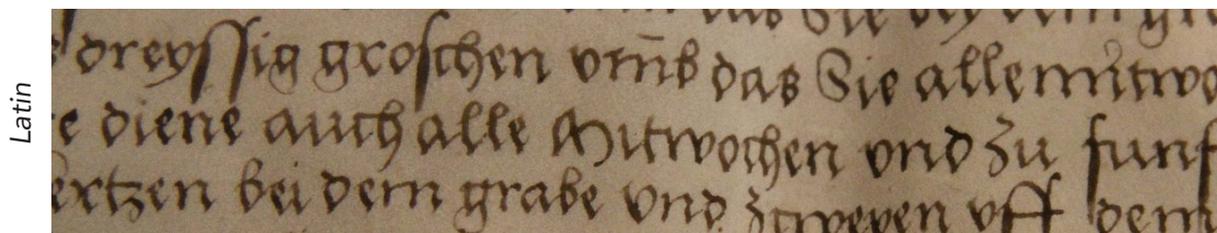
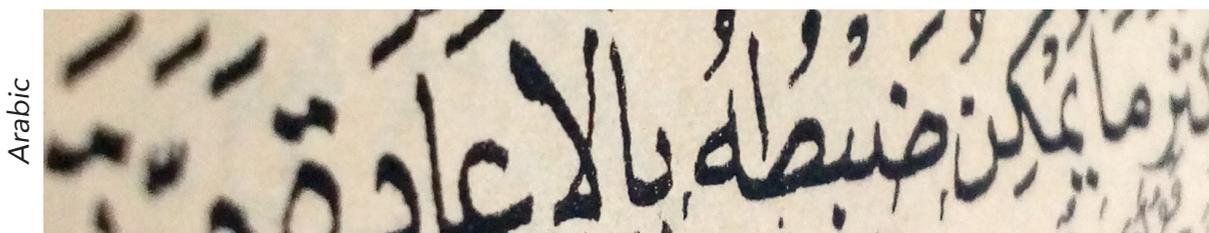
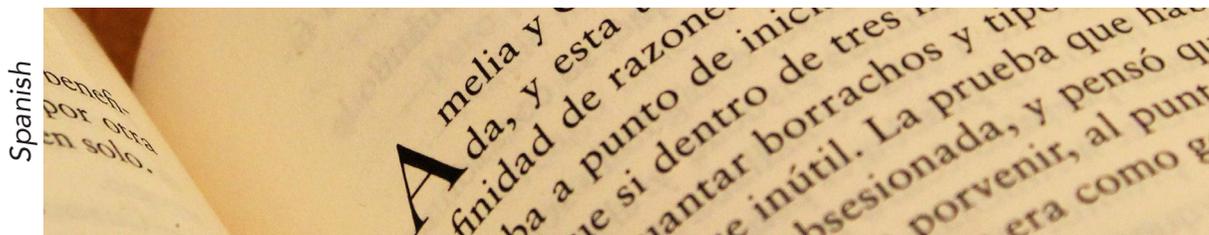


These pages are from the G4 "Patterns Can Transfer Information" journal.



We Communicate Through Patterns

When we talk or write, we communicate with patterns. A **pattern** is a specific arrangement of something. By assigning meanings to patterns, we can transfer information. Every book in the English language is written with the same 26 letters of the alphabet. These letters are arranged into patterns that make words and sentences. Patterns in written languages communicate information.



In order to understand a language you must understand the patterns that the letters make when arranged in different ways.

How do we use patterns to communicate with language?



Think,
Pair,
Share!

Letter pattern: s - t - a - r (star)

Meaning: A bright, luminous celestial object in the night sky.



Unscramble these letters "n-o-r-d-g-a".

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The stars in the night sky are beautiful to look at. We use a word made from a combination of four letters to represent a star—those letters are S - T - A - R.

When you put the letters s-t-a-r together, they make a specific pattern that you recognize. Although the pattern only consists of four letters, you associate those four letters with the actual stars that you see in the night sky. The English dictionary has about 171,000 words in it. Each word is a unique pattern of symbols that has a specific meaning. The letters used to spell star can also make other words if they are arranged into different patterns.

Scramble the letters s, t, a, and r into different patterns to make other words out of those same letters. How many words can you make?

1. _____

2. _____

3. _____

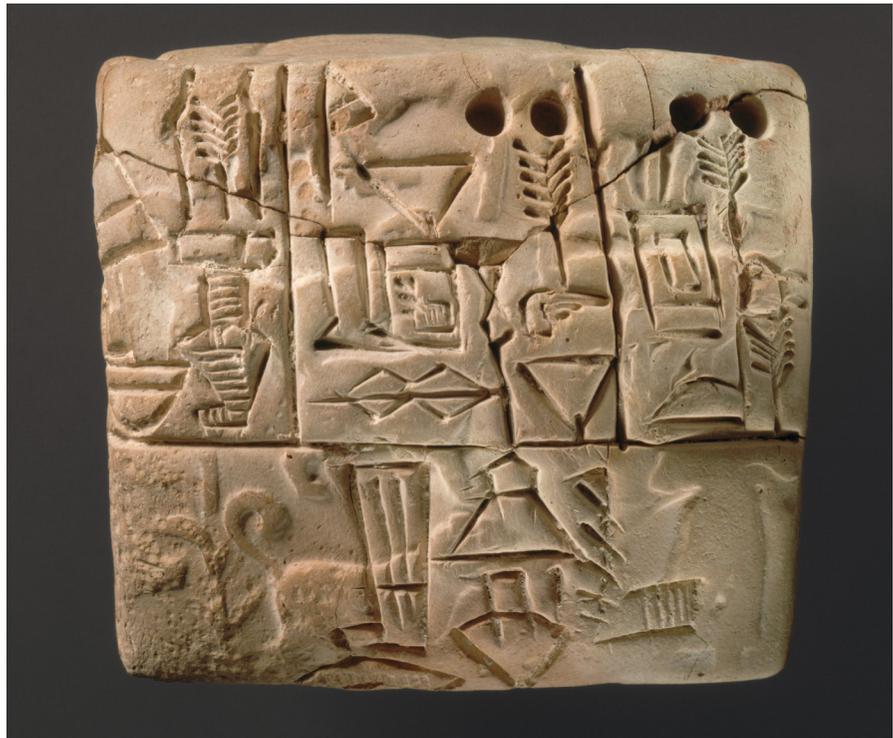
4. _____

5. _____



An ancient form of writing

The first written language ever recorded in human history is called cuneiform. The ancient Sumerians invented cuneiform. They were able to communicate through symbols and pictures arranged into patterns by pressing reeds into soft clay. The concept of representing information through patterns of symbols is the same in modern writing.



This cuneiform tablet from 3000 B.C. is a record for barley distribution.



Which symbol on the tablet represents barley?
Sketch it here.

How many times do you see barley on the tablet?



Ancient cuneiform characters

Although future forms of writing would become better developed and more efficient, cuneiform was a very important technological development in human communication.

Cuneiform Symbols

Here are some examples of actual Sumerian cuneiform symbols and their meanings.



star



sun



person



child



bird



power



head



destiny



house



farmer



fish



night



Try writing something in cuneiform. Share your pictograph to see if a classmate can understand what you meant to say.