Scheme Description:

Step 1: Letter Shifting

- Choose a number between 1 and 25 (let's call this number the "shift").
- This number will determine how many positions each letter in the message is shifted in the alphabet.

Step 2: Encryption Process

- For each letter in the message (ignore numbers and punctuation for simplicity):
    - Determine its position in the alphabet (A=1, B=2, ..., Z=26).
    - Shift the letter by the chosen number of positions forward in the alphabet.
    - If shifting past 'Z', continue counting from 'A'. For example, with a shift of 3, 'X' becomes 'A', 'Y' becomes 'B', and 'Z' becomes 'C'.

Step 3: Decryption Process

- To decrypt, reverse the process:
    - Shift each letter backward by the same number of positions.

Example Encryption:

Let's encrypt the message "HELLO FRIENDS" with a shift of 3.

- **Encryption**:
    - H -> K
    - E -> H
    - L -> O
    - L -> O
    - O -> R
    - (space remains as is)
    - F -> I
    - R -> U
    - I -> L
    - E -> H
    - N -> Q
    - D -> G
    - S -> V

So, "HELLO FRIENDS" encrypts to "KHOOR IULQGQV".

Decryption:

To decrypt "KHOOR IULQGQV" (shift of 3):

- K -> H
- H -> E
- O -> L
- O -> L
- R -> O
- (space remains as is)
- I -> F
- U -> R
- L -> I
- Q -> E
- G -> D
- Q -> N
- V -> S

Thus, "KHOOR IULQGQV" decrypts back to "HELLO FRIENDS".

Memorization:

The shift number can be remembered through a simple mnemonic (e.g., a favorite number or a pattern in their locker combination), ensuring it's easy to recall without needing a written key.

Security:

- This scheme is simple yet provides a basic level of security against casual interception. Without knowing the shift number, deciphering the message would require either guessing or systematic trial-and-error, which would take time.

This scheme should be engaging and manageable for seventh graders while satisfying the encryption requirements outlined.