

In Mr. Fischer's classroom, math equals magic

By Rob Schneider
The Indianapolis Star



TERRE HAUTE, Ind. — With his balding head and glasses perched on the end of his nose, Robert Fischer appears unassuming to the untrained eye. But to legions of middle school students, he is part showman, part inspirational speaker and part conjurer, weaving the magic of mathematics in a room where there are no wrong answers and students share classroom space with posters of Einstein and an inflatable shark.

His Honey Creek Middle School classroom is a place where learning and enjoyment go hand in

is why he shows up for work at 5:30 a.m. to get ready to host a morning math session, where 35 to 50 children — even those not in his classes — work on math before the 8:10 first bell.

It's why he offers math sessions during lunch hour as well, enticing students to forgo cafeteria food to chew on tricky equations.

All-USA Teacher Team: An occasional look at teachers selected to represent all outstanding teachers. More information: www.usatoday.com/life/academic/intro.htm

hand. "If you make it fun, show you care, they will grow," he philosophizes.

That philosophy

It's why students are convinced he sleeps at the school, why parents relocate so their children can attend Honey Creek.

And it's why this 32-year educator, who has coached national championship math and chess teams, was named to USA TODAY's All-USA Teacher First Team.

Step inside his classroom and Fischer's magic is evident. A sign by the door reads: "Math is not about numbers or the right answer. Math is about discovery and exploring different ways of thinking."

And explore they do.

Like a trail guide helping a hiker remember how to read a compass, Fischer looks for things to praise. Instead of saying an answer is incorrect, he'll point out the steps done correctly before a student veered off in the wrong direction.

When a student responds to a question with, "I don't have a clue," Fischer replies, "That's a fair answer." He tells a student, "I like your idea," then adds: "It won't work." Keep trying and thinking is the unspoken message.

When Fischer asks who got a problem wrong, a number of students raise their hands, hoping to explain their mistakes.

It's what Fischer wants to see, because the more open students are to learning, the better they will



By Shawn Spence for USA TODAY

Robert Fischer: Indiana teacher turns math into an adventure.

do. As a placard on the wall attests, "Just because something is difficult doesn't mean you shouldn't try. It means you should try harder."

Fischer, who grew up in Tell City,

Ind., and gained an appreciation for math while working in his father's shoe store, says his goal is for students to think for themselves, "to plan ahead and be able to explain, defend and also question and listen to somebody else's answer."

"Those are the tools that will help you become successful later on," he says. And though his own successes have kept him at the middle school level in Terre Haute for his entire career, he wouldn't have it any other way.

"You can make changes and you can affect them more at this level," he says. "They're starting to venture out and say, 'Wait a minute, I like this, I don't like that.' You can instill a love of a particular subject area because they are ready."

And as one class leaves and another enters, that readiness is about to be tested. "Two words," Fischer tells students. "Get busy."



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All-USA First Teacher Team

Henry Brown III

Hallandale Adult Alternative High School,
Hallandale Beach, Fla.

- Math, personal development (now traveling as Florida Teacher of the Year)
- Years teaching: 9
- Nominated by: Linda Lopez, principal

All-USA Teacher Team

- Teachers don't go by the book
- First team
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Once considered "at risk," now inspires troubled teens who've been unsuccessful at traditional schools. . . . Uses newspaper coupons in a makeshift store, projects such as designing a garden or building a shed, to teach real-world math skills to students, many of whom start with third- or fourth-grade math skills. . . . Helped boost standardized test scores by 40%. . . . A fitting advertisement for what he preaches to students: "Your Attitude Determines Your Altitude." . . . Students, mostly impoverished and more than 75% minority, have problems from drugs to teen pregnancy to failing grades. . . . "Never see failure as failure. Consider it a learning experience." . . . Created Helping Hands, linking students and senior citizens to foster learning on both sides of the generation gap. . . . Implemented intensive dropout and pregnancy prevention curriculum, expanded to include young men. . . . Always wears a suit. . . . Makes career success seem possible, with business-rep visits and lessons on professional dress and etiquette: "I take them into extensive training to live in the real world." . . . Often separates classes by sex to reduce posturing and encourage honest talk and emotion. . . . Papers his room with inspirational messages: "The most important tool for success is the belief that you can succeed."

Rick Burkhart

North Charleston (S.C.) High

- History, service learning
- Years teaching: 12
- Nominated by: Cassandra Shanklin, former student

Travel-weary salesman turned to teaching to tap his love of history; sees himself as selling history: "The first sale is easy; you want to keep them coming back." . . . Peppers lectures with references to teen movies, TV shows, music: "Teachers who think cartoons are a waste of time are making a mistake." . . . Started service-learning courses in context of civics: as Founding Fathers and Athenians volunteered to create democracies, so, too, can students make a difference. . . . Founded adaptive aquatics, in which North Charleston students provide water therapy to kids with orthopedic handicaps from 13 schools. . . . Introduced adaptive aquatics to school in Ukraine while on teaching fellowship; got bus, equipment donated to send there. . . . "When people tell me something's impossible, that's what gets me started." . . . Finishing coursework for third master's degree. . . . Has students act as mentors at elementary school. . . . Drives students from non-college-going tradition to college interviews and gets application fees waived. . . . Has students enter contests to build confidence; has advised National History Day state winners. . . . Favorite saying: "Eventually, all subjects become history." . . . Says Justin Pugh, 16: "He'll do almost anything to see students succeed."

Robert Fischer

Honey Creek Middle School, Terre Haute, Ind.

- Math, grades 6-8



- Years teaching: 33
- Nominated by: Donna McLeish and Holly Pies, colleagues,

Called the "Pied Piper of mathematics," he runs a fear-free classroom where students are as eager to explain why they didn't get a problem right as to offer a correct answer. "I stress to kids there is never a wrong answer in this room. You explain what your thinking is, and we'll talk about it." . . . Has coached Mathcounts teams to 17 straight state and one national championship; chess teams have won 21 state and four national titles. . . . Inspired students' families to move when he changed schools five years ago; remains a selling point for area real estate agents. . . . Grades students on their own progression, not by comparing one to another: "I have a knack for seeing inside a kid, whether he or she is giving me their best effort." . . . Starts his day at 5:30 a.m. and draws 35-50 students for an hour of before-school math; holds Lunch Math through lunch periods; coaches Mathcounts and tennis after school. . . . Inducted into Indiana Tennis Coaches Hall of Fame for coaching 25 undefeated teams and 35 county championships. . . . "Simply put, Bob Fischer is an outstanding teacher, absolutely the best of the best," says deputy superintendent Karen Goeller.

Richard Glueck

Orono (Maine) Middle School

- Science, reading, social studies, grade 6
- Years teaching: 24
- Nominated by: Brook Merrow, colleague

Affirms students' ability to create from within themselves and take responsibility for their own learning. . . . Creates activities that take students beyond national and state standards; classes have engineered and constructed full-scale replicas of Wright and Chanute glider aircraft, Mercury and Gemini spacecraft, a shuttle flight deck and Apollo moon suits. . . . Had 2000 class build a full-sized 1900 Wright glider, later shipped to NASA's Glenn Research Center in Cleveland, to be used in a film and displayed at the National Air Show; his 2001 class painted scale drawings of the nine planets on wooden pallets and placed them along the drive leading to the school for a tour of the solar system. . . . Obtained funding for an amateur-radio station so students could talk to crews on the space shuttle, MIR, International Space Station, and to students in other countries. . . . "Cool!" "Awesome!" "Look!" "I did it!" punctuate conversations of students in small groups testing tops they made from canning jar lids and kebob sticks to learn the physics of gyroscopes. . . . "Success breeds success," he observes. "One gets it and the others try." . . . "You don't become a teacher for wealth or glamour. You become a teacher because it is the most important job on earth."

Rebecca Anne Hill

Natural Bridge Elementary, Natural Bridge Station, Va.

- Sciences, grades 4 and 5 (Now teaching sixth-grade science at Maury River Middle School, Lexington, Va.)
- Years teaching: 20
- Nominated by: Alice Waddell, former principal

Set about bringing inquiry-based science to school when she moved to Virginia five years ago. . . . Reorganized school's science materials into lab kits to meet state Standards of Learning (SOLs). . . . Worked with community master gardeners and students to start 20-by-60-foot organic garden with seven raised beds, pond, compost heap; crops include potatoes, peanuts, tomatoes, colonial herbs. . . . Appointed key leader for county's "Building a Presence for Science" program and won \$31,000 Christa McAuliffe Fellowship to improve science in district; she sent teachers to conferences, supplied materials and mini-grants for inquiry-based science, and started Family Math and Science Night, an evening of activities that demonstrate SOLs. . . . Started "Share Fairs" for teachers to network. . . . Keeps guinea pig, tarantula, python, frogs and salamanders in her room; funded nine aquariums with grants. . . . Following her oft-transferred husband, has taught at nine different schools, at all levels and many different populations; learned something at all of them. . . . "She's extremely dependable, and nothing's beneath her," says former principal Alice Waddell. "She'll take on kids no one else wants to fool with." . . . Started "Mountains to Bay" program, taking students to study water quality and wildlife