

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.1

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem-solving process	Use reasoning abilities.

Performance Indicators		
<ol style="list-style-type: none"> 1. Evaluate information. 2. Perceive patterns. 3. Extend growing numerical and geometric patterns. 4. Identify relationships between concepts. 5. Formulate questions for further exploration. 6. Evaluate strategies. 7. Use a variety of strategies (using simpler numbers, making tables). 8. Justify statements. 9. Check if results are reasonable. 10. Defend work. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.2

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem solving process	Communicate logical arguments clearly to show why a result makes sense.

Performance Indicators		
1. Communicate logical arguments clearly.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.3

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem-solving process	Analyze non-routine problems by modeling, illustrating, guessing, simplifying, generalizing, or shifting to another point of view.

Performance Indicators		
1. Use appropriate analysis of non-routine problems.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.4

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem-solving process	Develop effective oral and written presentations.

Performance Indicators

1. Use technology appropriately.
2. Use the conventions of mathematics (e.g. symbols, definitions, labeled drawings).
3. Use mathematical language.
4. Use clear organization of ideas and procedures.
5. Understand of purpose and audience.

Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.5

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem-solving process	Explain mathematical concepts, procedures, and ideas to others who may not be familiar with them.

Performance Indicators		
1. Explain mathematical concepts, procedures and ideas.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.A.6

Strand: Problem Solving

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use a variety of strategies in the problem-solving process	Read and understand mathematical texts and other instructional materials and recognize mathematical ideas as they appear in other subject areas.

Performance Indicators		
1. Read and understand mathematical ideas in texts and other subject areas.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5B.1

Strand: Properties and Concepts of Numbers

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of numbers.	Read, represent and interpret various rational numbers with verbal descriptions, geometric models and mathematical notation.

Performance Indicators		
<ol style="list-style-type: none"> 1. Identify place value to billions. 2. Round numbers to ten thousand. 3. Write decimals to thousandths. 4. Write improper fractions for numbers. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.B.2

Strand: Properties and Concepts of Numbers

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of numbers.	Generate and explain equivalencies among fractions and decimals.

Performance Indicators		
1. Generate and explain equivalencies among fractions and decimals.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.B.3

Strand: Properties and Concepts of Numbers

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of numbers.	Express order relationships among rational numbers (decimals) using appropriate symbols $>$, $<$.

Performance Indicators		
1. Order rational numbers using appropriate symbols.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.B.4

Strand: Properties and Concepts of Numbers

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of numbers.	Model and solve problems involving number theory concepts.

Performance Indicators		
<ol style="list-style-type: none"> 1. Use prime and composite numbers. 2. Use number theory principles: multiples, factors, prime and composite numbers. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.C.1

Strand: Computation

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use basic and advanced procedures while performing the processes of computation.	Perform and explain operations using rational numbers.

Performance Indicators		
<ol style="list-style-type: none"> 1. Multiply 3-digit numbers. 2. Divide 3-digit numbers by 2 digit divisors with remainders. 3. Add and subtract fractions having unlike denominators. 4. Add, subtract, multiply and divide decimals through the thousandths. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.C.2

Strand: Computation

Diocesan Standard Terra Nova Objective	Benchmark Statement
Use basic and advanced procedures while performing the processes of computation.	In problem solving situations, select and use appropriate computational procedures with rational numbers.

Performance Indicators		
<ol style="list-style-type: none"> 1. Calculate mentally. 2. Estimate. 3. Create, use and explain algorithms using technology. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.E.1

Strand: Geometry

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of geometry	Describe two dimensional figures.

Performance Indicators		
<ol style="list-style-type: none"> 1. Name, define and give examples. 2. Identify different types of quadrilaterals. 3. Name polygons having 3 to 10 sides. 4. Compare, sort and classify polygons. 5. Draw and construct physical models to specifications. 6. Measure and draw angles. 7. Explain how figures relate to objects in the environment. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.E.2

Strand: Geometry

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of geometry	Locate objects using the rectangular coordinate system.

Performance Indicators		
1. Locate objects using the rectangular coordinate system.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.D.1

Strand: Measurement

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of measurement	Demonstrate understanding of basic measurement facts, principles and techniques.

Performance Indicators		
1. Use approximate comparisons between and within the metric and U.S. customary units.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.D.2

Strand: Measurement

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of measurement	Determine measurement directly using standard units (metric and US).

Performance Indicators		
1. Determine to the nearest one-eighth inch, centimeter and meter.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.D.3

Strand: Measurement

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of the concepts of measurement	Determine measurements indirectly by using various strategies.

Performance Indicators
<ol style="list-style-type: none"> 1. Use estimation. 2. Determine geometric formulas to derive perimeter and area of rectangles and squares.

Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fourth
 Section/Heading: 5.F.1

Strand: Probability and Data Analysis

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of probability and data analysis	Organize and display data from statistical investigations.

Performance Indicators		
1. Use appropriate tables, graphs and/or charts.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.F.2

Strand: Probability and Data Analysis

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of probability and data analysis	Extract, interpret, and analyze information from organized and displayed data.

Performance Indicators		
1. Use central tendencies of data (mean, median, mode and range).		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.F.3

Strand: Probability and Data Analysis

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of probability and data analysis	Use the results of data analysis.

Performance Indicators		
<ol style="list-style-type: none"> 1. Make predictions. 2. Develop convincing arguments. 3. Draws conclusions. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.F.4

Strand: Probability and Data Analysis

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced concepts of probability and data analysis	Determine the likelihood of occurrence of simple events.

Performance Indicators		
1. Apply theoretical notions of probability (that four equally likely events have a 25% chance of happening).		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.1

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Work with algebraic expressions in a variety of ways.

Performance Indicators		
1. Evaluate expressions through numerical substitution of whole numbers.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.2

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Use the vocabulary, symbols, and notation of algebra accurately.

Performance Indicators
<ol style="list-style-type: none"> 1. Use the “=” symbol correctly. 2. Use effectively the Associative Property of Multiplication.

Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.3

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Work with simple linear patterns and relationships in a variety of ways.

Performance Indicators		
<ol style="list-style-type: none"> 1. Recognize and extend number patterns. 2. Describe patterns verbally. 3. Represent patterns with pictures, tables, charts, and graphs. 4. Recognize that different models can represent same pattern or relationship. 5. Use patterns to describe real-world phenomena. 		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.4

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Recognize variability in simple functional relationships by describing how a change in one quantity can produce a change in another.

Performance Indicators		
1. Describe how change can produce change.		
Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.5

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Use simple equations and inequalities in a variety of ways.

Performance Indicators
<ol style="list-style-type: none"> 1. Use equations and inequalities to represent problem situations. 2. Solve equations and inequalities by different methods. 3. Record and describe solution strategies.

Suggested Activities	Assessment	Resources

Diocese of Jefferson City Curriculum Guide

Content Area: Math
 Grade Range: Fifth
 Section/Heading: 5.G.6

Strand: Functions and Algebra

Diocesan Standard Terra Nova Objective	Benchmark Statement
Understand and apply basic and advanced properties of functions and algebra	Recognize and use generalized properties and relationships of arithmetic.

Performance Indicators		
1. Use Commutative, Associative, Distributive, Identity and Zero Properties of arithmetic.		
Suggested Activities	Assessment	Resources