

Overview of Garden Approach Content (Page 1)

- @ **Traditional Math uses a Linear Approach while Garden Math uses a Non-Linear Approach @**
- @ **Garden Approach advocates Traditional Math while structured around Standards Math @**
- @ **Curriculums and Schedules of Today's Teachers requires an effective & efficient approach @**

Describe Basic Concepts: W,D,F,M,E,R,P,P with simple **Definition(s)** supported with **Example(s)**.

Students using current textbooks will locate concepts **then** read and write on required concepts.

Student Teams (Leader & Members) collaborate with all sorts of **communication** (Read, Write, Talk)
Communication & connections while representing concepts in their own comfort zone!

Computation with All Number Types: Students are **responsible** to **Grade, Correct, Collaborate !!!**

Teacher(s) select from **A,B,C,D** activities to **assess then** also **assess** from **E,F,G,H** activities.

Students, Teachers and Parents will view **Garden Approach Videos on Computation & Concepts**
thus working together in a **united collaborative effort** to provide a **21st Century Math learning.**

Numbers & Operations

Whole Numbers

Addition, Subtraction, Multiplication, Division, Place Value (Large & Small), Reading & Writing
Times Table Facts, Rows & Columns Facts, Calculator (Binary) Operations with A, S, M, D, Es, Rs
Expand & Exponent Notation, Scientific Notation, Rounding & Estimating, Comparing & Ranking
Ratios: 2/3, 2 to 3, 2:3, Proportion: Equal Ratios Percents: Simple Ratio, Percentages to Proportions,
Factors & Multiples, Counting & Whole, Even & Odd, Prime & Composite, Order of Operations
Carry & Borrow with A,S,M,D, Numeral (Number), Relations, Operations, Properties: C,C,A,I,I,D
Integers (Signed): A, S, M, D, Absolute Value, Natural, Integers, Rational, Real Number Systems.

Decimal Numbers

Fraction Numbers

Addition, Subtraction, Multiplication, Division, Multiples & Factors, Common Multiple, LCM & LCD
Numerator & Denominator, Types of Fractions (P&I), Reduce & Raise, Change I to M & Change M to I
Change: Fs to Ds, Ds to Fs, & Fs to Ps, Ps to Fs, & Ds to Ps, Ps to Ds, Number Line Placement

Mixed Numbers

Exponent Numbers

BEN: Base, Exponent, Number,

Use Sequences & Patterns to Understand

Radical Numbers

Radical, Radicand, Root,

Reinforcement of Multiplication Facts

$4^3 = 64$ $4^2 = 16$ $4^1 = 4$ $4^0 = 1$ $\sqrt{1}$ to $\sqrt{100}$ & $\sqrt{121}$ to $\sqrt{1000}$
Binary Addition, Subtraction, Multiplication, Division, with both **Exponents & Radicals**

Proportions

Definition & Example(s) of Ratio

Determine Missing Part: W to X = Y to Z
Increase in Difficulty with Levels 1,2,3

Percentages

Definition & Example(s) of Percents

Change Percentage to Proportion
Increase in Difficulty with Levels 1,2,3

@ **Applications (Word Problems) permeate all levels of Numbers also all topics of Non-Numbers. @**

Overview of Garden Math Content (Page 2)

**Overall thematic theme is Problem Solving, Reasoning & Proof, Representation of Concepts
Connection among Abstract & Concrete, Communication & Collaboration with Peers**

Geometry

**Study of Shapes and their relationships Draw, Name, Describe via properties 2D & 3D shapes
Categorize or Classify 2D & 3D by their properties Investigate combining & dividing 2D & 3D
Explore Similarity & Congruence of 2D & 3D shapes Make Conjectures & Reasoning with Logic
Open & Closed, Concave & Convex, Similarity & Congruence Special Angles: Triangles & Lines**

Algebra

**Identify, Name, Describe Elements of Algebra Analyze & use Patterns & Sequences to explain
Understand & use Tables and Graphs to describe Usage of words to describe values & relationships
Identify Functions as Linear or Non-Linear (DR or IR) using Tables, Graphs and Equations
Evaluation of Expressions, Solutions for Equations & Inequalities and maybe some Not so Simple**

Data Analysis & Probability

**Collect, Organize & Display Data using Tables & Charts Create & Answer Questions about Data
Categorize & Classify Data as to Properties and Values Represent Data in Tables & Charts
Use Methods to describe & represent Data (M,M,M,R) Recognize Similarity & Differences Data
Probability & Odds of simple Experiments Use Reason & Logic to support Conjectures on Data**

Measurement

**Understand & use measures of Standard Units (English & Metric) Recognize attributes of Measures
Understand & Use instruments with Linear & Angular measures Be able to convert measures
Understand Measurement is an estimate! Precision & Accuracy Understand Percent of Error
Understand and Calculate: Perimeter, Area, Surface Area and Volume of 2D & 3D objects**

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