Amino acids are assembled from information encoded in mRNA.

1. The ribosomal subunits, the mRNA, and the tRNA carrying methionine bind together.
2. The tRNA carrying the amino acid specified by the codon in the A site arrives.
3. A peptide bond forms between adjacent amino acids.
4. The tRNA in the P site detaches and leaves its amino acid behind.
5. The tRNA in the A site moves to the P site. The tRNA carrying the amino acid specified by the codon in the A site arrives.
6. A peptide bond is formed. The tRNA in the P site detaches and leaves its amino acid behind.
7. The process is repeated until a stop codon is reached. The ribosome complex falls apart. The newly made protein is released.