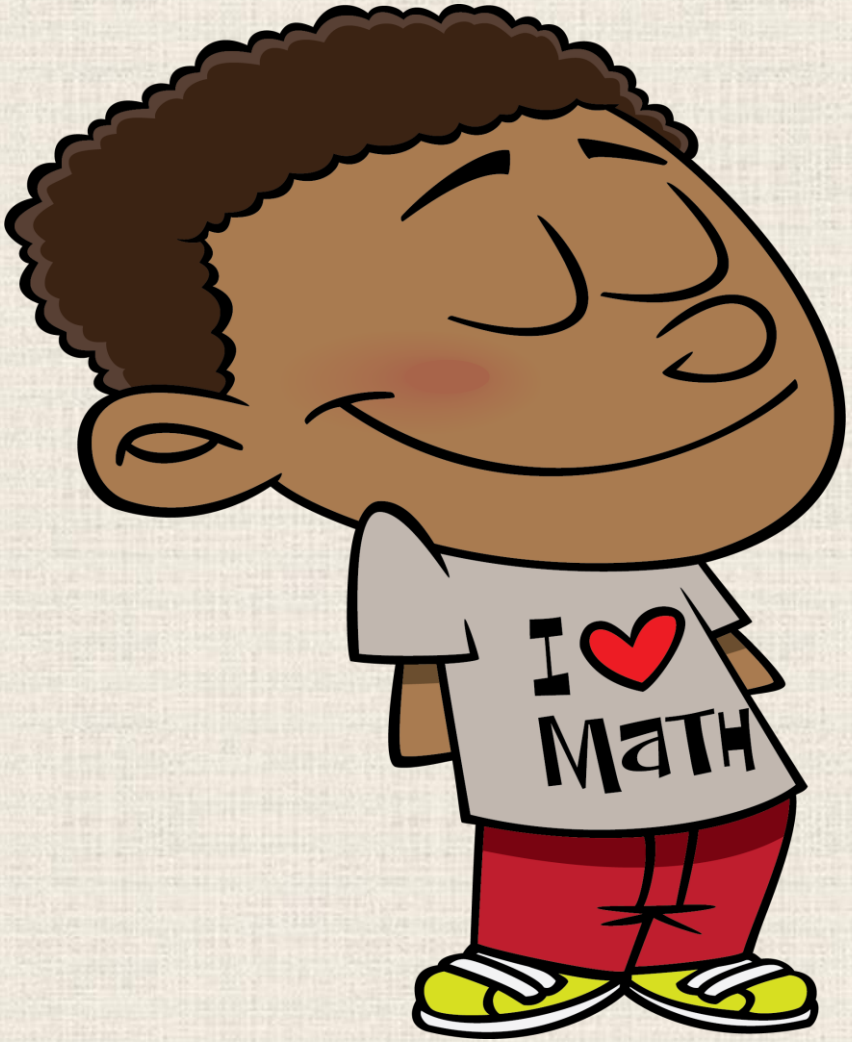
Multiples & Factors

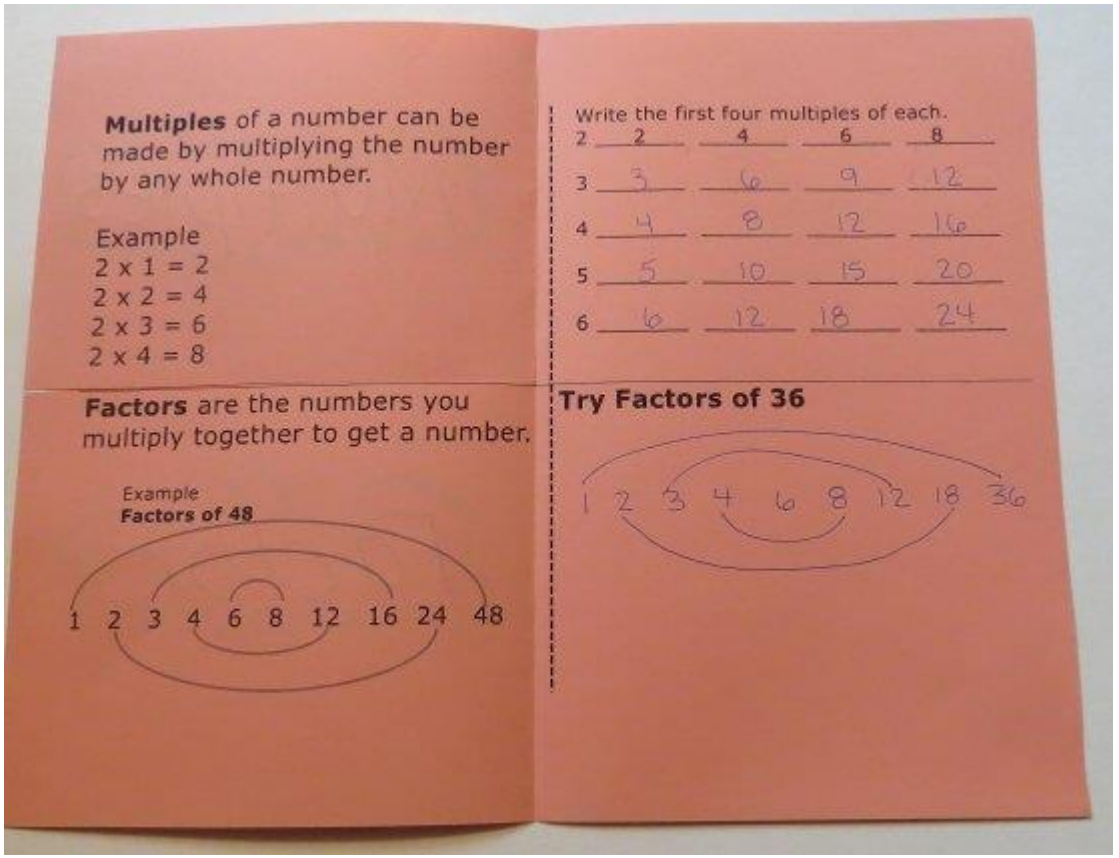


Organizer #1 Multiples vs Factors

Instructions for Completing the Organizer:

1. Print the organizer onto colored paper.
2. Trim the edges.
3. Fold on the dotted line.
4. Cut on the solid lines between flaps up to the dotted fold line.
5. Have students fill in missing information.

The graphic organizers will fit into an interactive notebook after the edges are trimmed.



Multiples of a number can be made by multiplying the number by any whole number.

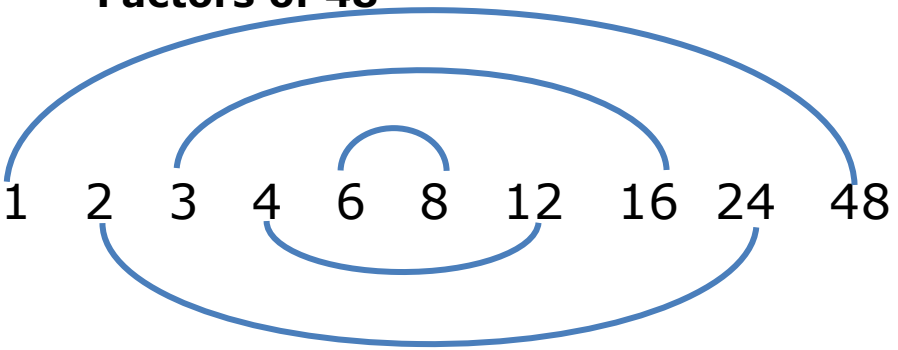
Example
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8

Write the first four multiples of each.

2	2	4	6	8
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____

Factors are the numbers you multiply together to get a number.

Example
Factors of 48



Try Factors of 36

Organizer #2

Instructions for Completing the Organizer:

1. Print the organizer onto colored paper.
2. Trim the edges.
3. Fold on the dotted line.
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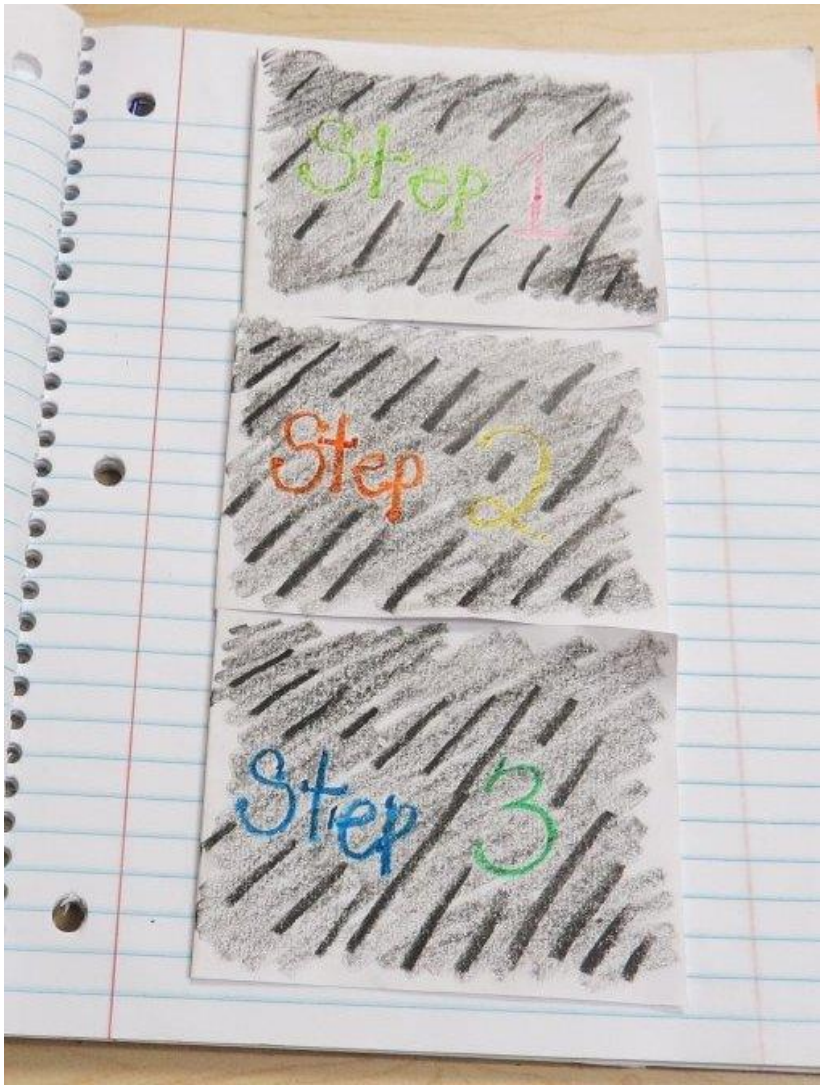
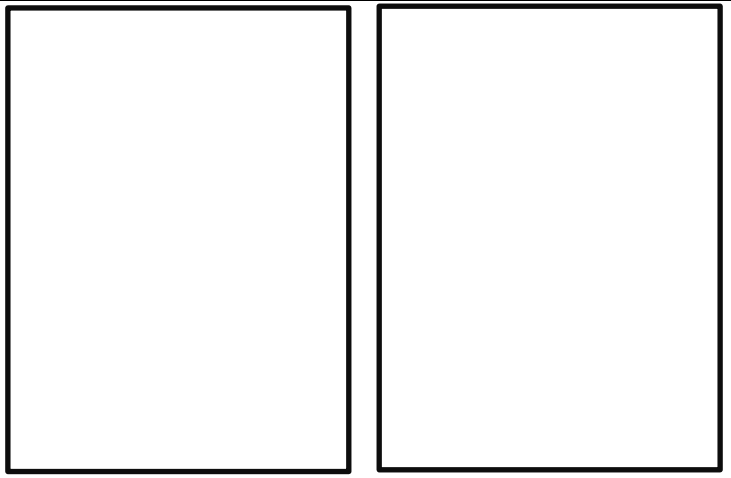


Step 1
Create factor trees. When the factor trees are complete write the prime factorization of each number by writing the products of the prime factors from least to greatest.

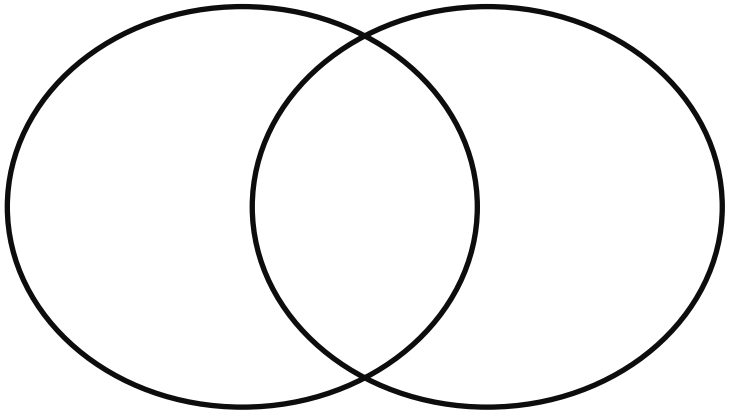
Divisibility Rules
A number is divisible by 2 if it ends in 0, 2, 4, 6, or 8. (An even number.)

A number is divisible by 3 if the sum of its digits is divisible by 3.

A number is divisible by 5 if it ends in 0 or 5.



Step 2
Create a Venn diagram with the prime factorizations.



Step 3
Multiply the numbers found in both prime factorizations (the common factors) to find the Greatest Common Factor (GCF).
[Hint: Factors ⟶ Few]

Multiply _____

The GCF = _____

Multiply all numbers on the Venn Diagram together to find the Least Common Multiple (LCM).
[Hint: Multiples ⟶ Many]

Multiply _____

The LCM = _____

Organizer #3 Least Common Multiples (LCM)

Instructions for Completing the Organizer:

1. Print the organizer onto colored paper.
2. Trim the edges.
3. Fold on the dotted line.
4. Have students fill in missing information.

The graphic organizers will fit into an interactive notebook after the edges are trimmed.

Least Common Multiples (LCM)

List some multiples of each number, and then circle the least (smallest) common multiple.

6 - _____

9 - _____

When adding 5/6 to 4/9 what would you use for a common denominator?

_____

Real World Example

Hotdogs come in packages of 10. Hotdog buns come in packages of 8. How many packages of hotdogs and hotdog buns would you need to purchase have the same amount of hotdogs and buns?

8 - _____

_____

Least Common Multiples (LCM)

Organizer #4 Greatest Common Factor

Instructions for Completing the Organizer:

1. Print the organizer onto colored paper.
2. Trim the edges.
3. Fold on the dotted line.
4. Have students fill in missing information.

The graphic organizers will fit into an interactive notebook after the edges are trimmed.

Greatest Common Factors (GCF)

List the factors of each number, and then circle the greatest (largest) common factor.

24 – _____

32 - _____

Simply this fraction.

$$\frac{24}{32} \quad \div \_\_\_\_\_ = \quad \div \_\_\_\_\_$$

FACTORS of Some Common Numbers

÷

4 – 1 2 4
6 – 1 3 6
8 – 1 2 4 8
9 – 1 3 9
10 – 1 2 5 10
12 – 1 2 3 4 6 12
14 – 1 2 7 14
15 – 1 3 5 15
16 – 1 2 4 8 16
18 – 1 2 3 6 9 18
24 – 1 2 3 4 6 8 12 24
28 – 1 2 4 7 14 28
30 – 1 2 3 5 6 10 15 30
32 – 1 2 4 8 16 32
36 – 1 2 3 4 6 8 12 18 36
40 - 1 2 4 5 8 10 20 40
42 – 1 2 3 6 7 14 21 42
48 – 1 2 3 4 6 8 12 16 24 48
56 – 1 2 4 7 8 14 28 56
60 – 1 2 3 4 5 6 10 12 15 20 30 60

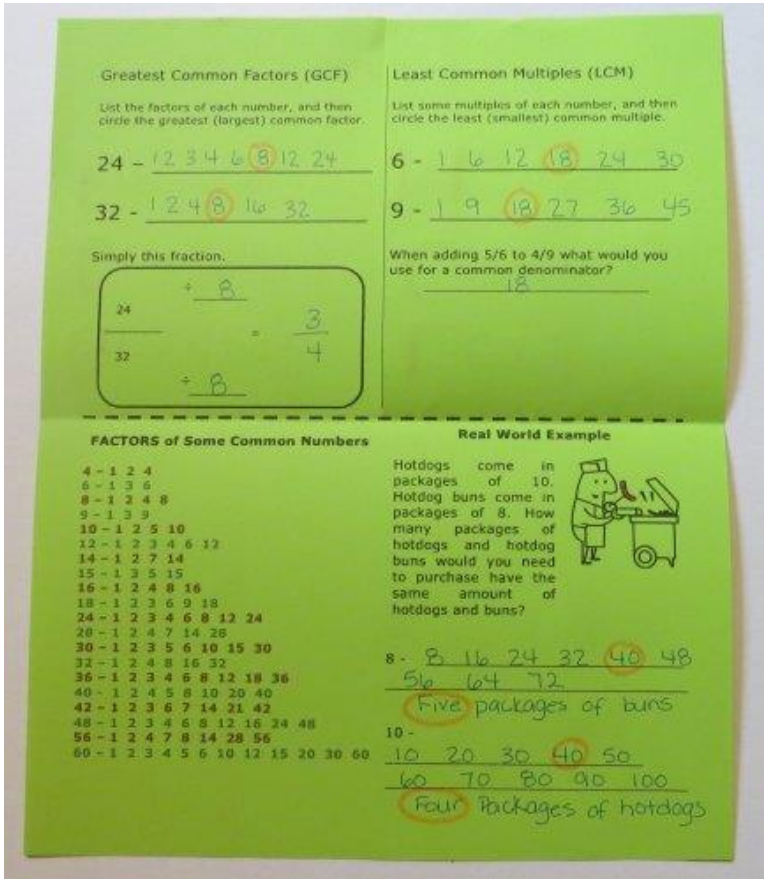
Greatest Common Factor (GCF)

Organizer #5 - Greatest Common Factors & Least Common Multiples

Instructions for Completing the Organizer:

1. Print the organizer onto colored paper.
2. Trim the edges.
3. Fold on the dotted line.
4. Cut on the solid lines between flaps up to the dotted fold line.
5. Have students fill in missing information.

The graphic organizers will fit into an interactive notebook after the edges are trimmed.



Greatest Common Factors (GCF)

List the factors of each number, and then circle the greatest (largest) common factor.

24 – _____

32 - _____

Simply this fraction.

$$\frac{24}{32} \div \frac{\_\_\_\_}{\_\_\_\_} = \frac{\_\_\_\_}{\_\_\_\_} \div \frac{\_\_\_\_}{\_\_\_\_}$$

Least Common Multiples (LCM)

List some multiples of each number, and then circle the least (smallest) common multiple.

6 - _____

9 - _____

When adding 5/6 to 4/9 what would you use for a common denominator?

_____

FACTORS of Some Common Numbers

4 – 1 2 4
6 – 1 3 6
8 – 1 2 4 8
9 – 1 3 9
10 – 1 2 5 10
12 – 1 2 3 4 6 12
14 – 1 2 7 14
15 – 1 3 5 15
16 – 1 2 4 8 16
18 – 1 2 3 6 9 18
24 – 1 2 3 4 6 8 12 24
28 – 1 2 4 7 14 28
30 – 1 2 3 5 6 10 15 30
32 – 1 2 4 8 16 32
36 – 1 2 3 4 6 8 12 18 36
40 - 1 2 4 5 8 10 20 40
42 – 1 2 3 6 7 14 21 42
48 – 1 2 3 4 6 8 12 16 24 48
56 – 1 2 4 7 8 14 28 56
60 – 1 2 3 4 5 6 10 12 15 20 30 60

Real World Example

Hotdogs come in packages of 10. Hotdog buns come in packages of 8. How many packages of hotdogs and hotdog buns would you need to purchase have the same amount of hotdogs and buns?

8 - _____

_____

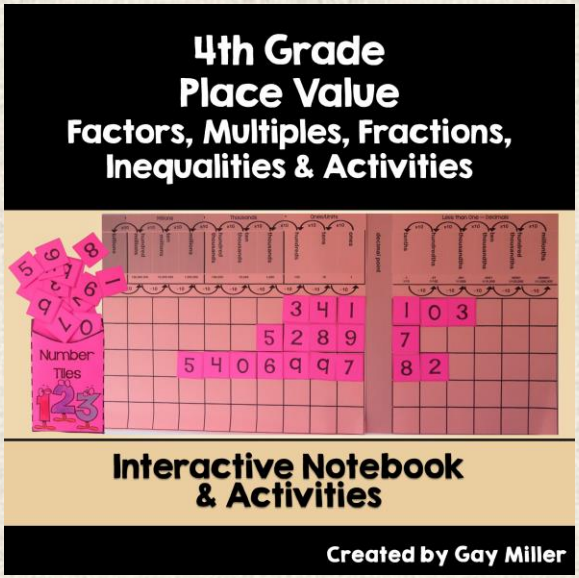
I need to buy _____ packages of buns.

10 - _____

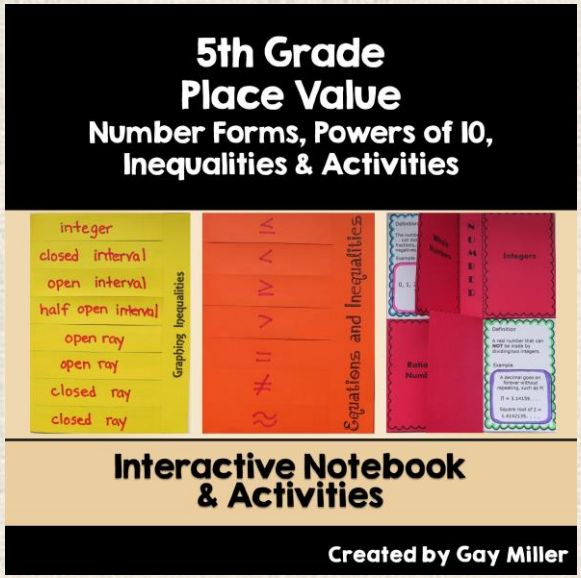
_____

I need to buy _____ packages of hotdogs.

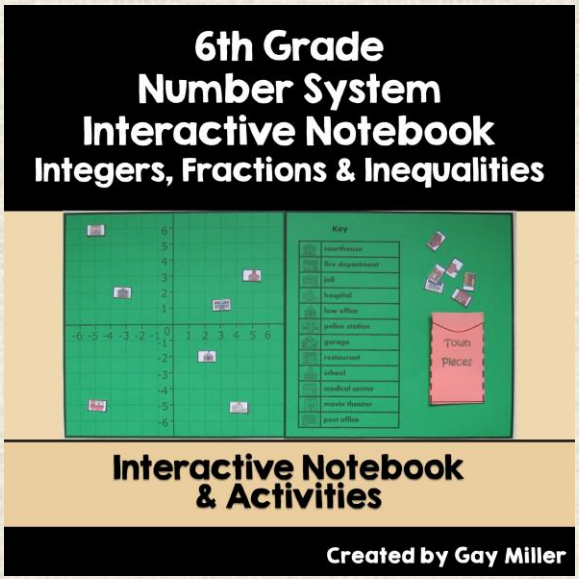
Check out this math resource on TPT.



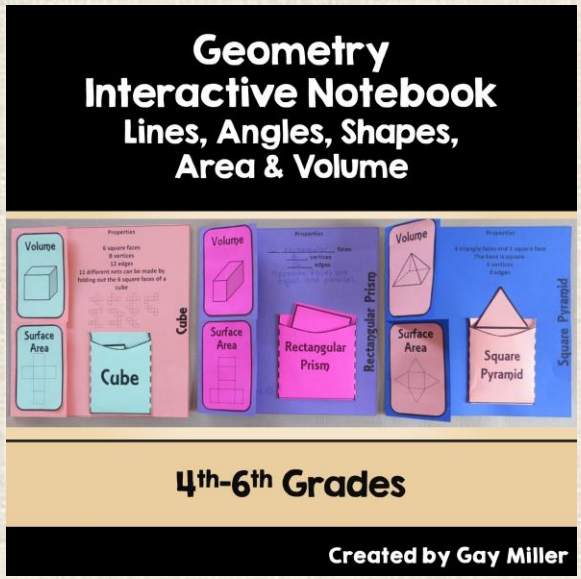
[4th Grade Place Value Factors, Multiples, Fractions, Inequalities & Activities]



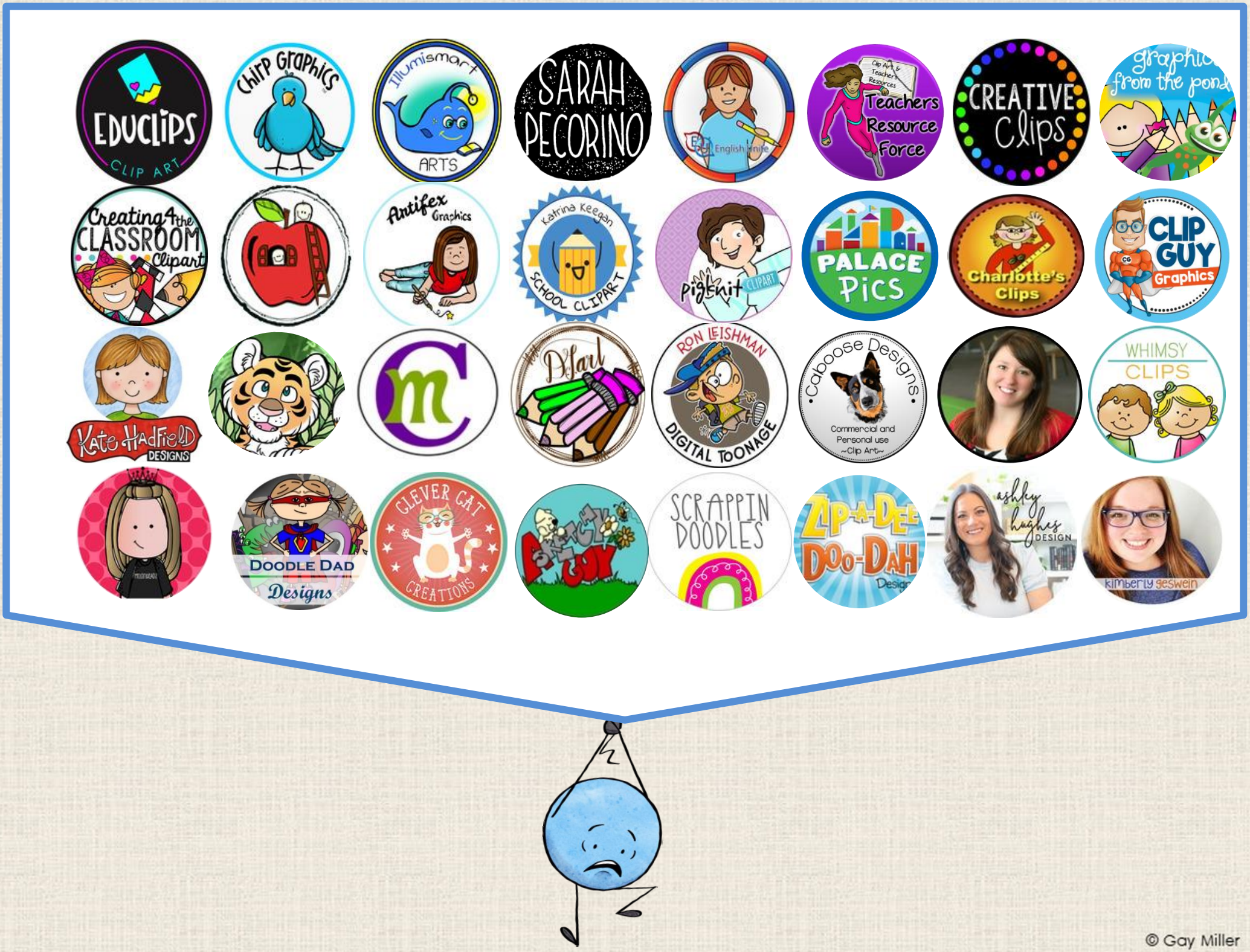
[5th Grade Place Value Number Forms, Powers of 10, Inequalities & Activities]



[6th Grade Number System Interactive Notebook Integers,]



[Geometry Interactive Notebook Lines, Angles, Shapes, Area & Volume (4th–6th)]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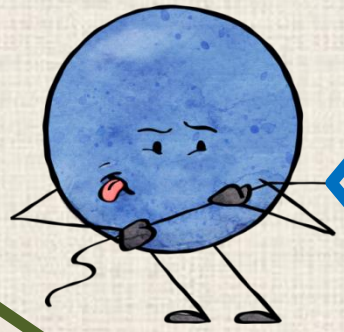

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