Big Ideas for Each Grade (given what is left of the year)

Choose first what you have NOT done.

Then reinforce what you have already introduced.

Then maybe other stuff (but doubt if there is time).

Pocesses- reasoning, problem solving, communication

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| Grade | Topics | Essential Ideas |
| 1 | -Adding and Subtracting; -Representing Numbers;  | -When do you add; subtract?; strategies-What do numbers to 50 mean and look like? |
| 2 | -Adding and Subtracting-Representing Numbers-Growing Patterns | -When do you add, subtract?; strategies-mental- What do numbers to 100 mean and look like?- predicting how patterns continue |
| 3 | -Multiplication and Division-Comparing Numbers-Fractions-Measurement | - What do they mean? How do you model?- Who is bigger? Why?- What do they mean? How are differe meanings related?- What can you measure? What is the same about all measurements? |
| 4 | -Multiplication and Division-Comparing Fractions-Representing Numbers-Graphs | - What do they mean?; strategies; facts- How can you compare mentally (rather than procedurally)?- place value ideas- how to interpret |
| 5 | -Decimals-The Rectangle-Multiplication and division | - What are they? How do you operate with them like you do with whole numbers?-measurement formulas associated with perimeter and area-Strategies for working with larger numbers |
| 6 | - Ratio and Percent- Interpreting Decimals beyond Hundredths- Cartesian Grid- Using Variables- Area Formulas | - What are they? How do you estimate?- What are they?- How do you locate?- What different things does an equation mean? a variable?- Areas of triangles and parallelograms |
| 7 | -Factors and Multiples- Integer + and - - Percent- Algebra- Fraction + and -  | -How do they relate? How can you predict or tell?- What’s different and the same as with whole numbers?-Problems/calculations involving percent-Interpreting meaning of expressions-Models |
| 8 | -Integer x and ÷- Proportions- Fraction x and ÷ (?)- Circle Measurement- Pythagorus | - Why the sign laws work--Problems/calculations involving percent- Modelling and meaning - Relationships-The theorem and what square and square root are |
| 9 academic | - Linear Relations- Volume/Surface Area | - what makes something linear; rate of change- estimating; comparing; knowing what measurements tell you what |
| 9 applied | - Proportion work- Linear Relations- Volume/Surface Area | - solving problems involving proportions- what makes something linear; rate of change/slope- estimating; comparing; knowing what measurements tell you what |
| 10 acade | - Quadratics- Systems of Equations-Trig | - what makes something quadratic; relationships between representations- strategies for solving and what a solution means- what are the ratios and how are they useful or not |
| 10 applied | - Quadratics- Systems of Equations-Trig | - what makes something quadratic; relationships between representations- strategies for solving and what a solution means- what are the ratios and how are they useful or not |