Folic acid is not itself biochemically active and must first be reduced at the 5-6 and 7-8 double bonds by dihydrofolate reductase (1.5.1.3) to form *TETRAHYDROFOLIC ACID* (*H₄*folate). This is the origin of a variety of derivatives which are involved in the transfer of one-carbon (C1) units, other than CO₂, and which may be described as the *C1-FOLIC ACID POOL*. They exist at different levels of oxidation equivalent to *methyl* (-CH₃), *methylene* (-CH₂-), *formyl* (-CH=O), *formimino* (-CH=NH), and *methenyl* (-CH=) and their reactions and interrelationships are illustrated below.

The 4-atom system of N-5, C-6, C-9 and N-10, which is circled, is a chelating agent and hence has a high affinity for formaldehyde.