Different kinds of numbers	Season	01
	Episode	AP04
	Time frame	1 period

Objectives :
- Learn vocabulary about numbers.
- Recognize different kinds of numbers.

Materials :
- *Matching cards with lists of numbers and appropriate definitions (10 pairs).*
- *Slideshow with the glossary.*
- *Glossary : the different types of numbers (36 copies).*
- *Stickers with numbers to be guessed.*

1 – Matching game

10 mins

Students are handed out cards with either a list of numbers or a definition. Then they mingle to find their counterpart.

2 – Glossary

25 mins

The teacher shows the different kinds of numbers with a slideshow. Each pair has to find what kind their numbers belong to. A glossary is handed out to every student at the end of this part.

3 – Who am I ?

Remaining time

A number is sticked on each student's back, and pairs are formed. Each one must guess what number he is by asking Yes or No questions to the other.

Different kinds of numbers

Season	01
Episode	AP04
Document	Glossary

Definition	Examples
A **natural number** is one that can be found in nature. It has no decimal part and no sign. The smallest natural number is 1.	$2\,;\,67\,;\,10989$
A **whole number** is positive and has no decimal part.	$5\,;\,436\,;\,0$
An **integer** is just a number with no decimal part. It's **positive** (sign $+$) if it's greater than 0 and **negative** (sign $-$) if it's lower than 0.	$-756\,;\,+10\,;\,-77$
An integer is **even** if it's **divisible** by 2, or equivalently if it can be cut in two equal integer parts.	$2\,;\,52\,;\,-7008$
An integer is **odd** if it's not even, that is if it's not a **multiple** of 2.	$-3\,;\,17\,;\,101$
A whole number is **prime** if its only positive divisors are 1 and itself.	$7\,;\,31\,;\,47.$
A **decimal number** is a number whose **decimal part**, the part on the right-hand side of the **decimal point**, is made of a finite number of **digits**.	$12\,;\,-7.52\,;\,15.51$
A **rational number** is a number which can be expressed as a ratio of two integers. Non-integer rational numbers (commonly called **fractions**) are usually written as the fraction $\frac{a}{b}$, where b is not zero. a is called the **numerator**, and b the **denominator**.	$\frac{17}{3}\,;\,-45\,;\,-\frac{47}{5}$
An **irrational number** is any real number that is not a rational number – that is, it is a number which cannot be expressed as a fraction $\frac{m}{n}$, where m and n are integers, with n non-zero.	$\pi\,;\,\sqrt{2}\,;\,e$
The **real numbers** can be described informally as numbers with an infinite decimal representation. The real numbers include the rational numbers and the **irrational numbers**.	$42\,;\,-\frac{23}{129}\,;\,\pi$

Document 1 Matching cards with lists of numbers and definitions

These numbers are used to count things.
$5\,;\ 17\,;\ 142$
These numbers have no decimal part and no sign.
$0\,;\ 42\,;\ 675$
These numbers have no decimal part and can be negative or positive.
$-27\,;\ 2\,;\ 46$
These numbers have no decimal part and are lower than 0.
$-56\,;\ -343\,;\ -2$
These numbers are integers divisible by 2.
$-56\,;\ 12\,;\ 164$
These numbers are integers and have exactly two positive divisors.
$5\,;\ 19\,;\ 23$
These numbers have a decimal part with a finite number of digits.
$-6.54\,;\ 12\,;\ \frac{27}{5}$
These numbers can be written as ratios of two integers.
$24\,;\ \frac{27}{5}\,;\ \frac{17}{3}$
These numbers can't be written as ratios of two integers.
$\pi\,;\ \sqrt{2}\,;\ \sqrt{15}$
These numbers can be written with an infinite number of decimal digits.
$2\,;\ -\pi\,;\ \frac{16}{9}$

Document 2 Stickers for the "Who am I ?" game

0	-1	4	-5
-23	$\frac{1}{3}$	$-\frac{1}{2}$	$\frac{3}{4}$
$-\frac{1}{6}$	81	-36	$-\frac{2}{3}$
12.2	-3.5	0.01	-0.2
$-\pi$	π	$-\sqrt{3}$	$\sqrt{2}$