

The NSTA Learning Center

<http://learningcenter.nsta.org>

A Tool to Develop Science Pre-service Teachers

Al Byers and Flavio Mendez, NSTA

Kate Baird, Indiana University-Purdue University Columbus

Susan Blunck, University of Maryland Baltimore County

Carolyn Mohr, Dominican University

Michael Odell, University of Texas at Tyler

Kathy Sparrow, Florida International University

William Veal, College of Charleston

Association for Science Teacher Education
San Antonio, Texas, January 17, 2014

Agenda

- Introductions
- NLC Highlights
- Using NLC as e-Textbook
- NLC Tools, Resources, and Community
- Panel Discussion
- NLC Exploration
- Survey



Introducing today's presenters:

- Al Byers and Flavio Mendez, NSTA
- Kate Baird, Indiana University-Purdue University Columbus
- Susan Blunck, University of Maryland Baltimore County
- Carolyn Mohr, Dominican University
- Michael Odell, University of Texas at Tyler
- Kathy Sparrow, Florida International University
- William Veal, College of Charleston

Institutions represented (28):

University of Georgia, Texas Tech University, Appalachian State University, University of Wisconsin La Crosse, Bio-Med Science Academy, University of Arizona, University of North Texas, Baylor University, New Jersey City University, University of Portland, Columbia University, University of Illinois at Urbana – Champaign, Utah State University, University of Minnesota, University of Louisville, Winston-Salem State University, Thomas More College, Purdue University, Illinois State University, Willamette University, University of South Florida, Marshall University, University of South Carolina, University of Florida, Saint John's University, University of Missouri, Princess Nora University, and Linköping University.

The **NSTA** Learning Center **Highlights**

<http://learningcenter.nsta.org>

A Critical Piece of the Teacher Learning Solution

- Self-Directed Access
- 11,200+ resources
- Free tools to help teachers diagnose, organize, personalize, and document their learning
- Immediate free access to online advisors and colleagues through chat and discussion
- Badge recognition system

Search Resources and Opportunities
Search the Learning Center

[NSTA Home](#)
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My Learning Center

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Teacher Learning Journeys: Learn Today...Your Way

[SEARCH COMMUNITY](#)

Create your personalized learning journey based on your own unique learning needs and preferences where you can plan, track, and assess your progress over time. You can start at "Explore Learning Resources and Opportunities" below or by creating your game plan with the PD Plan and Portfolio tool. You may also review an [archived Web Seminar overview](#) of the Learning Center.

Explore Learning Resources and Opportunities

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[See all FREE Resources](#)

By Subject

[Earth & Space Science](#)
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[Physical Science](#)

By Grade Level

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[High School](#)
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By State Standards

Select your state to begin:
 Choose a state

Do-It-Yourself Learning

Learn at your own pace online with these 1-2 or 6-10 hour interactive activities.

[SEE ALL DIY LEARNING RESOURCES](#)

Live Online Seminars & Classes

Learn online from certified instructors with your colleagues. 1-2 hour seminars, week and month long courses are available. Earn state and university credit.

[SEE ALL ONLINE EVENTS](#)

Books, Articles & Websites

[Books](#)
[Book Chapters](#)
[eBooks](#)

In Person Experiences

Attend an NSTA workshop in person to learn hands-on techniques with other teachers. Earn state and university credit.

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Hours of Operation

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Most Popular Resources

Emailed

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- Coral Reef Ecosystems
- Cell Structure and Function: Cells – The Basis of Life
- Plate Tectonics: Layered Earth
- The NSTA Reader's Guide to <i>A Framework for K–12 Sci...

[More Popular Resources](#)

<http://learningcenter.nsta.org>

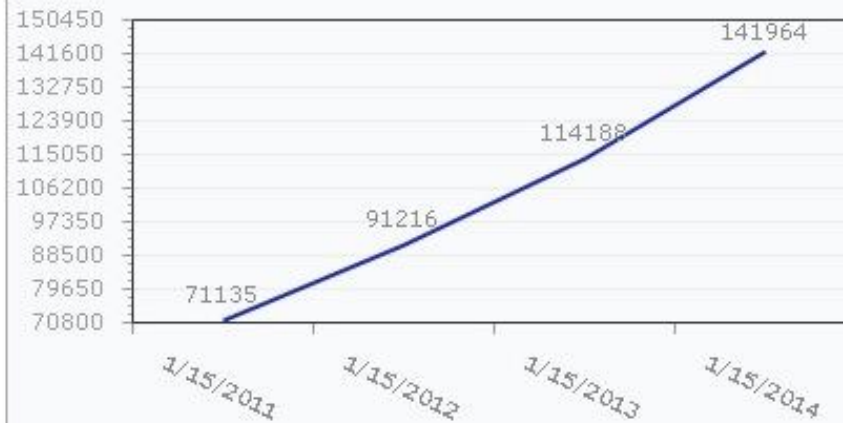
Stats as of

Show the Previous: Years

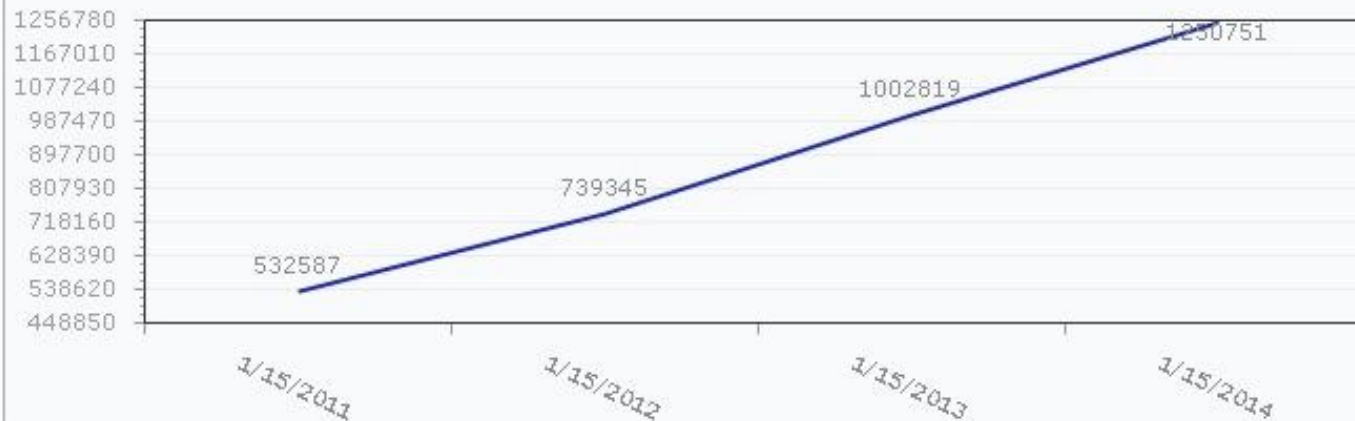
141,964 Active Users*



Active User Growth

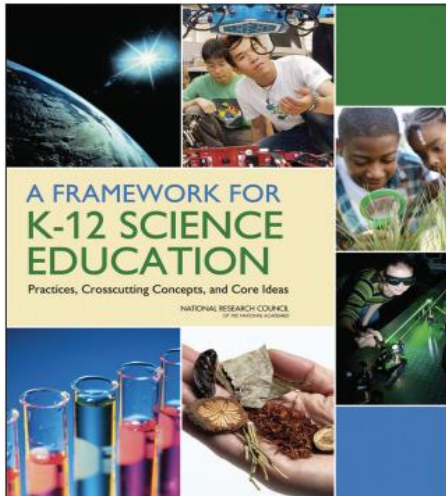


1,250,751 Resources in Libraries



*Active Users are those with at least one current product in their Library.

The Framework and Next Generation Science Standards have a New Vision of Science Learning that Leads to a New Vision of Teaching



Intertwine three dimensions



- Scientific and Engineering Practices
- Disciplinary Core Ideas
- Cross-cutting Concepts

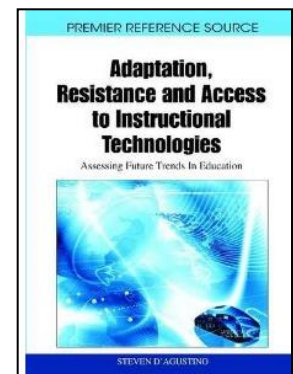
Teacher Learning and Self-Efficacy

- **Quasi-experimental Design Study:** Across 3 districts finding *significant gains in teacher content knowledge using single SciPack*. (2008). n=45, teachers in grades 5-8
- **Experimental Design Study:** Pretest-posttest delayed-treatment/control group design with random assignment finds *significant gains in teacher content knowledge, teacher self-efficacy, and students' gain scores for grades 5-8 in treatment group across two SciPacks*. (2009-2010), n = 56
- **Descriptive Study:** Dissertation research finds *significant gains in teacher learning* for pre-posttest and pretest-final assessment. (2010). n = 85, teachers grades 3-6 from 11 different states.
- **NASA Blended PD Evaluation Study.** Incorporated SciPacks, Online Communities, Badges, Leader Boards, and Online Courses across 13 districts. *Significant gains in teacher learning and self-efficacy* (2010-2012) n = 300.

See: <http://learningcenter.nsta.org/research/>

Peer-Reviewed Journals, Proceedings, and Books

- The Role of On-line Communities of Practice in Promoting Sociotechnical Capital Among Science Teachers. American Educational Research Association, Annual Conference (2014).
- First steps towards a social learning analytics for online communities of practice for educators. International Learning Analytics and Knowledge Conference (2012).
- Simple and Computational Heuristics for Forum Management in the NSTA Learning Center: A Role for Learning Analytics in Online Communities of Practice Supporting Teacher Learning. International Conference on System Sciences (2012).
- Digital Resources to Support Science Instruction, Expert Panel, National Association for Research in Science Teaching, National Conference Symposium (2012).
- Social Network Analysis of Affiliation Networks to Promote Online Communities of Practice for Science Education, International Network for Social Network Analysis, Social Networks Conference (2012).
- Developing a web-based mechanism for assessing teacher science content knowledge. Journal of Science Teacher Education 22(3): 273-289, (2011).
- Improving Educator Effectiveness—Teachers as Co-learners. State Educational Technology Directors Association Leadership Summit: Leverage Technology for Learning (2011).
- Evaluation of online, on-demand science professional development material involving two different implementation models. Journal of Science Education and Technology 17(1): 19-31, (2008).



What if you could...

- Select existing collections of interactive digital resources to create an engaging suite of content wrapped in an integrated learning community for sharing and discourse with badges, points, and leader boards to engage your students' learning?
- Track your students' learning via pre/post assessments tightly coupled to the science content and their professional learning community activities?

IHEs using the NSTA Learning Center as e-Textbook with science pre-service teachers

Brenau University	Oregon State University Cascades
Central Connecticut State University	Plymouth State University
College of Charleston	Saint Mary's College at Notre Dame
Dominican University	Shippensburg University
Elizabethtown College	Southern Illinois University Carbondale
Florida International University	University of Central Missouri
Fort Hays State University	University of Delaware
Idaho State University	University of Maryland Baltimore County
Indiana University-Purdue University Columbus	University of Montana
Indiana University South Bend	University of Regina
Kent State University	University of South Carolina Aiken
Mercer University	University of Texas at Tyler
Midwestern State University	University of Wisconsin Oshkosh
Minnesota State University Moorhead	Virginia Commonwealth University
Montana State University Billings	Virginia Tech
Northern Arizona University	Western New Mexico University Gallup
Northeastern Illinois University	Wright State University



Dr. Susan M. Blunck

University of Maryland, Baltimore County

- Teaching Science Content & Methods to Pre-Service Teachers
- 15-20 students per semester

One way I use the NSTA Learning Center as my class e-Textbook is...



Dr. Michael Odell

The University of Texas at Tyler

- Science Methods/PBI
- 25-40 students per semester

One way I use the NSTA Learning Center as my class e-Textbook is...



Dr. Kathy Sparrow

Florida International University

- Teaching Science Content & Methods to Pre-Service Teachers
- 2 classes @ 25 students each per semester

One way I use the NSTA Learning Center as my class e-Textbook is...



Carolyn Mohr

Dominican University

- Intro to Teaching Elementary Science
- Science Processes and Concepts for K-8 Teachers
- 2 classes @ 10-15 students per semester

One way I use the NSTA Learning Center as my class e-Textbook is...

COLLEGE of CHARLESTON

Dr. William Veal

College of Charleston

- Elementary and Middle School Science Methods
- 2 classes @ 30-40 students per semester

One way I use the NSTA Learning Center as my class e-Textbook is...



Dr. Kate Baird

Indiana University-Purdue University Columbus

- Natural and Social Science Methods
- 15-24 students per semester

One way I use the NSTA Learning Center as my class e-Textbook is...

Student e-mail to professor!

Just wanted to say a HUGE thank you for using the NSTA subscription as a text for our course this semester....I could not agree with a better way to use my textbook money than to subscribe to a great resource like this...also I think this will be one of the most resourceful tools I will use in my future teaching career. Just wanted to acknowledge the awesomeness of this helpful tool.

S. Middleton,
Indiana University South Bend




The NSTA Learning Center as e-Textbook

<http://learningcenter.nsta.org/group/etextbook.aspx>

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- Florida International University
- Idaho State University
- Indiana University-Purdue University Columbus
- Mercer University, GA
- Montana State University Billings
- Nova Southeastern University, FL
- Plymouth State University, NH
- Southern Illinois University Carbondale
- The University of Texas at Tyler
- University of Maryland Baltimore County
- Western New Mexico University Gallup

:: e-Textbooks that Engage Preservice Teachers

The Learning Center is Your e-Textbook

Create a truly integrated and blended learning experience for your students with a customized interactive e-textbook leveraging the NSTA Learning Center!


What if you could select from existing collections of interactive web modules, simulations, lesson activities, e-chapters, and video podcasts to create an engaging suite of content that is wrapped in an integrated community for sharing, rating, and discourse with badges, points and leader boards to engage your students' learning? What if you could track your students' learning via pre/post assessments tightly coupled to the science content? Now you can. [Create your e-Textbook today.](#)

With the NLC as your e-Textbook, you and your students will be able to:

- Access over 10,000 interactive digital learning resources
- Deepen your knowledge through rich discussions coupled to selected pedagogical and subject matter content
- Motivate and affirm your students' learning with points, badges, and class-specific leader boards that capture online student engagement and learning

As the class professor, you will be able to:

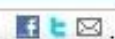
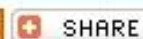
- Track your students' activities via the instructor's dashboard
- Customize your class landing page



Create
e-Textbook

UMBC

Across the past three years, UMBC elementary science pre-service teachers, in my graduate and undergraduate elementary science methods courses, have been taking advantage of the learning opportunities provided in the Learning Center. I look forward to extending the experiences this year by having my students set professional development learning goals and provide evidences and reflections to include in their PD Plan and Portfolio. I encourage other university science educators to get their students involved in Learning Center activities. Our pre-service teachers deserve the opportunity to experience NSTA's innovative, high-quality, online professional development learning experiences as these



:: E-learning Resources for Preservice Teachers

[Log Out](#)

Step 1: Details

2: Personalize

3: NSTA Collections

4: Your Collections

5: Assessments

6: Confirmation

Begin creating your course by filling out the following form. If you would like to give access to your Administrator site to other individuals, please enter their e-mail addresses below.

State:

Maryland

Institution:

University of Maryland Baltimore Coun

Number of Users:

18

Professor:

Flavio Mendez

Course:

Methods for Teaching Science Elementary Students

Emails of Additional Admins:

Separate emails with semi-colons (;)



SAVE AND GO TO STEP 2

How may we improve this process? [Please tell us what you think.](#)

[Step 1: Details](#)
[2: Personalize](#)
[3: NSTA Collections](#)
[4: Your Collections](#)
[5: Assessments](#)
[6: Confirmation](#)

This step is optional

An NSTA collection is a "bundle" of Learning Center resources. URLs of external websites may also be part of an NSTA collection.

Adding an NSTA collection of resources can save your students time and may provide focus to your course. Choose one or more of the NSTA collections below to pre-populate your students' Learning Center libraries. From their "My Resource Collections," students can easily add the resources to their personal libraries.



Note: Finalize your selections of NSTA collections BEFORE your students register for the course. Any changes made to your collection selections after your students register will not be reflected on your students' accounts.

☐ [Gravity and Orbits: Middle Collection](#)

A collection of resources for middle school teachers on the topic of gravity and orbits.

12 Items ★★★★★

[View all 12 items in this collection](#)

☐ [Gravity and Orbits: High Collection](#)

A collection of resources for high school teachers on the topic of gravity and orbits.

10 Items ★★★★★

[View all 10 items in this collection](#)

☐ [The Solar System: Elementary Collection](#)

A collection of resources for elementary school teachers on the topic of the solar system.

12 Items Not yet reviewed

[View all 12 items in this collection](#)

☐ [The Solar System: Middle Collection](#)

A collection of resources for middle school teachers on the topic of the solar system.

15 Items Not yet reviewed

[View all 15 items in this collection](#)

[SAVE AND GO TO STEP 4](#)

How may we improve this process? [Please tell us what you think.](#)

Visit the UMBC Homepage

Search the Learning Center

EDUC 421/623
sp13 Home

My PD Tools

Subjects

Learning Resources
& Opportunities

Community
Forums

Education
Administrator

Help

My Learning Center

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Welcome

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Profile

My
Library

My
PD Indexer

My PD Plan
and Portfolio

My PD Record
and Certificates

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My Community
Forums

My Help
Desk

Teacher Learning Journeys: Learn Today...Your Way

Use these learning resources and community to design your own long-term growth plan, collaborate with others, and document your growth!

Susan, you've already earned **1175 Activity Points!**

You've recently earned:



ES Indexer Ultimotor

[Complete All Earth/Space Indexerss](#)

You're close to earning:



Onyx Commenter

[Post 4 more comment/questions](#)

[UPDATE YOUR PROFILE](#)

[CHECK THE LEADER BOARDS](#)

Activity Progress Bar

Your Activity Matters!

It
donates
Water!



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[Hours of Operation](#)



[This Week's
Highest Rated Collections](#)



[Force](#)
Shared by:
[Audrey Margrave](#)

Welcome Spring 2013 Students!

Last class we enjoyed learning about the different objects in the solar system through the students' alien inventions - very informative. It was also fun to learn about the Sun through song from the [Astrocappella](#) group.

Register for this web seminar, April 18: [Properties of Living Things: Searching for Fingerprints of Life on Mars](#).

Class stats to date:

Students' average score (77%) in solar system post-assessment vs. (66%) in pre-assessment. Good job!

- Activity points: 15,540
- Number of posts: 39
- Number of reviews: 16
- SciPacks completed: 7
- Collections shared: 37
- Resources added to library: 727



The NSTA Learning Center

Visit NSTA.org



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The NSTA Learning Center for Preservice Teachers

Thousands of interactive resources and useful tools are at your fingertips when you use the NSTA Learning Center. As a preservice teacher, you can access these resources, store them in a personal library, and return to them as needed throughout your career. You can also choose to upload your own files or notes to your library, making a secure and available collection of resources that suit your personal and professional needs. Your professor may have created a collection of specific resources for your course and placed those in your library in the Learning Center, under the tab labeled: "My Resource Collections."



From the dropdown menu below select your state, institution, professor, and course. Your subscription to the e-learning resources will be added to your cart for purchase. The fee is \$99 for your subscription. Please pay with your credit card to access your personal resources in your library.

State:

Institution:

Professor:

Course:

On-going support for you and your students:

- NLC Overview:
Two private orientation web seminars for students (and professors!) about the NSTA Learning Center:
 - ❖ January 23, 7:15 pm Eastern
 - ❖ February 4, 7:15 pm Eastern
- Online advisors and content mentors:
Navigation assistance, finding resources, learning how to use the tools; answer SciPack content questions
- Help desk:
Technical assistance

The **NSTA** Learning Center

Instructor Dashboard

Accountability system for professors; collect data on usage by individual, manage the content on your class landing page, analyze pre/post test scores and other activity data.

[Overview](#)
[Individual Users](#)
[SciPack Summary](#)
[Manage Content](#)
[Calendar](#)
[Portfolios](#)
[Email List](#)

Overview

Number of Licenses Purchased:

50

Number of Licenses Used:

45

% Used:

90%

Total Products Added by Type

Product Type:

Number Added:

Journal Article

261

SciPack

127

Science Object

83

Book Chapter

59

SciGuide

41

Podcast

8

Web Seminar Archive

6

585 Total

Individual Users

Click on a users name to see all of the resources they've added to their library via the subscription.

- [Export Pre/Post-Test Results \(sorted by SciPack\)](#)
- [View overall activity for this group](#)

User	Date Registered	# of Resources via Subscription	Last Active	Activity Points
Teacher name	02/03/2013 1:42 PM	33	03/25/2013 5:43 PM	1345
Teacher name	09/24/2011 9:58 PM	56	04/02/2013 7:55 PM	1165
Teacher name	02/06/2013 1:50 PM	24	04/01/2013 9:00 PM	1270
	01/31/2013 9:13 PM	0	02/04/2013 1:14 PM	0
	02/11/2013 10:09 PM	24	03/14/2013 7:53 PM	1210
	03/05/2013 9:10 AM	163	04/02/2013 4:08 PM	2610
	02/01/2013 1:04 PM	106	04/01/2013 9:03 PM	2265
	01/31/2013 2:02 PM	237	04/01/2013 11:56 AM	3490
	01/31/2013 7:57 PM	67	04/02/2013 7:36 PM	1780
	02/06/2013 3:53 PM	41	03/27/2013 11:23 AM	1115

SciPack Access History

4/2/2013

Teacher name

Page	Access Date
Solar System Final Assessment	Thu Mar 14, 2013 10:34 AM
Jovian Anomalies	Wed Mar 13, 2013 12:53 PM
Terrestrial Anomalies	Wed Mar 13, 2013 12:53 PM
Differentiation	Wed Mar 13, 2013 12:51 PM
The Gaseous Beginning	Wed Mar 13, 2013 12:51 PM
Quiz	Wed Mar 13, 2013 11:51 AM
Summary	Wed Mar 13, 2013 11:51 AM
Looking Through New Eyes	Wed Mar 13, 2013 11:51 AM
Probing the Solar System	Wed Mar 13, 2013 11:50 AM
Seeing into the Sky	Wed Mar 13, 2013 11:50 AM
Telescopes: The Power of Technology	Wed Mar 13, 2013 11:49 AM
Subsequent Theories	Wed Mar 13, 2013 11:49 AM
Retrograde Motion as Evidence	Wed Mar 13, 2013 11:48 AM
Size and Distance	Wed Mar 13, 2013 11:47 AM
Measuring Positions of Earth, the Moon, and the Sun	Wed Mar 13, 2013 11:47 AM
View from Earth	Wed Mar 13, 2013 11:47 AM
Earth Among the Planets	Wed Mar 13, 2013 11:47 AM
A Closer Look at Asteroids	Wed Mar 13, 2013 10:25 AM
Quiz	Wed Mar 13, 2013 10:21 AM
Summary	Wed Mar 13, 2013 10:21 AM
Looking Through New Eyes	Wed Mar 13, 2013 10:21 AM
Search for New Bodies	Wed Mar 13, 2013 10:21 AM

SciPack Progress Report

4/2/2013

Teacher name

SciPack	Complete
Flow of Matter and Energy in Ecosystems	0%
Does Matter Matter?	0%
Carbon, Carbon Everywhere	0%
Nothing Matters Without Energy	0%
Learning Outcomes	0%
Pedagogical Implications	0%
Flow of Matter and Energy in Ecosystems Final Assessment Attempts: 0	
Solar System	100%
Earth in Space	100%
A Look at the Planets	100%
Asteroids, Comets, and Meteorites	100%
Formation of our	100%
Learning Outcomes	100%
Pedagogical Implications	100%
Solar System Final Assessment Attempts: 3	
Failed Tue Mar 12, 2013 3:12 PM Score: 61.54%	
Failed Wed Mar 13, 2013 10:00 AM Score: 61.54%	
Passed Thu Mar 14, 2013 10:49 AM Score: 88.46%	

Pre/Post Test Results

Test	Date Completed	Results	Score
Solar System Pre-Assessment	2/27/2013 6:01 PM	12/20	60%
Solar System Post-Assessment	3/12/2013 10:42 AM	17/20	85%
Earth and Space Science Indexer	3/3/2013 9:02 AM	26/40	65%
Life Science Indexer	3/3/2013 10:01 AM	33/50	66%
Physical Science Indexer	3/3/2013 10:34 AM	22/30	73%

:: Activity

Overall Group Activity

9/1/2012 to 12/31/2012

75255 Total Points

1134 Add NSTA Resource
 88 Create Collection
 42 Complete Indexer
 0 Add Event
 1 Add Personal Resource
 33 Attend Web Seminar
 42 Complete SciPack
 43 Write Review
 10 Recommend Resource
 62 Post comment/question
 66 Share Collection
 33 Publicize Collection
 20 Create Portfolio
 390 Create Portfolio Goal
 298 Upload Evidence
 163 Complete Reflection
 39 Generate Report

:: Activity

Activity for Teacher name

9/1/2012 to 12/31/2012

3955 Total Points

69 Add NSTA Resource
 1 Create Collection
 1 Complete Indexer
 0 Add Event
 0 Add Personal Resource
 4 Attend Web Seminar
 3 Complete SciPack
 1 Write Review
 0 Recommend Resource
 3 Post comment/question
 2 Share Collection
 2 Publicize Collection
 1 Create Portfolio
 16 Create Portfolio Goal
 18 Upload Evidence
 9 Complete Reflection
 1 Generate Report

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Tools, Resources, and Community

<http://learningcenter.nsta.org>



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Teacher Learning Journeys: Learn Today...Your Way

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Create your personalized learning journey based on your own unique learning needs and preferences where you can plan, track, and assess your progress over time. You can start at "Explore Learning Resources and Opportunities" below or by creating your game plan with the PD Plan and Portfolio tool. You may also review an [archived Web Seminar overview](#) of the Learning Center.

:: Explore Learning Resources and Opportunities

[Advanced Search](#) [See all FREE Lesson Plans](#) [See all FREE Resources](#)

By Subject

- [Earth & Space Science](#)
- [Life Science](#)
- [Physical Science](#)

By Grade Level

- [Elementary](#)
- [Middle School](#)
- [High School](#)
- [College](#)

By State Standards

Select your state to begin:

Choose a state



Do-It-Yourself Learning

Learn at your own pace online with these 1-2 or 6-10 hour interactive activities.

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Live Online Seminars & Classes

Learn online from certified instructors with your colleagues. 1-2 hour seminars, week and month long courses are available. Earn state and university credit.

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Books, Articles & Websites

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- [Book Chapters](#)
- [eBooks](#)



In Person Experiences

Attend an NSTA workshop in person to learn hands-on techniques with other teachers. Earn state and university credit.



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SCIENCE
STANDARDS

For States, By States

ONLINE SHORT COURSES

Register Today!



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Emailed Viewed

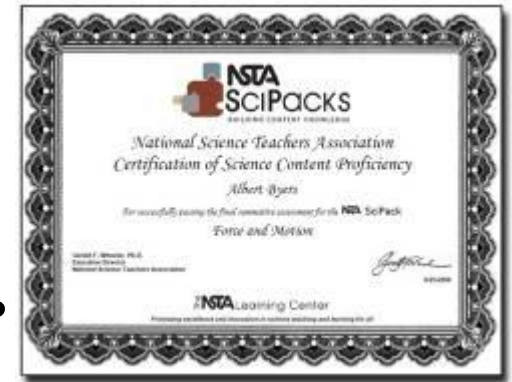
1. Coral Reef Ecosystems
2. Cell Structure and Function: Cells – The Basis of Life
3. Plate Tectonics: Layered Earth
4. The NSTA Reader's Guide to <i>A Framework for K–12 Sci...

[More Popular Resources...](#)



3-5 Science Objects

10-Hour, self-directed, learning experience



Assessment and Certification

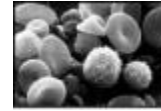
Interactive web modules: SciPacks



**Content Mentor
Email Support**



**Pedagogical
Implications**



Earth and Space	Physical	Life
<ul style="list-style-type: none"> • Earth, Sun, and Moon • Gravity and Orbits • The Solar System • The Universe • Weather and Climate • Rocks • Plate Tectonics • Earth's Changing Surface 	<ul style="list-style-type: none"> • Force and Motion • Energy • Nature of Light • Chemical Reactions • Electric and Magnetic Forces • Atomic Structure • Explaining Matter with Elements, Atoms, and Molecules 	<ul style="list-style-type: none"> • Cell Structure and Function • Coral Reef Ecosystems • Science of Food Safety • Resources and Human Impact • Nutrition • Cell Division and Differentiation • Cells and Chemical Reactions • Flow of Matter and Energy in Ecosystems • Interdependence of Life • Heredity and Variation

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LIVE INTERACTIVE LEARNING @ YOUR DESKTOP

**Learn more about the
NSTA Learning Center!
Join one of our
upcoming Web
Seminars**

Enhance and Extend
Your Professional
Learning with the
Learning Center

January 30, 2014
6:30-8:00 p.m.
Eastern Time



Using the NSTA
Learning Center as
Your e-Textbook with
Pre-service Teachers

February 20, 2014
7:30-9:00 p.m.
Eastern Time

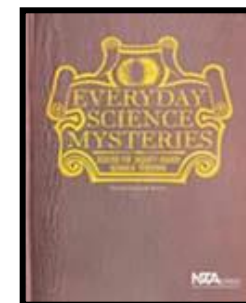
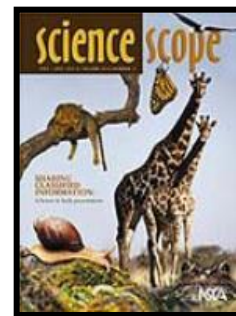
All web seminars are free. Participants receive a free SciPack and a Certificate!

Register for all upcoming web seminars and view more than 500 archives at

<http://learningcenter.nsta.org/webseminars>

What else is available in the NLC?

- All public collections (*Over 4,400*)
- All public community forums (*12*)
- All conference materials (*4,688*)
- Online advisors, Content mentors, Help desk
- Over 11,200 digital resources
 - Journal Articles (*5,894*)
 - e-Book chapters (*Over 2,218*)
 - Science Objects (*94*)
 - SciPacks (*25*)
 - Web Seminar archives & podcasts (*~1,900*)
 - External Resources: NASA, NDEP (55 STEM videos)



My Community Forums

Over 2K Topics; 20K posts

12 Public Forums, including:

- Physical, Life, Earth/space Science
- NGSS
- Evaluation/Assessment
- Research in Science Ed
- Elementary Science
- New Teachers
- Your own Private Forum

The screenshot displays a web forum interface. At the top, the header reads "Community Forums". Below it, a breadcrumb trail shows "Home > General Science and Teaching > The Flipped Classroom". A search bar and a "SEARCH COMMUNITY/PEOPLE" button are present. A status bar indicates "20 people currently online". The main content area shows a post by Kayla Anselmi, dated Sun Dec 04, 2011 3:34 PM, with 79 replies and 1405 views. The post discusses resources for students without internet access and includes two attachments: "Flipped Classroom Parent Letter.pdf" and "Flipped Mastery Rubric Unit 7.doc". To the right of the post is a user profile for Kayla Anselmi, showing 20 posts, 3380 activity points, and a link to her private message. Below the first post is a reply by Sandy Gady, dated Thu Dec 15, 2011 10:40 PM, with 771 posts and 27015 activity points. To the right is her profile. Below that is a post by Pamela Auburn, dated Sat Nov 03, 2012 1:00 PM, with 1679 posts and 54280 activity points. To the right is her profile. At the bottom, there is a section titled "Flipping Your Classroom Collection" with 10 items, including "The Flipped Classroom Infographic", "Flipped Learning", and "Flip Teaching".

Community Forums

Home > General Science and Teaching > The Flipped Classroom

Find Topics and Users SEARCH COMMUNITY/PEOPLE

20 people currently online

POST REPLY WATCH THIS TOPIC MOVE THIS TOPIC

Sun Dec 04, 2011 3:34 PM 79 Replies 1405 Views by Maureen Stover Tue Feb 26, 2013 2:10 PM

by Kayla Anselmi, Thu Dec 08, 2011 1:15 PM

Sandy,

These are two great resources, thank you. The way I plan to deal with students who do not have access to the internet is either by allowing them to download the video files to a flash drive to play on thier computer (without internet) or by giving them a DVD with the videos burned to it so they can play them on their TV. I am also fortunate enough to be at a school that has an open computer lab that students are able to use in the mornings.

Here are two documents that I prepared to provide to parents and students as I begin this flipped model.

Attachments

- Flipped Classroom Parent Letter.pdf (0.06 MB)
- Flipped Mastery Rubric Unit 7.doc (0.05 MB)

EDIT REPORT REMOVE

by Sandy Gady, Thu Dec 15, 2011 10:40 PM

I too like your letter home to parents/guardians. You provide in a very clear and positive way the expectations you have that students will watch the videos at home.

A couple of curiosities. One, how long are the videos the students watch? Did you create them yourself, or are they already on YouTube or some other source? From your rubric, it appears you have a list of expectations for the amount of work your students need to complete. I'm not sure how long the unit you have listed is to last, it appears to be about three weeks. I would love to know more how this works in a real classroom over a period of time and the changes and modifications you would make.

EDIT REPORT REMOVE

by Pamela Auburn, Sat Nov 03, 2012 1:00 PM

I began flipping some of the lessons in my chemistry class when I re-wrote the learning outcomes to emphasize what students should be able to "do" rather than what they should know. This rewrite called to my attention that if the LOs were performance based I would need to structure my lessons around those performance objectives. Yes I know students are supposed to practice with homework at home. Well just as some students do not watch the videos even fewer do homework. So here I chose to fight the battle in what I thought the most effective manner. Practice is critical and guided practice is better than unguided (individual at home practice - more on this later) practice.

Here is a collection of resources on flipped classrooms

Flipping Your Classroom Collection (10 items) Open in New Window

- The Flipped Classroom Infographic -User Uploaded Resource
- Flipped Learning -User Uploaded Resource
- Flip Teaching -User Uploaded Resource



**James
Johnson**

69490 Activity
Points

[Private Message James](#)



NSTA New
Science Teacher
Academy Web
Seminar
Activator

About Me: I am the Grade 6-12 Science Teacher at a private Alternative Education school.

Affiliation: Children's Center for Treatment and Education

Location: Custer City, Pennsylvania

[View Your
Activity Log](#)

Badges Earned:



[Recent Posts](#)

[Recent Public Collections](#)

[Recent Reviews](#)

[Top Advocate](#)

Week of October 21, 2012

[Top Disseminator](#)

Week of November 11, 2012

[Top Advocate](#)

Week of November 11, 2012

[Top Advocate](#)

Week of November 18, 2012

[Top Disseminator](#)

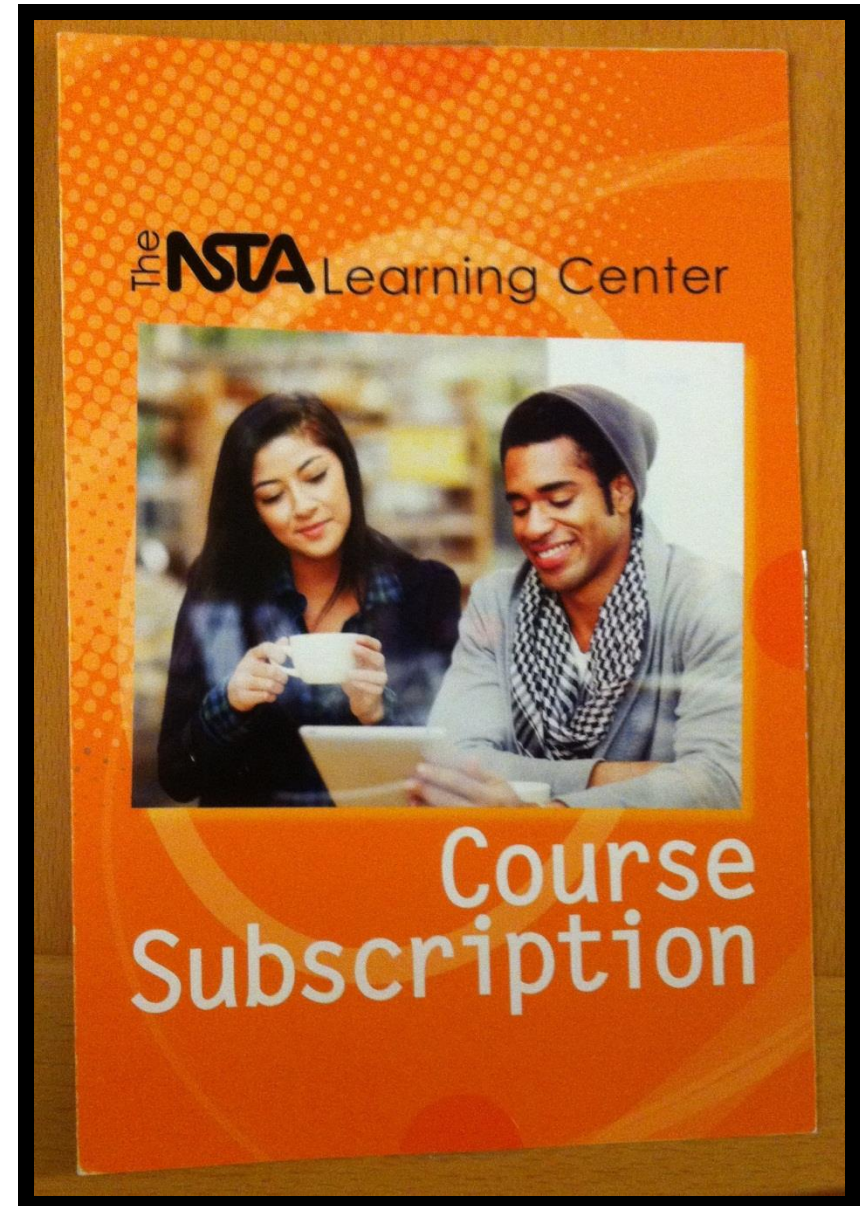
Week of December 02, 2012

[Top Advocate](#)

Week of December 02, 2012

Option 1: \$67 per student	Option 2: \$99 per student
Class landing page (with branding), custom text and home button; link back to institution; local leader boards	same
Private community forum (optional)	same
Pre/post assessment items (optional)	same
Online advisors, content mentors, help desk, online orientation	same
Student: All NLC fee-based resources free for 6-months (except: books, e-books, online courses); tools, forums	Student: All NLC fee-based resources free for 1-year (except: books, e-books, online courses); tools, forums
Student: 1-year NSTA Student Membership (\$35 value)	same
Professor: All NLC fee-based resources free for 6-months (except: books, e-books, online courses); tools, forums	Professor: All NLC fee-based resources free for 1-year (except: books, e-books, online courses); tools, forums
Professor: Access to administrator dashboard with usage data, assessments scores	same

University/college
bookstore
subscription course
card available
*(includes unique
Learning Center
code)*



Panel discussion

Al Byers, Moderator

Kate Baird, Indiana University-Purdue University Columbus

Susan Blunck, University of Maryland Baltimore County

Carolyn Mohr, Dominican University

Michael Odell, University of Texas at Tyler

Kathy Sparrow, Florida International University

William Veal, College of Charleston



The NSTA Learning Center Exploration

<http://learningcenter.nsta.org>

Let's vote for three actions on this list!

- _____ Create/access your Learning Center account
- _____ Update your profile
- _____ Add NSTA resources to your library
- _____ Add personal resources to your library
- _____ Create a class landing page for e-textbook (Steps 1&2)
- _____ Explore the forums (read/post)
- _____ Create a sample collection (at least 3 resources)
- _____ Share the collection with a person attending this workshop
- _____ Share the collection with a person not attending this workshop
- _____ Make your collection public
- _____ Do a search by keyword
- _____ Do an advanced search by keyword; search for user created collections
- _____ Register to attend a web seminar (Suggested: 1/30 and/or 2/20)
- _____ Recommend a resource to a friend
- _____ Check the leader boards
- _____ Ask a question to an online advisor
- _____ Open one of your resources, explore it, and write a review about it
- _____ Speak/ask questions to one of the panelists
- _____ Complete a PD Indexer

The NSTA Learning Center Survey

<http://learningcenter.nsta.org>

If you like to learn more about using the Learning Center stop by our table here at ASTE and/or contact Flavio Mendez to set up an appointment.

fmendez@nsta.org

703-312-9250

Thank you!

Al Byers and Flavio Mendez, NSTA

Kate Baird, Indiana University-Purdue University Columbus

Susan Blunck, University of Maryland Baltimore County

Carolyn Mohr, Dominican University

Michael Odell, University of Texas at Tyler

Kathy Sparrow, Florida International University

William Veal, College of Charleston

Additional slides

NSTA Learning Center

Integrating NSTA/CAEP Standard 6

NSTA Preservice Standard 6

Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content, and science pedagogy, including approaches for addressing inequities and inclusion for all students in science. They identify with and conduct themselves as part of the science education community.

Preservice teachers will:

- 6a) Engage in professional development opportunities in their content field such as talks, symposiums, research opportunities, or projects within their community.
- 6b) Engage in professional development opportunities such as conferences, research opportunities, or projects within their community.

Interpretation

- 6a: Professional knowledge and skills for science content area.
- 6b: Professional knowledge and skills for science education area.

NSTA Learning Center

6a: Science Content Learning

- Pre and post-assessments
- Science content learned through podcasts, book chapters, journal articles, science objects, SciPacks, SciGuides, Symposia, and Web Seminars.

Evidence or Data?

- Write a report with a rubric that includes criteria about learning science content in a PD environment.
- T-tests of pre and post-test results.

NSTA Learning Center

6b: Science Education

- Experience science education through podcasts, book chapters, journal articles, SciPacks, SciGuides, Symposia, Professional Development Institute, Web Seminars, and Community Forums.

Evidence or Data?

- Write a report to reflect on the experience and what the candidate learned. Rubric criteria reflect these items.
- A checklist for attendance does not reflect the intent of the standard.