

## 6 Nucleic acids — Part 2 — Answers

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### Answers

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Work through these after trying the questions yourself.

**6.1** Any two of: RNA is a single strand (DNA is double); RNA's sugar is ribose (DNA's is deoxyribose); RNA uses uracil instead of thymine.

**6.2** Three bases.

**6.3** (a) transcription \ (b) translation.

**6.4** It brings an amino acid; its anticodon pairs with the codon on the mRNA.

**6.5** A substitution changes only the one triplet it falls in. A deletion shifts the reading frame, so every triplet after it is read differently (a frameshift), changing many amino acids.

**6.6** A change in the base sequence of a DNA molecule.

**6.7** A–U–G. Each RNA base pairs with the template: T→A, A→U, C→G — so T–A–C is transcribed as A–U–G.