Midterm Activity No. 2
Substitution Cipher

Name: **Date**
Subj. & Sec.   **:**

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
- Think of a short phrase, quote, motto, or fun line that you like.
- Example: "Knowledge is power", "Pizza is life", "Dream big always".
- Keep it a secret until the end — this will make your activity unique.

2: Select Two Ciphers
Pick two different substitution ciphers from the lesson:
- Atbash
- Pigpen
- Caesar Shift
- Affine
- Vigenère

Note: You will use both ciphers one after another.

3: Double-Encrypt Your Phrase
Step 1: Encrypt your phrase using Cipher #1.
Step 2: Take the result and encrypt it again using Cipher #2.
Show your step-by-step process for each stage.

4: Create a Fun Twist
- Turn your phrase into the answer to a riddle, trivia question, or pun.
- Example: Phrase = "Math is fun"
Riddle: "What subject adds up to happiness?"
Answer (decoded): "Math is fun".

5: Submit Your Work
Your final output should include:
- The two ciphers you used.
- Your step-by-step encryption process.
- The final ciphertext.
- The riddle/trivia question you created.
- (You will reveal your original phrase only after decryption.)

Example:
- ***My Secret Phrase:*** "Dream big always"

- ***Cipher #1 (Caesar, shift 4):*** DREAM BIG ALWAYS → HVIEQ FME EPZA DW
- ***Cipher #2 (Atbash):*** HVIEQ FME EPZA DW → SEVRJ UNV VKAZ WB
- ***Final Ciphertext:*** SEVRJ UNV VKAZ WB
- ***Riddle:*** "What should you do when your goals feel impossible?"
- ***Answer (decoded):*** "Dream big always."

Reminder:
- *Everyone will have a different phrase and a different cipher path.*
- *That means no two results will be the same, making your work truly your own.*
- *Be creative and have fun with your riddles!*