Suggestions and/or Directions for Implementing Extended Concept (3) Activities

Students will benefit from pencils with erasers, if possible since revisions are part of learning.

Students should be allowed to start on any page of these activities but try to keep on one page.

Students should use their existing and current textbook(s) as a literacy reference for concepts.

After completing Grouped Computation activities, students should assemble with team mates.

Individuals and teams investigate & collect definitions & examples for concepts, then discuss.

Students may revise their definitions and examples with improvement(s) after team discussion.

As teachers mingle among teams collaborating on definitions & examples, they should facilitate

learning by challenging students to complete their assignments by using textbooks and each other.

Usually, stronger students finish first and they can revise their assignments with little or no help

then as more challenged students finish, team leaders should discuss & revise with team mates.

These collaborative teams should be carefully selected with a strong student as leader and

there should not be more than 2 or 3 students in a collaborative team. Leader & team mates!

Team Leaders should assist challenged students with revising and/or improving assignments.

If not enough students are strong enough to be leaders then challenged work with challenged?

Teachers mingle around classroom, when asked about a concept, suggest team mate's answer!

If all of the team mates can not answer the question(s) then back to the textbook for more work.

This will naturally and at first be a challenging and frustrating assignment however be persistent!

This creates an atmosphere of students helping students & teachers facilitating concept activities.

Completing, Discussing Activities, Revising Concepts, and Collaborating might need (2) periods.

If any students want to take an assignment home then suggest waiting until team decides on results.

Students may want to do them at home since parents will help or complete definitions & examples

but only allow Parents involvement after the Team together has a chance to complete assignments!

    Computational Activities alternate daily with Conceptual Activities.   Every other Day!

Learning concepts is traditionally attempted with workbook exercises, classroom manipulatives,

WWW exercises and manipulatives! Why not a "**Literacy Approach**" along with all the above?

Advanced Numbers * Extended Concepts 3 A
Definitions should be re-stated or paraphrased textbook definitions not word for word!
After completing Basic Knowledge Activities,   Collaborate with classmates,   Provide or Receive Help!
Real & Virtual Manipulatives assist in achieving knowledge for Concepts & Computation!

1. Define & provide an example(s) of Counting & Whole Numbers (Note Sets within Sets).   Use PP to review!
    Mark Even & Odd Numbers within Whole Numbers!   Mark Prime & Composite with in Counting Numbers!

2. Define & provide an example(s) of Sets of Proper Fractions and Sets of Improper Fractions!   Use PP to review!
        Provide at least (4) examples in each set!   Include concepts of Increasing & Decreasing!

3. Define & Provide an example(s) of a Numbers (Ideas) and Numerals (Symbols)!   Use PP to review!
        What would be Numbers (Ideas) for Fractions & Decimals!   Circles & Rectangles could represent them!

4. Define & Provide example(s) of Mixed Numbers as Numbers (Ideas)!   Use PP to review!
        What would be Numbers (Ideas) for Mixed Numbers!   Circles & Rectangles could represent them!

5. Define & Provide example(s) of Decimals & Mixed Decimals as Numbers (Ideas)!   Use PP to review!
        What would be Numbers (Ideas) for Decimal Numbers!   Bars & Charts could represent them!

6. Define & Provide example(s) of Integers (Signed Numbers) as Numbers (Ideas)!   Use PP to review!
        What would be Numbers (Ideas) for Signed Numbers!   Bars & Charts could represent them!

7. Define & Provide example(s) of Real Numbers (Rational & Irrational) as Numbers (Ideas)!   Use PP to review!
        What would be Numbers (Ideas) for Real Numbers!   Number Line(s) could represent them!

8. Define & Provide examples of Powers of Ten as Numbers (Ideas)!   Use PP to review!
        What would be Numbers (Ideas) for Real Numbers!   Number Line(s) could represent them?

Advanced Numbers * Extended Concepts 3 B
Definitions should be re-stated or paraphrased textbook definitions not word for word!
After completing Basic Knowledge Activities,   Collaborate with classmates,   Provide or Receive Help!
Real & Virtual Manipulatives assist in achieving knowledge for Concepts & Computation!

1. Define and provide (4) examples for Whole Numbers changed to Fractionss!   Use PP to review!

2. Define and provide (4) examples for Fractions changed to Decimals!   Use PP to review!

3. Define and provide (4) examples forDecimals changed to Fractions!   Use PP to review!

4. Define and provide (4) examples for Percents as Decimals & Fractions!   Use PP to review!

5. Define and provide (4) examples for Decimals & Fractions as Percents!   Use PP to review!

6. Define & provide example(s) of a Factors for (24) and (36)!   Use PP to review!

7. Define & provide example(s) of a Multiples for (3) and (7)!   Use PP to review!

8. Define & provide example(s) of a LCD for (2/3) & (4/7) for Addition & Subtraction!   Use PP to review!

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Advanced Numbers * Extended Concepts 3 C
Definitions should be re-stated or paraphrased <u>textbook</u> definitions <u>not</u> word for word!
After completing Basic Knowledge Activities,   Collaborate with classmates,   Provide or Receive Help!
Real & Virtual Manipulatives assist in achieving knowledge for Concepts & Computation!

1. Define & provide examples of Exponents of 0,1,2,3 with Decimals and Fractions!   Use PP to review!
    Provide (4) for Decimals and (4) for Fractions!

2. Define & provide examples of Extended Radicals with Decimals and Fractions!   Use PP to review!
    Provide (4) for Decimals and (4) for Fractions!

3. Define & provide (1) comprehensive example of Order of Operations!   Use PP to review!

4. Define & provide (1) comprehensive example of Order of Operations!   Use PP to review!

5. Define & provide examples of Whole, Decimal, Fraction, Mixed, Exponent, Radical   Extra for Experts!
    Proportion, Percent, Factor, Multiple, etc…   Using One Look Dictionary!   www.onelook.com

6. Provide Names and comments on Math Dictionaries found by One Look Dicitonary!   Extra for Experts!
    Note: One Look Dictionary locates other dictionaries on the WWW not definitions!

7. Define & provide examples of Mathematics, Arithmetic, Algebra, Geometry, Calculus!   Extra for Experts!
    Using either Wikipedia: www.wikipedia.org (or) Love to Know: www.1911encyclopedia.org

8. Define & provide examples of useful information found at   Extra for Experts!
    The Single Best Source of Facts on the WWW: www.refdesk.com

Beginning Numbers * Extended Concepts 3 D
Definitions should be re-stated or paraphrased textbook definitions not word for word!
After completing Conceptual Activities, Students gather in Teams and Collaborate!   Provide or Receive Help!
These Conceptual Activities can be done Individual or in Collaborative Teams! But always supervised!

1. Define and provide an example of a number and a numeral!   Augments computation!

2. Define and provide an example for proper and improper fractions.   Augments computation!

3. Define and provide an example for simple and mixed decimal.   Augments computation!

4. Define and provide an example(s) for Fraction(s), N&D, P&I, Mixed Number.   Augments computation!

5. Define & provide example of of exponents 0 to 3 as in Beginning Numbers 1   Augments computation!

6. Define & provide examples of any four simple radicals as in Beginning Numbers 1.   Augments computation!

7. Define & provide an example of a proportion and apply The Law for Proportions!   Augments computation!

8. Define & provide an example of a percentage then change to a proportion & solve!   Augments computation!