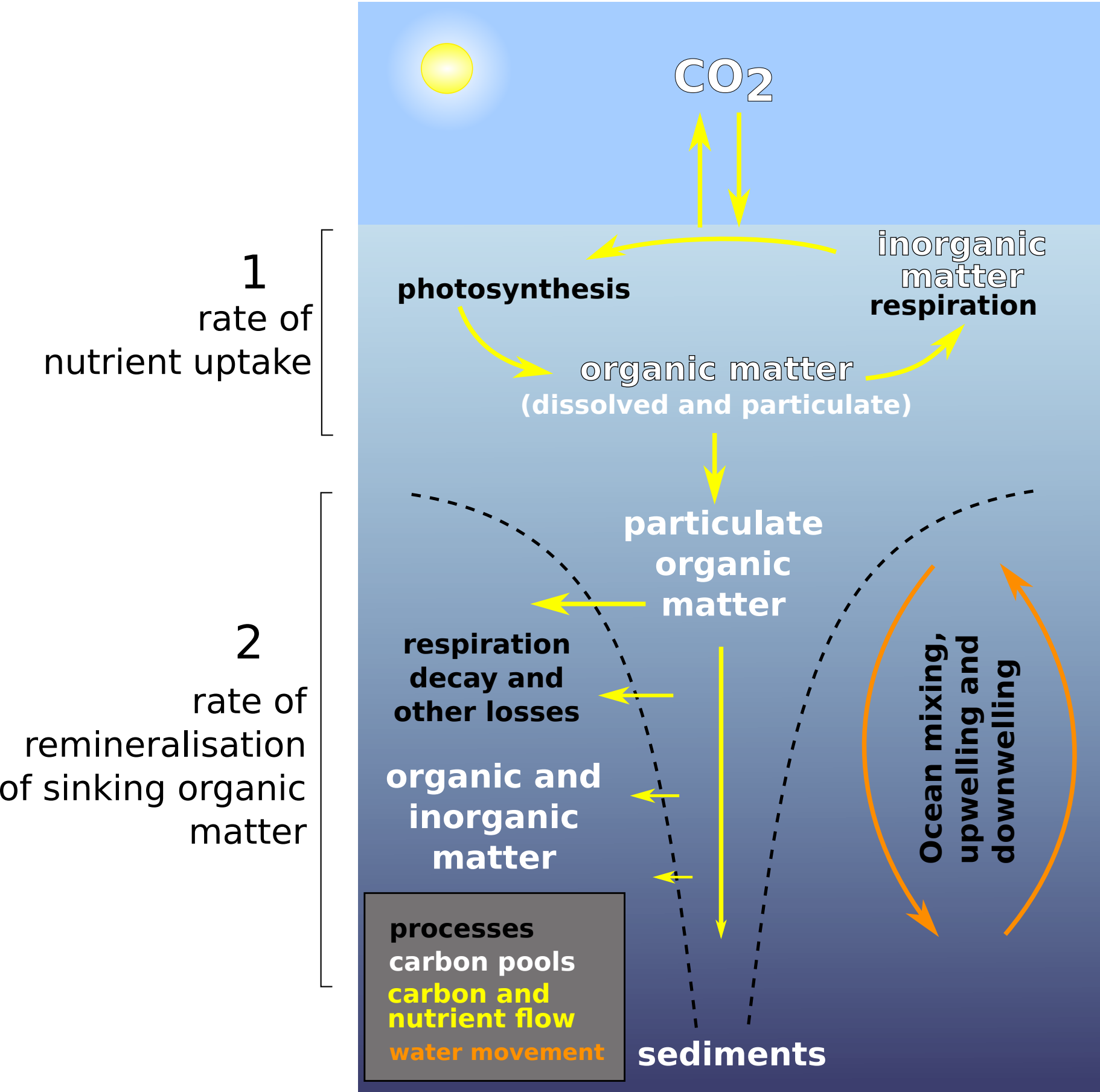
CO_2
1
rate of
nutrient uptake
photosynthesis
inorganic
matter
respiration
organic matter
(dissolved and particulate)
2
rate of
remineralisation
of sinking organic
matter
particulate
organic
matter
respiration
decay and
other losses
organic and
inorganic
matter
Ocean mixing,
upwelling and
downwelling
processes
carbon pools
carbon and
nutrient flow
water movement
sediments