Communication Progress

TECHNOLOGY

New inventions and innovations have changed the way we communicate.

Sometimes, the person most associated with a particular invention was not the first to have the idea, but it was their work on that idea that had the most impact.

Activity

The 4 digits in the year 2005 can be used to make various equations, for example,

2 + 0 + 0 + 5 = 7; 5 x 2 x 0 − 0 = 0;

5 − 2 + 0 + 0 = 3.

1. With two classmates, use the four digits from one Communication Progress card to make expressions that equal each number from 0 to 9. Use each digit in the year once in each expression. You can add, subtract, multiply, or divide the digits.

> I should be able to make lots of expressions with these digits!

2 0 0 5

1876

Record your answers as equations (you may have some gaps). For example:

> Year: 1972
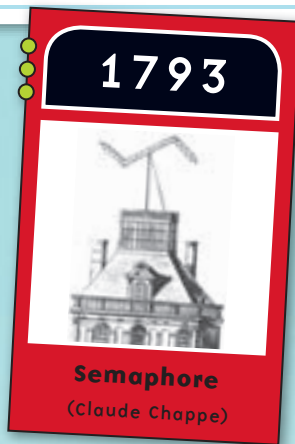> 0 = (9 − 7 − 2) x 1
> 1 = 2 − (9 − 7) + 1
> 2 =

An expression is a collection of numbers and symbols. An expression that includes an equals sign is known as an equation.

2. Share out the remaining cards. Working individually, repeat the process for each card.

3. **a.** Share your results with your two classmates. Were there any numbers that you couldn't find expressions for? See if your classmates can help!

b. For which years could you only make a few equations? Why?

With your two classmates, play as follows.

- Shuffle the invention cards and place them face down in a pile. Take 2 cards. Keep one and place the other upside down in front of the person on your left. (Use what you learnt from the **Activity** to decide which card to give away.)

- When each player has a card in front of them, pick up the card you have been given and take another one from the pile. You should now have 3 cards in your hand.

- Using any of your 3 cards, make one expression for each number from 0 to 9. Record your answers as equations (0 = _____).

- Set a time limit. The winner is the person who has made expressions for the most numbers when the time is up.

2007

Smart phone
Internet-multimedia-enabled smart phone

1876

Telephone
(Alexander Graham Bell)

1793

Semaphore
(Claude Chappe)

1973

Mobile phone
(Martin Cooper)

Focus   Using basic facts and exploring probability

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