# Midterm Activity No. 2
## Substitution Cipher

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*Objective:* Use substitution ciphers to create and share your own secret message. This activity will test your understanding of ciphers while letting you be creative and have fun.

**Instructions:**

**1: Choose Your Own Phrase**

- **My Secret Phrase: "Mataas tumalon, malalim bumaon"**

**2: Select Two Ciphers**

Pick two different substitution ciphers from the lesson:

- **Caesar Shift**
- **Atbash**

**3: Double-Encrypt Your Phrase**
      Step 1: Encrypt your phrase using Cipher #1.
        o   Mataas tumalon, malalim bumaon
           → **Pwddvd wxpdorq, pdodolm expdrq**

| | | |
|---|---|---|
| M – *p* | M – p | |
| A – d | A – d | |
| T – w | L – o | |
| A – d | A – d | |
| A – d | L – o | |
| S – v | I – l | |
| | M – p | |
| | | |
| Result: **pdwddv** | Result: **pdodolp** | |
| | | |
| T – w | B – e | |
| U – x | U – x | |
| M – p | M – p | |
| A – d | A – d | |
| L – o | O – r | |
| O – r | N – q | |
| N – q | | |
| | | |
| Result: **wxpdorq** | Result: **expdrq** | |

Step 2: Take the result and encrypt it again using Cipher #2.
- o Pwddvd wxpdorq, pdodolm expdrq
  → **Kdwwwe dacwlij, kwlwl on vcwkij**

| p – K | p – k | |
|---|---|---|
| d – w | d – w | |
| w – d | o – l | |
| d – w | d – w | |
| d – w | o – l | |
| v – e | l – o | |
| | p – k | |
| | | |
| Result: **kwdwwe** | Result: **kwlwlok** | |
| | | |
| w – d | e – k | |
| x – c | x – c | |
| p – k | p – k | |
| d – w | d – w | |
| o – l | r – i | |
| r – i | q – j | |
| q – j | | |
| | | |
| Result: **dckwlij** | Result: **vckwij** | |

**4: Create a Fun Twist**

"Sa court may isang basketbolistang matangkad. Kapag siya'y tumalon, mataas ang lipad. Ngunit sa kanyang bagsak, malalim ang tapak. Anong kasabihan ang aking tinutukoy?"

**Answer:** *"Mataas tumalon, malalim bumaon"*