

# ***THE SCIENCE TEACHER***

## CONTENIDO

### VOLUME 78 No. 5 SUMMER 2011

#### **FEACTURES ON THE THEME**

- 29      **A Scientific World in a Grain of Sand.**  
Investigating local sand samples on a shoestring budget.  
*Renee Clary and James Wandersee.*
- 34      **Chromonoodles: Jump Into the Gene Pool.**  
Using pool “noodles” to model chromosomes in the biology classroom.  
*Jennifer Farrar and Kelsi Barnhart.*
- 40      **It’s Elemental!**  
Using the Periodic Table Live! To teach students about the elements.  
*Lynn Diener and John W. Moore.*
- 44      **Simulating Science.**  
Manipulative models and small-scale simulations that promote learning of complex biological concepts.  
*Dina Morkowitz and Susan Holt*
- 50      **Hydrogel Beads: The New Slime Lab?**  
An inexpensive inquiry activity on chemical bonding properties, and replacement reactions.  
*Debra Brockway, Matthew Libera, and Heidi Welder.*
- 56      **Summer Reading, Dawn to Dusk.**  
Fill your days with books suggested by NSTA Recommends reviewers.  
*Juliana Texley.*

#### **DEPARTAMENTS**

- 6      **Editor’s Corner**  
Tough Times for Teachers.
- 8      **Safer Science**  
Know Your Responsibility.
- 10     **Science 2.0**  
PD on a Shoestring.
- 12     **The Green Room**  
A Sense of Place

- 14      **The New Teacher's Toolbox.**  
Gearing Up for Summer.
- 16      **Headline Science**  
High Protein Breakfast • Giant Kelp Sikuliaq Science Possibilities •  
Interactive Teaching Methods • New Class of Planets • A Better Mouse  
Model • Virtual Workout Partners • Gene Packaging • Frozen Helium.
- 49      **Call for Papers.**
- 60      **NSTA Conference Registration.**
- 69      **Write for *The Science Teacher*.**
- 70      **Idea Bank.**  
Nature as Learning Tool.
- 74      **Career of the Month.**  
An Interview With Environmental Advocate Shereen Hughes.
- 78      **NSTA Recommends**
- 84      **Index of Advertisers**

## **COVER**

These are tough times for science teachers. The recession has slashed budgets and jobs, and state financial crises jeopardize educational programs, materials funding, and even collective bargaining rights. This issue of *The Science Teacher* is our attempt to address these problems in some small way, by sharing inexpensive activities and methods. Read on for great ideas for even the tightest budget!