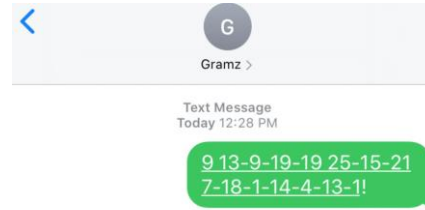


Secret Language

Text Messages in Code!



Wouldn't it be cool to create your own secret language? Well, this activity will teach you how to do just that out of numbers! You will learn how to create an equivalency number chart, and write and translate your own secret sentences.

Activity Challenge

Find the value of your name using an alphabet and number equivalency chart. Create your own equivalency chart and send secret text messages to close friends and family members.

Preparation

1. Review the Materials Needed and gather materials.
2. Have the equivalency chart from the next page handy.

To Do

1. Estimate the value of your name using the Values of Letters Equivalency Chart from the next page.
2. Using pencil and paper, calculate the actual value of your own name.
3. Write down a name of a family member, and find the value of your family member's name.
4. Using the Values of Letters Chart, decode the following sentence:

$$\begin{array}{cccccccc} _ & _ & _ & _ & _ & _ & _ & _ \\ 9 & 12 & 15 & 22 & 5 & 13 & 1 & 20 & 8 \end{array}!$$

5. Create your own sentence using the Values of Letters Equivalency Chart.
6. Create your own equivalency chart (see chart on last page).
7. Find the value of common sentences such as 'What you doing?' or 'I miss you'. Create a common sentence equivalency chart so that text messaging can be simpler with your new language.
8. Share your secret language with a close family member or friend. Send text messages to your family member or friend using your new number language.

Materials Needed

- Pen or pencil
- Paper
- Electronic Device (phone, laptop, computer, etc.)

Grade Range

3-5
6-8

Topics/Skills

Math: Place Value; Base Ten Numerals; Addition; Symbols; Sentence Construct

Learning Standards

CCSS Math: [Number & Operations in Base Ten](#)
CCSS ELA: [Production and Distribution of Writing](#)
[Computer Science Standards](#)

Duration

20 – 30 minutes

Prep Time

5 minutes

Observations

How do you think your estimate will compare to the actual value of your name? Will it be more or less? Why do you think that? Why do some people have names of the same length but different values? What does value mean?

Extensions

- Come up with at least 10 common phrases and add up their values. Have a verbal conversation with someone speaking only in numbers.

The Content behind the Activity

In this activity, students integrate language arts, math and technology to create their own language by coming up with different values for letters. In math, every digit in a number has a value. Place value is the value represented by a digit in a number on the basis of its position in a number. The idea of place value is at the heart of our number system. Zero was invented to hold the place for a specific value when no other digit goes in that place. For example, the number 200 in words means two hundred, no tens and no ones. The development of solid understanding of place value is essential for the development of later concepts such as other arithmetic operations calculations arising from measurements and algebra.

Values of Letters Equivalency Chart

a = 1	g = 7	m = 13	s = 19	y = 25
b = 2	h = 8	n = 14	t = 20	z = 26
c = 3	i = 9	o = 15	u = 21	What you doing = 162
d = 4	j = 10	p = 16	v = 22	I miss you = 121
e = 5	k = 11	q = 17	w = 23	How are you = 131
f = 6	l = 12	r = 18	x = 24	I love you = 124

Create Your Own Equivalency Chart

a =	g =	m =	s =	y =
b =	h =	n =	t =	z =
c =	i =	o =	u =	What you doing =
d =	j =	p =	v =	I miss you =
e =	k =	q =	w =	How are you =
f =	l =	r =	x =	I love you =