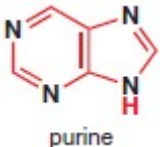
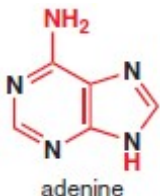
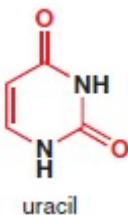
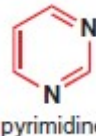
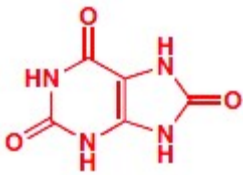
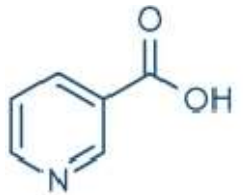
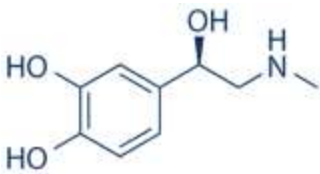
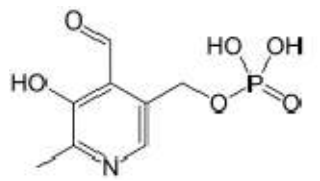


Biological applications of heterocyclic compounds:

Structure compound	Name and uses
 serotonin—a neurotransmitter	Serotonin occurs in proteins as tryptophan and in the brain as the neurotransmitter (5-hydroxytryptamine).
 purine	Purine is one of two chemical compounds that cells use to make the building blocks of DNA and RNA.
 adenine	Adenine is one of the two purine nucleobases used in forming nucleotides of the nucleic acids (DNA and RNA).
 caffeine	Caffeine is a central nervous system (CNS) stimulant.
 uracil	Uracil is one of the four nucleobases in the nucleic acid RNA, and use in the body is to help carry out the synthesis of many enzymes necessary for cell function through bonding with riboses and phosphates.
 pyrimidine	Pyrimidine is one of two chemical compounds that cells use to make the building blocks of DNA and RNA.

 uric acid	Uric acid used by birds, and to some extent by humans, as a way to excrete excess nitrogen but it causes much distress in humans when crystalline uric acid is deposited in joints. We call the pain gout.
	Vitamin B3 (Niacin) is an essential vitamin that helps our bodies release energy from food.
	Adrenaline (epinephrine) is both a neurotransmitter and a hormone.
	B6 (pyridoxine) used to treat and prevent vitamin B6 deficiency, support red blood cell and hemoglobin formation, and assist with nerve and brain function.