

Teacher Professional Development at MIT: LEGO® Atoms and Molecules Workshop

Transform your teaching of abstract chemical concepts (atoms, molecules, chemical reactions and photosynthesis) through hands-on methods using LEGO bricks!

At the end of the workshop, you will receive a set of classroom materials worth \$150 (complete with LEGO bricks, instructional cards, a teacher's guide, and student handouts) and will feel ready to teach these lessons in your own classroom.

Who should attend?

- Middle school science teachers, administrators and curriculum specialists
- Informal science educators

When?

Wednesday, May 12th, 2010
10 AM - 1 PM
(lunch facilities nearby)

Where?

MIT
Edgerton Center
Building 4, Room 402
77 Massachusetts Avenue
Cambridge, MA 02139

Cost:

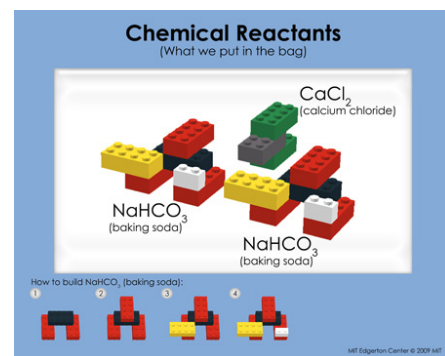
\$50. (Check payable to MIT)
You receive a certificate for 2
PDPs and a classroom set worth
\$150.

To **preview** the lessons online,
and to **register**, visit
[www.mindandhandalliance.org/
educators](http://www.mindandhandalliance.org/educators)



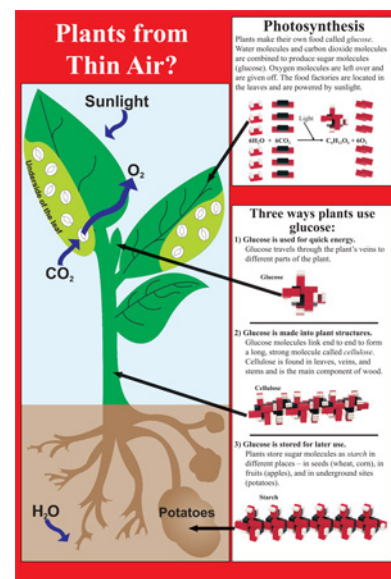
In the Chemical Reactions

lesson students observe a lively chemical reaction in a bag and then model the reactants and products using LEGO bricks as atoms. They learn that chemical reactions produce new products, and can differentiate between: atoms and molecules, compounds and mixtures, and physical and chemical changes.



In the Photosynthesis

lesson students concretely experience the photosynthesis reaction by rearranging the atoms of LEGO carbon dioxide and water to form a glucose molecule. They then make chains of starch and cellulose. The lesson teaches students that most of the mass of a plant actually comes from the air and water, rather than from soil.



"Teachers often explain atoms as the building blocks of matter. LEGO bricks model this concept perfectly and are something kids know how to manipulate. It's an intuitive way for them to grasp the concept. Hands down, I prefer it over the ball and stick models for my classroom." - Ben Ligon, middle school science teacher.

Space is Limited, Register Today!