# 6 Math Unit 01: Numerical Expressions & Factors

Content Area: Mathematics

Course(s):

Time Period: September
Length: 13 days
Status: Published

## **Unit Overview**

In this chapter, students will extend their knowledge from prior courses. It is important for students to become secure in this content, so the foundation is set for completing computational work with fractions and decimals in the next chapter.

## **Standards**

MA.6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents.

MA.6.NS.B.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the

least common multiple of two whole numbers less than or equal to 12. Use the

distributive property to express a sum of two whole numbers 1–100 with a common factor

as a multiple of a sum of two whole numbers with no common factor.

## **Materials**

## **Big Ideas Math**

- 1.1 Powers and Exponents
- 1.2 Order of Operations
- 1.3 Prime Factorization
- 1.4 Greatest Common Factor
- 1.5 Least Common Multiple

#### **Desmos**

Unit 6 - Expressions & Equations

- ST Math
- Delta Math
- 3 Act Lessons
- Brainingcamp Manipulatives
- Nearpod Lessons
- Brainpop Resources
- Online Resources

# **Technology**

- 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.
  - 8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose.
  - 8.1.8.DA.5: Test, analyze, and refine computational models.

## **Assessment**

#### **Formative Assessment**

- Teacher Observation
- Daily Quick Check
- Quizzes
- Exit Tickets

#### **Summative Assessment**

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

## **Accommodations & Modifications**

## **Special Education**

- Follow IEP Plan which may contain some of the following examples...
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages

- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

#### **504**

- In class/pull out support with special ed teacher Additional time during intervention time
- Preferred seating
- · Questions read aloud
- Extended time for completing tasks Graphic organizers
- Vocabulary support Mnemonic devices
- Songs/videos to reinforce concepts Limit number of questions
- Scribe Manipulatives Calculators Reteach pages Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

## **ELL**

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- · Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

## At-risk of Failure

- Additional time during intervention time
- · Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

#### **Gifted & Talented**

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

## **Interdisciplinary Connections**

Topic 1 STEM Project - Improve Your School -

In this project, students are introduced to the science of engineering. They learn about the ways that engineers solve problems to improve products. Students begin to think like engineers and identify needed improvements around their school.

#### Science Connection -

Students engage in the first steps of the engineering design process by defining a problem in terms of needed improvements. They recognize how societal needs and the ways in which humans interact with the physical world determine constraints and limitations on possible solutions.

ELA: NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Science: MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

# 21st Century Life Literacies & Key Skills

- 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal
- 9.4.8.IML.3: Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping
- 9.4.8.IML.4: Ask insightful questions to organize different types of data and create meaningful visualizations.
- 9.4.8.TL.1: Construct a spreadsheet in order to analyze multiple data sets, identify relationships, and facilitate data-based decision-making
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.

# **Career Ready Practices**

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.