Themes: Matching Numerical Expressions

Curriculum Area: Math

Writing and interpreting numerical expressions is essential because when reading real- world problems that involve setting up the expression's students will clearly understand what keywords to look for when creating an expression. An example of this is when a problem states, "add 8 and 7 , then multiply by 2 " students should be able to interpret the numerical expression as $2 \times(8+7)$ and have a clear understating of where to put parentheses, brackets, or braces. Numerical expressions get more intricate as the student moves onto higher-level math, so they need to know how to express the calculation of a numerical expression.

Ages of Children: $5^{\text {th }}$ Grade (9-11 years of age)

## Materials Needed:

- Color Pencils
- Pencil/Eraser
- White Printer Paper ( 8 x 11 ) as scratch paper
- Worksheet that is provided for the activity at the end of this sheet.

Developmental Objectives/Domains: By participating in this activity, children will:

1. Learn to use parentheses, brackets, or braces in numerical expression, and evaluate expressions with these symbols.
2. Develop and write simple expressions that record calculations with numbers and interpret numerical expressions without evaluating them.
3. Understand key words that are essential when recognizing how to interpret the numerical expression.
4. Enhance cognitive development by allowing students to develop knowledge of how to decipher a numerical expression or create one.

## Procedure:

1. Review how to write and express a numerical expression without having to evaluate them.
2. Watch the video about Numerical Expressions.
3. Discuss how to complete the Matching Numerical Expressions worksheet.
4. Look over the worksheet and review which ones need further clarification.

## References:

- https://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf
- https://www.teacherspayteachers.com/Product/Matching-Numerical-Expressions-FREEBIE-Worksheet-5th-Grade-5OAA2-4556426

| One half the <br> sum of nine <br> and three. | Add half of <br> twelve to the <br> product of <br> five and three. | The quotient <br> of twenty and <br> two. | Yellow <br> $(12 \times 5) \div(4+6)$ | Two times the <br> difference of <br> six and two. |
| :---: | :---: | :---: | :---: | :---: |
| Green <br> $7 \times 4+10$ | Black <br> $(9+8) \times 3$ | Freebie (Color <br> in whatever <br> color you'd <br> like in this <br> square. $)$ | Blue <br> $(15+3)-4$ | Twenty <br> divided by the <br> product of <br> five. |
| The quotient <br> of fifteen and <br> three minus <br> four. | Purple <br> $20 \div 5 \times 2$ | Red <br> $(9+3) \div 2$ | Triple the sum <br> of eight and <br> nine. | Orange <br> $20 \div 2$ |
| Pink <br> $(5 \times 3)+12 \div 2$ | Divide the <br> product of <br> twelve and <br> five by the <br> sum of four <br> and six. | Brown <br> $2 \times(6-2)$ | Seven times <br> four then add <br> ten. | Twelve added <br> the the product <br> of five and <br> three. |

Worksheet Directions: Match the numerical expression with its written form by coloring matching squares with the color that is assigned to the numerical expression in bold. Don't shade in too dark because you still want to see it! Link to answers.

## Scratch Paper

