

# Encoding and Decoding

# Your Mission

The following slides contain encoded sentences.

- Decode the sentences.
- Describe the set of rules or pattern that encoded the sentence.

## Encoded Sentence:

25-15-21 19-15-12-22-5-4 20-8-5 6-9-18-19-20 15-14-5

### Rules/Pattern

Every letter corresponds to a number.

A = 1, B = 2, C = 3, ...

### Decoded sentence

YOU SOLVED THE FIRST ONE

## Encoded Sentence:

KVTU LFFQ TXJNNJOH

### Rules/Pattern

Every letter is shifted by one.

- $A = B$
- $B = C$
- $C = D, \dots$

### Decoded sentence

JUST KEEP SWIMMING

## Encoded Sentence:

REVELC SI SECNETNES GNISREVER

### Rules/Pattern

Reverse the entire sentence

### Decoded sentence

REVERSING SENTENCES IS  
CLEVER

## Encoded Sentence:

SENTENCE WIT MISSIN LETTER AR CONFUSIN

### Rules/Pattern

Taking the last letter off each word

### Decoded sentence

SENTENCES WITH MISSING LETTERS ARE CONFUSING

## Encoded Sentence:

UOY ERA YAWFLAH ENOD

### Rules/Pattern

Reversing each word

### Decoded sentence

YOU ARE HALFWAY DONE

## Encoded Sentence:

VEREOYEN OLEVS OCPMTURE CSEICNE

### Rules/Pattern

Switching every 2 letters of  
each word

### Decoded sentence

EVERYONE LOVES  
COMPUTER SCIENCE



## Encoded Sentence:

VOWOLS ORO OMPORTONT ON SONTONCOS

### Rules/Pattern

Every vowel is replaced with an "O".

### Decoded sentence

VOWELS ARE IMPORTANT IN SENTENCES

## Encoded Sentence:

IS IT CATS RAINING DOGS AND

### Rules/Pattern

Switching every 2 words

### Decoded sentence

IT IS RAINING CATS AND DOGS

# Decoded Sentence:

PUPPIES ARE CUTE

## Rules/Pattern

Pig Latin:

- If a word begins with a consonant:
  - the consonant is moved to the end
  - and an “ay” is added.
- If not:
  - only “ay” is added.

## Encoded sentence

**Note:** This time you are encoding the sentence.

UPPIESPAY AREAY UTECAY

## Encoded Sentence:

### Rules/Pattern

This time, come up with your own code. Then use it to encode a secret message!

### Decoded sentence

Write your cleverly coded secret message here

# Morse Code

You will use these Morse Code rules to decode the next few secret messages.

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.

A ● —  
B — ● ● ●  
C — ● — ●  
D — ● ●  
E ●  
F ● ● — ●  
G — — ●  
H ● ● ● ●  
I ● ●  
J ● — — —  
K — ● —  
L ● — ● ●  
M — —  
N — ●  
O — — —  
P ● — — ●  
Q — — ● —  
R ● — ●  
S ● ● ●  
T —

U ● ● —  
V ● ● ● —  
W ● — —  
X — ● ● —  
Y — ● — —  
Z — — ● ●

1 ● — — —  
2 ● ● — —  
3 ● ● ● — —  
4 ● ● ● ● —  
5 ● ● ● ● ●  
6 — ● ● ● ●  
7 — — ● ● ●  
8 — — — ● ●  
9 — — — — ●  
0 — — — — —

# Rules/Pattern

## Morse Code

### Encoded Sentence:

— — — — —    · — ·    · · ·    ·  
— · — · — — — — —    — · ·    ·    · ·    · · ·  
— · — · — — — — —    — — — — —    · — · ·

### Decoded sentence

MORSE CODE IS COOL

# Rules/Pattern

## Morse Code

### Encoded Sentence:

— • — • — — — — — • — — • • — •  
• — — — • • — • — • • • — — — • •  
— — — — — • • • — • — — —  
— — — • • — • • — • • • — •  
• • • • • • • • • • — • •

### Decoded sentence

CONGRATULATIONS YOU  
FINISHED