Curriculum Guide for Pre-Algebra

Unit 1: Variable, Expressions, & Integers

2 Weeks

PA: 1, 2, 3, 9

Objectives	Methods	Resources	Assessment
The students will 1. write and evaluate variable expressions 2. perform operations with integers 3. plot points in a coordinate plane	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Chapter test

Curriculum Guide for Pre-Algebra

Unit 2: Solving Equations

3 Weeks

PA: 1, 2, 3, 4, 9

Objectives	Methods	Resources	Assessment
The students will 1. use mathematical properties to simplify variable expressions 2. write and solve one-step equations 3. perform operations with positive and negative decimals	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 3: Multi-Step Equations and Inequalities

3½ Weeks

PA: 1, 2, 3, 9

Objectives	Methods	Resources	Assessment
The students will 1. write and solve multi-step equations 2. write and solve inequalities	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 4: Factors, Fractions, and Exponents

3 Weeks

PA; 1, 2, 3, 4, 9

Objectives	Methods	Resources	Assessment
The students will 1. find greatest common factors 2. find least common multiples 3. identify equivalent fractions 4. write fractions in simplest form 5. use rules of exponents 6. use scientific notation	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 5: Rational Numbers and Equations

2½ Weeks

PA: 1, 2, 3, 4, 9

Objectives	Methods	Resources	Assessment
The students will 1. write fractions as decimals 2. write decimals as fractions 3. perform operations with fractions and mixed numbers 4. solve equations with rational numbers 5. solve inequalities with rational numbers	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 6: Ratio, Proportion, and Probability

3 Weeks

PA: 1, 2, 3, 5, 8, 9

Objectives	Methods	Resources	Assessment
The students will 1. write and compare ratios and rates 2. write and solve proportions 3. find theoretical probabilities 4. find experimental probabilities	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 7: Percents

3½ Weeks

PA: 1, 2, 3, 4, 9

Objectives	Methods	Resources	Assessment
The students will 1. find and use equivalent decimals, fractions, and percents 2. use proportions and the percent equation to solve percent problems 3. solve problems involving percent of change	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 8: Linear Functions

4 Weeks

PA: 1, 2, 6, 9

Objectives	Methods	Resources	Assessment
The students will 1. represent and interpret relations and functions 2. write and graph linear equations in two variables 3. write and graph linear systems 4. write and graph linear inequalities	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 9: Real Numbers and Right Triangles

2 Lessons

PA: 1, 2, 3, 7, 9

Objectives	Methods	Resources	Assessment
The students will 1. use square roots to solve problems 2. use the Pythagorean theorem to solve problems 3. identify rational and irrational numbers ***4. use special right triangles to solve problems*** 5. ***use trigonometric ratios to solve problems***	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 10: Measurement, Area and Volume

2 Weeks

PA: 1, 2, 7, 9

Objectives	Methods	Resources	Assessment
The students will 1. find angle measures and side lengths of triangles 2. find angle measure and side lengths of quadrilaterals 3. find the area of parallelograms 4. find the area of trapezoids 5. find the area of circles ***6. find the surface areas of prisms, cylinders, pyramids and cones*** ***7. find the volumes of prisms, cylinders, pyramids, and cones***	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 11: Data Analysis and Probability

2 Weeks

PA: 1, 2, 5, 9

Objectives	Methods	Resources	Assessment
The students will 1. make and interpret data displays ***2. conduct surveys and analyze survey results*** 3. calculate probabilities of events	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 12: Polynomials and Nonlinear Functions

3 Weeks

PA: 1, 2, 3, 9

Objectives	Methods	Resources	Assessment
The students will 1. add polynomials 2. subtract polynomials 3. multiply polynomials ***4. evaluate powers of products, quotients, and powers*** ***5. graph quadratic functions*** ***6. graph exponential functions***	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Curriculum Guide for Pre-Algebra

Unit 13: Angle Relationships and Transformations

1 Weeks

PA: 1, 2, 7, 9

Objectives	Methods	Resources	Assessment
The students will ***1. identify special pairs of angles*** ***2. find the measures of special angles*** ***3. find the measures of interior and exterior angles of polygons*** 4. translate, reflect, rotate, and dilate geometric figures	• teacher lecture • teacher working examples on the board • teacher showing problems on overhead projector • student guided practice of problems in book • student taking notes • cooperative learning groups • individual assistance • partner work • worksheets • homework	• Pre-Algebra, McDougal Littell, 2005 • Algebra with Pizzazz!, Books A, B, C, and D, Creative Publications, 1989 • Practical Strategies for Strengthening Your Students' Learning of Algebra Concepts (Grades 7-12), Bureau of Education & Research, 2007 • Manipulatives • Posters	• Completion of homework • Board work • Participation in class activities • Answering questions during class work • Quizzes • Notebook quizzes • Speed drills • Mid-chapter test • Final test

Objectives that are in italics and bold are available in the current text book but not covered in class.

Chapter 9 – #4, 5

Chapter 10 - #6, 7

Chapter 11 - #2

Chapter 12 - #4, 5, 6

Chapter 13 - #1, 2, 3