# Encryption

**Encryption:** converting a piece of data to something else that cannot be accessed by someone unauthorized unless the encoding algorithm is known.

Encryption is important to avoid unauthorized access to data.

**Asymmetric encryption:**

* Involves two keys; a public and private key.

**Symmetric encryption:**

* Involves one key.

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| --- | --- | --- | --- |
| **Cipher** | **Definition** | **Before** | **After** |
| Caeser | Shifts the alphabet by x, replaces the original characters by the corresponding key | CAT (+2) | ECV |
| Pigpen |  |  |  |
| Railfence |  |  |  |
| Vignere |  |  |  |