

Nucleic Acid Worksheet

1. What are nucleic acids? Why are they important?
2. What are the two types of nucleic acids, and what are their main differences?
3. DNA and RNA occur as polymers. What is their monomer called? What are the three components of this monomer and draw the general structure.
4. Draw the open chain of ribose and the open chain of deoxyribose. Their cyclic structures are given in the text.
5. In one sentence based on visual clues, describe the difference between a pyrimidine and a purine.
6. List the 5 different nucleotides that occur in DNA/RNA along with their one-letter abbreviations. Circle the pyrimidines. Put a box around those that only occur in DNA.
7. Why do think nucleotides are also sometimes referred to as “bases” or “nucleotide bases”?
8. Why are primes used in the numbering system? What do they represent?
9. What is the difference between a nucleotide and a nucleoside? Explain by giving an example, using structures.