CITATIONS

<http://www.bls.gov/oes/2009/may/oes252031.htm#nat>

<http://www.bls.gov/ooh/education-training-and-library/high-school-teachers.htm#tab-2>

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MATH REQUIRED

- Calculus I and II
- Linear Algebra
- Calculus of Several Variables
- Ordinary Differential Equations
- Theory of Analysis
- Abstract Algebra
- Statistics

Recommended:

- Graph Theory
- Combinatorics
- Number Theory

Low-end Salary: \$34,600/yr

Median Salary: \$52,200/yr

High-end Salary: \$82,000/yr