New and Enhanced OER for Math and English

Thanks for joining us! We will begin promptly at 2:00 p.m. ET.

- Use the "questions" area to submit questions as they arise.
- This webinar will be archived at NROCnetwork.org, and you will receive a follow-up email with a link to the recording and slides.
- Contribute to the Twitter conversation at #NROCpd.
- Do you need help with GoToWebinar? Email memberservices@NROC.org.
WHAT IS NROC?
Changing the Way College and Career Readiness is Approached and Supported
WHO ARE NROC MEMBERS?
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.
NROC collaborates with educators to imagine, develop, test, & refine technologies that improve student success.
HOW IS NROC DIFFERENT FROM TRADITIONAL PUBLISHERS?
Member institutions receive unlimited access to our suite of solutions & implementation services.
# 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

*& a new product created in partnership with ACT CollegeReady...*
WHAT DOES NROC STAND FOR?

Network
Resources
Open / Accessible
College & Career Readiness
DO I HAVE TO USE NROC COURSES AND TOOLS OUT-OF-THE-BOX?
UNESCO DEFINITION OF OER

“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 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.
New Collections for HippoCampus

Fall 2018
Hippo Campus

HippoCampus is a curated repository of over 6,800 multimedia learning objects from NROC and other respected providers, including Khan Academy, PhET, and NOAA.
HippoCampus

New Collections:

• The Nature of Writing (132 videos for English)
• Grammatically Correct (15 videos for English)
• OpenIntro (96 videos for Statistics)

Updated Collections:

• 11 new videos in Why U (Algebra)
• 5 PhET simulations updated to HTML5
• 7 new PhET simulations added
• 17 updated (HTML5) MathSnacks videos with captions
The Nature of Writing

Conrad van Dyk's Vision for The Nature...
The Nature of Writing

Indefinite pronouns:
- each, anyone, somebody, nobody, none, either, both, several, many, some...

Reflexive pronouns:
- myself, yourself...

Reciprocal:
- each other, one another
Grammarically Correct Collection

HippoCampus.org

Collections
Teaching with the Power of Digital Media

Grammar Basics
Lesson 1: The Independent Clause
Lesson 2: Phrases and Clauses
Lesson 3: Filling the Syntactic Slots
Lesson 4: Loading the Syntactic Slots
Lesson 5: External Phrases and Clauses Part 1
Lesson 6: External Phrases and Clauses Part 2
Lesson 7: External Phrases and Clauses Part 3
Lesson 8: The Colon and the Em Dash
Lesson 9: Stacking Phrases and Clauses
Lesson 10: The Semicolon
Lesson 11: The Transition
Lesson 12: The Conjunction
Lesson 1 Review Quiz
Lessons 2-4 Review Quiz
Who versus Whom

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Observations, variables, and data matrices

Data matrices are a convenient way to record and store data.

- Each row in the table represents a single county. We call these case.
- Columns represent characteristics, called variables, for each county.
- If another individual or case is added to the data set, an additional row can be easily included. Similarly, another column can be added for a new variable.

<table>
<thead>
<tr>
<th>Case</th>
<th>State</th>
<th>Zip Code</th>
<th>Avg. Age</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alabama</td>
<td>30001</td>
<td>30.5</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Alabama</td>
<td>30002</td>
<td>31.0</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>California</td>
<td>90210</td>
<td>28.5</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>California</td>
<td>90210</td>
<td>29.0</td>
<td>5</td>
</tr>
</tbody>
</table>

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Area Model Algebra

Explore
Questions about HippoCampus
Open Textbooks

Algebra, Developmental Math, and Developmental English
Proper and Improper Fractions

Learning Objectives

- Identify proper and improper fractions.
- Change improper fractions to mixed numbers.
- Change mixed numbers to improper fractions.

Introduction

Mathematicians use three categories to describe fractions: proper, improper, and mixed.

Fractions that are greater than 0 but less than 1 are called proper fractions. In proper fractions, the numerator is less than the denominator. When a fraction has a numerator greater than the denominator, the fraction is an improper fraction. An improper fraction is greater than 1. And, finally, a mixed number is a combination of a whole number and a proper fraction.
Unit 1 - Whole Numbers
Lesson 1 - Introduction to Whole Numbers
  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
  Topic 1 - Adding Whole Numbers and Applications
  Topic 2 - Subtracting Whole Numbers and Applications
  Topic 3 - Estimation
Lesson 3 - Multiplying and Dividing Whole Numbers
  Topic 1 - Multiplying Whole Numbers and Applications
  Topic 2 - Dividing Whole Numbers and Applications
Lesson 4 - Properties of Whole Numbers
  Topic 1 - Properties and Laws of Whole Numbers
  Topic 2 - The Distributive Property
Lesson 5 - Exponents, Square Roots, and the Order of Operations
  Topic 1 - Understanding Exponents and Square Roots
  Topic 2 - Order of Operations

Unit 2 - Fractions and Mixed Numbers

Libro de Texto Abierto
Tabla de Contenido

Unidad 1 - Números Enteros
Lección 1 - Introducción a Números Enteros
  Tema 1 - Valor Posicional y Nombres de los Números Enteros
  Tema 2 - Redondeando Números Enteros
  Tema 3 - Comparando Números Enteros
Lección 2 - Sumando y Restando Números Enteros
  Tema 1 - Sumando Números Enteros y Aplicaciones
  Tema 2 - Restando Números Enteros y Aplicaciones
  Tema 3 - Estimación
Lección 3 - Multiplicando y Dividiendo Números Enteros
  Tema 1 - Multiplicando Números Enteros y Aplicaciones
  Tema 2 - Dividiendo Números Enteros y Aplicaciones
Lección 4 - Propiedades de Números Enteros
  Tema 1 - Propiedades y Leyes de los Números Enteros
  Tema 2 - La Propiedad Distributiva
Lección 5 - Exponentes, Raíces Cuadradas, y Orden de las Operaciones
  Tema 1 - Entendiendo Exponentes y Raíces Cuadradas
  Tema 2 - Orden de Operaciones

Unidad 2 - Fracciones y Números Mixtos
Introduction to Fractions and Mixed Numbers

Learning Objectives

- Identify the numerator and denominator of a fraction.
- Represent a fraction as part of a whole or part of a set.

Introduction

Many problems in mathematics deal with whole numbers, which account students in a classroom and the number of dollar bills. You might count students in a classroom and the number of dollar bills. For example, an aquarium might be partly full. A group may have fractions of a piece of notebook paper is more than 1 whole. Here, you will investigate how fractions can be used in everyday life.

Fractions are numbers used to refer to a part of a whole. This is important because a piece of notebook paper is more than 1 whole. Here, you will investigate how fractions can be used in everyday life.

LIBRO DE TEXTO ABIERTO

Introducción fracciones y números mixtos

Objetivos de aprendizaje

- Identificar el numerador y el denominador de una fracción.
- Representar una fracción como parte de un entero o parte de un conjunto.

Introducción

Muchos problemas matemáticos tratan con números enteros, que se usan para contar unidades enteras de cosas. Por ejemplo, puedes contar estudiantes en un salón de clases y el número de billetes de a dólar. Pero necesitas otro tipo de números para describir unidades que no son enteras. Por ejemplo, un acuario puede estar parcialmente lleno. Un grupo puede tener una junta, pero sólo algunos miembros están presentes.

Las fracciones son números que expresan una parte de una unidad. Esto incluye mediciones que no se pueden escribir como un número entero. Por ejemplo, un cuaderno es mayor que 8 pulgadas pero menor que 9 pulgadas. La parte que es más pequeña es la fracción. Vamos a investigar cómo las fracciones se pueden escribir y usar para representar cantidades parciales.
HTML format

COMING SOON
Comma Splices

Learning Objectives:
- Identify comma splices.
- Correct comma splices.

LESSON
A comma splice is a type of run-on sentence that occurs when two independent clauses are incorrectly joined with a comma instead of a period, semicolon, or conjunction.

This is an example of a comma splice:

I ran to the store, I bought Rocky Road ice cream.

This sentence is made up of two independent clauses separated by a comma, which makes it a comma splice. An independent clause is a group of words that can stand on its own as a complete sentence, meaning that it has a subject and a predicate.
# OPEN TEXTBOOK

## TABLE OF CONTENTS

### Unit 1: Introduction to College Reading and Writing
- Author, Audience, and Purpose
- Topic Sentences
- Fact and Opinion
- Responding to a Reading
- Revising, Editing, and Proofreading
- Subjects and Verbs
- Prepositional Phrases
- End Punctuation
- Using Context Clues
- Identifying Word Parts
- Essential College Skills: Timeliness and Punctuality

### Unit 2: Identifying Main Ideas
- Stated Main Ideas
- Supporting Details
- Annotating a Reading
- Developing a Thesis Statement and Supporting Ideas
- Writing a Summary
- Writing a Summary-Response
- Run-on Sentences
- Comma Splices
- Sentence Fragments
- Essential College Skills: Critical Thinking

### Unit 3: Discovering Implied Meaning
- Major and Minor Supporting Details
- Author’s Point of View and Cultural Context
- Implied Main Ideas
- Developing an Implied Thesis Statement and Topic Sentences
- Subject-Verb Agreement
Comma Splices

Learning Objectives:
- Identify comma splices.
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LESSON
A comma splice is a type of run-on sentence that occurs when two independent clauses are incorrectly joined with a comma instead of a period, semicolon, or conjunction.

This is an example of a comma splice:

*I ran to the store, I bought Rocky Road ice cream.*

This sentence is made up of two independent clauses separated by a comma, which makes it a comma splice. An independent clause is a group of words that can stand on its own as a complete sentence, meaning that it has a subject and a predicate.

*I ran to the store*: independent clause (subject *I* + predicate *ran to the store*); *I bought Rocky Road ice cream*: independent clause (subject *I* + verb *bought*).

You can fix a comma splice error in much the same way that you can fix a run-on sentence:

Option 1: Add a coordinating conjunction (*for, and, nor, but, or, yet, so*) after the comma.

*I ran to the store, and I bought Rocky Road ice cream.*

Option 2: Replace the comma with a period and create two sentences.

*I ran to the store, I bought Rocky Road ice cream.*
Developmental Math, Algebra, and Developmental English – Word and PDF files
Open Textbooks + Hippo

OPEN TEXTBOOK
TABLE OF CONTENTS

Unit 1 - Whole Numbers
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  Topic 1 - Understanding Exponents and Square Roots
  Topic 2 - Order of Operations
Unit 2 - Fractions and Mixed Numbers

HippoCampus.org
Algebra & Geometry

Algebra 1
Presentation 1
NROC Collection
Algebra I—An Open Course (2011)
Developmental Math - Beginning Algebra
Developmental Math - Intermediate Algebra
Developmental Math - Geometry
Art of Problem Solving Collection
Pre-Algebra
Introduction to Algebra
Geometry
Phoenix College Collection
Geometry
Algebra 1
Why U Collection
Algebra Foundational Concepts
Worked Examples
NROC Collection
Algebra I—An Open Course (2011)

Let's explore the graph of the basic absolute value function.

\[ f(x) = |x| \]

This function is very important in the study of calculus.
Questions about Open Textbooks
EdReady
EdReady

EdReady is a math and English readiness system that employs a knowledge inventory to personalize a learner’s path to subject mastery within the context of a specific educational goal.
EdReady

EdReady is a math and English readiness system that employs a knowledge inventory to personalize a learner’s path to subject mastery within the context of a specific educational goal.
WEB-BASED TOOLS

Open and Designed for Institutional Customization

USE CASES:
- Test preparation
- Credit recovery or acceleration
- College bridge program
- Co-requisite or supplemental
- Multiple measures

DELIVERY METHODS:
- Traditional classroom
- Independent study
- Flipped classroom
- Online course
- Academic boot camp

EdReady
What do you want your students to be ready for?

**Goals**
Create goals that are meaningful to your students.

**Scope**
You can tailor study paths and embedded diagnostics to support programmatic needs within a customized scope of expectations.

**Resources**
Select and prioritize content interventions.

**Data Access**
Access data for planning and evaluation.

**Readiness**
Customize messaging to let students know what is next.
Questions about EdReady
THE OER ECOSYSTEM

NROC text-based materials (all uses)

NROC multimedia courses (individual use)

NROC web-based tools for (individual use)

NROC multimedia courses (institutional use)

EdReady

NROC web-based tools for (institutional use)

HippoCampus
IT’S NOT A PRODUCT YOU BUY, IT’S A MOVEMENT YOU JOIN.

NROC MEMBERSHIP ACTIVITIES

- Live monthly webinars on teaching with technology
- Online forum to collaborate with other members and help guide NROC
- Annual Member Meeting in Monterey, CA
- Regional user conferences
- Opportunities to participate in product pilots and user studies
- Robust implementation and technical support
- Access to NROC teacher orientation resources
- Unlimited use of all NROC courses and tools for local adaptation
MEMBERSHIP WORKS BEST WHEN PARTNERS:

Commit
significant time and staffing to becoming facile with NROC courses and tools

Adapt
NROC's suite of solutions to meet their students' specific needs

Contribute
efficacy stories and original supplemental resources to the broader membership
We cultivate relationships that empower an ever-increasing number of learners to take charge of their academic journeys.
Secondary

Postsecondary

Adult Education

FLIPPED CLASSROOMS
REVIEWS AND ACCELERATION
CAREER AND TECHNICAL PROGRAMS
EXAM PREPARATION
HIGH SCHOOL / COLLEGE BRIDGE PROGRAMS
SUPPLEMENTAL INSTRUCTION
SUPPORT FOR TRANSITIONS
CO-REQUISITE INSTRUCTION
INDEPENDENT STUDY OPTIONS
Special thanks to our presenters:

Ahrash Bissell, Director of Strategic Partnerships, abissell@NROC.org
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Beth Pickett, Editorial Project Manager, bpickett@NROC.org

Thank you for joining us!

This webinar will be archived at NROCnetwork.org. Additionally, please expect an email with a link to the video and presentation assets.