## The process of Germination -



- Water is taken up rapidly by the seed in the initial stages, causing the tissues to swell as well as mobilising the enzymes.
- The cotyledons remain below ground then germination.
- The seed coat ruptines as the radicle pushes 0 is way through first. The radicle will provide way and accelop into the roots.
- The enzyme, amylase, hydrolyses starch into maltose; proteases convert proteins to amino acids. The soluble products are transported to the growing points.
- The plumule grows upward to develop into the shoot. It is bent over into the shape of a hook as it pushes its way through the soil to protect the tip from damage due to soil abrasion.
- Food reserves in the seed are insoluble and so cannot be transported in the seedling. They must be broken down and are then transported into the growing apices of the young shoot (plumule) or the young root (radicle).
- If the seed has been planted at the right depth, when the plumule emerges it unfurls and begins to photosynthesise. By now the food reserves in the cotyledons is depleted.