Thanks for joining us! We will begin promptly at 2pm ET.

- Use the “questions” area to submit questions as they arise
- This webinar will be archived at NROCnetwork.org
- Follow us at #NROCpd

Need help accessing? Please email: memberservices@NROC.org
NROC partners with educators to create open and low-cost courses and tools that are designed to recognize every student’s unique learning needs and preferences.

These resources can be adapted and scaled to meet programmatic goals in a variety of instructional settings.
“Open Educational Resources (OERs) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.”
THE OER ECOSYSTEM

NROC
- text-based materials (all uses)
- multimedia courses (individual use)
- web-based tools for (individual use)

NROC PROJECT

NROC MATH
- multimedia courses (institutional use)

NROC ENGLISH
- multimedia courses (institutional use)

EdReady
- powered by NROC

HippoCampus
- powered by NROC

MORE OPEN

LESS OPEN
THE HYBRID MODEL ALLOWS US TO...

support and redistribute OER, from ourselves and partner projects;

build and maintain platforms for enabling people to find, adapt and share OER, and to engage in open educational practices;

invest most of our time and energy into improving learning outcomes, with special attention to college and career readiness;

and stay committed to the effort and investment of our institutional members for the long term, fulfilling the promise of OER.
NROC collaborates with educators to imagine, develop, test, & refine technologies that improve student success.
WHAT WE OFFER

NROC COURSES

NROC MATH
- Algebra 1
- Developmental Math

NROC ENGLISH
- Developmental English

WEB-BASED TOOLS

EdReady
a readiness system (to personalize a learner’s study path)

Hippo Campus
a curated repository of learning objects

NROC courses can be installed in a Learning Management System (LMS)

or can be accessed through our web-based tools
NROC COURSES

Media-Rich, Learner-Centered, & Pedagogically Diverse

NROC.org
Adaptable within Local Learning Management Systems
Algebra 1

This two-semester course was developed for first-time algebra students of all ability levels. The program introduces learners to mathematics concepts, procedures, mathematical reasoning, and critical thinking.

Installed courses are for use in a Learning Management System (LMS)
Developmental Math

This course was developed for students striving to meet basic college entrance requirements. The adaptive pre-assessment personalizes a learner’s path through Arithmetic, Beginning and Intermediate Algebra, and Statistics, Geometry, and Trigonometry topics.
Operations with Radicals

Topic Home
You can start by clicking on Warm Up to see if you are prepared to take this topic. When you are ready, work through the Presentation, Worked Examples, Topic Text and Practice problems. Then, take the Review to test your understanding of this topic.

Upon completing this Topic you will be able to:
- Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium.
- Ut enim ad minima veniam.
- Neque porro quisquam est.

1. Warm Up
2. Presentation
3. Worked Example
4. Topic Text
5. Practice
6. Review
Review questions provide immediate feedback to students and suggest concepts they should revisit before moving on.

You have completed the Review. Here are your results:

<table>
<thead>
<tr>
<th>Status</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

- Question 1: Correct
- Question 2: Incorrect

Here are some concepts you should review before you continue with this Topic:

- Use three different ways to represent multiplication.
- Multiply whole numbers.
- Multiply whole numbers by a power of 10.
- Find the area of a rectangle.
- Solve application problems using multiplication.
UNIT LEVEL ACTIVITIES

• Virtual Tutor
• Project-Based Learning Activity
• Unit Level Assessments
• Use Tutor Simulation with entire class
• Review + high level formative assessment activity
• Simulations often involve a real problem/scenario to contextualize the content and require application
Project-Based Learning Activity
Analyze and Graph Linear Equations, Functions and Relations

Project Title
What can you do for your community?

Introduction
Community service projects allow you to apply the lessons you have learned in the classroom to real-life situations and experiences. They also allow you to raise money for those in need in your community, or help with an environmental cause. Community projects are also a good way to learn how to work with a team to accomplish a project. For ideas about projects you might pursue in your community visit these Web sites:
- [http://www.epa.gov/teachers/community-svc-projects.htm](http://www.epa.gov/teachers/community-svc-projects.htm)
- [http://www.groundwater.org/ta/serviceproject.htm](http://www.groundwater.org/ta/serviceproject.htm)
- [http://www.ckcareertech.org/health/HOSACommunServIdeas.htm](http://www.ckcareertech.org/health/HOSACommunServIdeas.htm)

Task
For this project you will need to decide what service project you would do for your community. You may do this project alone, but it will be most rewarding to form a small team to figure out how to accomplish your project. The project can be anything that you feel is important, but for the purposes of this activity, it should be a project that requires you to raise money for a cause. You will decide how much money you want to raise, then you will design a budget for the community service project of your choice. This should include a detailed breakdown of your costs, projected income, and a timeline showing when you expect to reach your target for the amount of money you have decided to raise.

Instructions
Write a brief description of your project, then add information about the money you will raise by solving the following problems:

1. First problem:
   - How much money do you need to raise for your community service project? Explain why this amount of money is necessary.
UNIT LEVEL QUIZ

Developmental Math - Units 1-19 w/PreAssessments

Question 1
A baseball player went up to bat 500 times in a season. He hit the ball 150 times. Find the rate of balls hit to times at bat. Express as a simplified fraction.
Select one:
- a. 3 to 10
- b. 3 to 7
- c. 7 to 10
- d. 10 to 3

Question 2
A sprinter can run 279 feet in 9 seconds. Find the sprinter’s unit rate of feet per second.
Select one:
- a. 1 second
- b. 3:1
- c. 9 seconds
- d. 31 seconds

Question 3
A 16-ounce bottle of Spring Water is $1.76. A 20-ounce bottle of Fresh Water is $2.40. Which statement about the unit prices is true?
Select one:
- a. Fresh Water has a lower unit price of $0.12/ounce.
- b. Fresh Water has a lower unit price of $0.11/ounce.
- c. Spring Water has a lower unit price of $0.12/ounce.
- d. Spring Water has a lower unit price of $0.11/ounce.
QUESTIONS?
Using the tools already built into your LMS, you can edit/add quiz questions.
• Member in Indiana worked with tech teacher to create problems specific to career pathways
• Contextualize the math and give students an opportunity to apply math skills to their chosen field of study.
Standard Version

Unit 1 - Whole Numbers
Lesson 1: Introduction to Whole Numbers
- Learning Objectives
  - Topic 1: Place Value and Names for Whole Numbers
  - Topic 2: Rounding Whole Numbers
  - Topic 3: Comparing Whole Numbers
Lesson 2: Adding and Subtracting Whole Numbers
- Learning Objectives
  - Topic 1: Adding Whole Numbers and Applications
  - Topic 2: Subtracting Whole Numbers and Applications
  - Topic 3: Estimation
Lesson 3: Multiplying and Dividing Whole Numbers
- Learning Objectives
  - Topic 1: Multiplying Whole Numbers and Applications
  - Topic 2: Dividing Whole Numbers and Applications
Lesson 4: Properties of Whole Numbers
- Learning Objectives
  - Topic 1: Properties and Laws of Whole Numbers
  - Topic 2: The Distributive Property
Lesson 5: Exponents, Square Roots, and the Order of Operations
- Learning Objectives
  - Topic 1: Understanding Exponents and Square Roots
  - Topic 2: Order of Operations
Tutor Sim: Shopping for Office Supplies
Team Project: Open for Business
Unit 1 Quiz - not available in this preview
Unit 1 Glossary

Pre-Assessment Version

Unit 1 - Whole Numbers
- Learning Objectives
  - Unit Map & Pre-Assessment
  - Tutor Sim: Shopping for Office Supplies
  - Team Project: Open for Business
  - Unit 1 Quiz Form A
  - Unit 1 Quiz Form B
  - Unit 1 Glossary

Only avail. in Dev Math
# Whole Numbers

## Dividing Whole Numbers and Applications
- **Correct**: 25%
- **Incorrect**: 75%

## Properties and Laws of Whole Numbers
- **Correct**: 100%
- **Incorrect**: 0%

## The Distributive Property
- **Correct**: 0%
- **Incorrect**: 100%

## Understanding Exponents and Square Roots
- **Correct**: 50%

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## My Learning Path

My Learning Path shows only the Topics you need to study based on your answers in the Pre-Assessment. Click on a Topic to begin studying. We suggest you work through the Topics in the order listed. As you master additional Topics they will be removed from your Learning Path.

### Multiplying and Dividing Whole Numbers
1. Multiplying Whole Numbers and Applications
2. Dividing Whole Numbers and Applications

### Properties of Whole Numbers
1. The Distributive Property
2. Understanding Exponents and Square Roots
3. Order of Operations
PRACTICAL APPLICATION

- Member in NC using Dev Math with Pre-Assessment in a 1-credit hr math lab
- Weekly assigned activities in NROC Course parallels main course/lecture
- Pre-Assessment and Learning Path allow for differentiation within the math lab
In all NROC Math courses, topics and activities can be added or removed.
Developmental Math Units

1. Whole Numbers
2. Fractions and Mixed Numbers
3. Decimals
4. Ratios, Rates, and Proportions
5. Percents
6. Measurement
7. Geometry
8. Statistics
9. Real Numbers
10. Solving Equations and Inequalities
11. Exponents and Polynomials
12. Factoring
13. Graphing
14. Systems of Equations and Inequalities
15. Rational Expressions
16. Radical Expressions and Quadratic Equations
17. Functions
18. Exponential and Logarithmic Functions
19. Trigonometry

Customized for Precalculus

- Geometry
- Real Numbers
- Solving Equations and Inequalities
- Exponents and Polynomials
- Factoring
- Graphing
- Systems of Equations and Inequalities
- Rational Expressions
- Radical Expressions and Quadratic Equations
- Functions
- Exponential and Logarithmic Functions
- Trigonometry
CUSTOMIZING COURSES

- Developmental Math with Pre-Assessment utilizes our NROC Course Manager
- Topics can be added and removed from each unit by logging in and editing each unit individually
NROC COURSE MANAGER

- Add/remove instructors
- Enable/Disable pre-assessment
- Allow retakes
- Enable help request (to instructor)
- Set Mastery score
NROC COURSE MANAGER

Class Summary Report:

- Visually compare student progress across units and topics
- Ready access to individual scores for each student
- Class averages for each unit

Unit Progress Report by Student:

- Tracks Scores for Warm-up, Practice, Review and Pre-Assessments
- Time spent in each section of a topic
QUESTIONS?
JOIN US!

If you are interested in learning more about how NROC courses, tools, and membership can support your initiatives, contact us today.

membership@NROC.org
NROC MEMBERSHIP ACTIVITIES / BENEFITS

Robust implementation and technical support

Dedicated implementation specialist
Daily Office Hours
Regular Info Sessions
Comprehensive Help Center and technical ticket support
Live Assistance

We offer two options for getting live support, Daily Office Hours and Implementation/Support Appointments. Please select the option that best fits your need.

- Office Hours
- Personal Appointments

Can’t make it?

Support tickets are typically answered within a few hours, Monday-Friday, 9am to 5pm PT.

Submit a Support Ticket

Office Hours Schedule

Monday: 12:00 PM Eastern
Tuesday: 4:00 PM Eastern
Wednesday: 4:00 PM Eastern
Thursday: 4:00 PM Eastern
Friday: 12:00 PM Eastern

https://nrocnetwork.org/ask
http://NROCnetwork.org

Past Sessions (recording available):
Data-Driven Classroom Instruction: Leveraging EdReady to Meet Your Students Where They Are

Upcoming:
Remix and Adapt English Instruction with NROC’s Open Courses
Wednesday, May 16 at 2 PM ET

Curating Curricular Playlists for Supplemental Instruction
Thursday, May 17 at 2 PM ET
Thank you!

Jason Gipson-Nahman

jgipson-nahman@nroc.org

Access the archived webinar at NROCnetwork.org

Download our Student Success eBook for more great ideas that scale...