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

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. For example, express 36 + 8 as 4 (9 + 2).
6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.

Materials

Core 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

Supplementary Materials

- Desmos: Unit 6 - Expressions & Equations
- ST Math
- Delta Math
- 3 Act Lessons
- Brainingcamp Manipulatives
- Nearpod Lessons
- Brainpop Resources
- Online Resources

Technology

DA	Data & Analysis
8.1.8.DA.5	Test, analyze, and refine computational models.
8.1.8.AP.4	Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.

Assessment

Formative Assessment

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

Summative Assessment

- Topic Tests
- Benchmark Tests

Alternative Assessment

- Performance Tasks & Projects

Accommodations & Modifications

Special Education

Differentiated Instruction			
Accommodate Based on Students Individual Needs: Strategies			
Time/General	**Processing**	**Comprehension**	**Recall**
• Extra time for assigned tasks • Adjust length of assignment • Timeline with due dates	• Extra response time • Have students verbalize steps • Repeat, clarify, or reword directions	• Precise step-by-step directions • Short manageable	• Teacher-made checklist • Use visual graphic

for reports and projects • Communication system between home and school • Provide lecture notes/outline	• Mini-breaks between tasks • Provide a warning for transitions • Reading partners	tasks • Brief and concrete directions • Provide immediate feedback • Small group instruction • Emphasize multi-sensory learning	organizers • Reference resources to promote independence • Visual and verbal reminders • Graphic organizers
Assistive Technology • Computer/whiteboard • Tape recorder • Spell-checker • Audio-taped books	**Tests/Quizzes/Grading** • Extended time • Study guides • Focused/chunked tests • Read directions aloud	**Behavior/Attention** • Consistent daily structured routine • Simple and clear classroom rules • Frequent feedback	**Organization** • Individual daily planner • Display a written agenda • Note-taking assistance • Color code materials

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
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- 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.

SL.PE.6.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others'

	ideas and expressing their own clearly.
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.

Career Readiness, Life Literacies & Key Skills

9.2.8.CAP.3	Explain how career choices, educational choices, skills, economic conditions, and personal behavior affect income.
9.1.8.EG.1	Explain how taxes affect disposable income and the difference between net and gross income.
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 (e.g., 6.SP.B.4, 7.SP.B.8b).
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.