

Skill builder (Compulsory part)

Book	Chapter	Skill	
1A	1	 Writing a report of a scientific investigation	1–12
	2	 Calculating the actual size of an object	2–17
		 Drawing high-power biological diagrams	2–28
	3	 Determining water potential from a graph	3–25
	4	 Drawing an experimental set-up	4–15
		 Drawing a line graph	4–17
	5	 Comparing the energy or nutrient content of different foods	5–31
6	 Setting up a controlled experiment	6–23	
1B	7	 Interpreting a graph of air pressure in the lungs against time	7–29
	8	 Identifying structures in photomicrographs	8–18
	9	 Calculating the rate of photosynthesis	9–19
	10	 Drawing low-power biological diagrams	10–33
 Answering essay questions		10–39	
2	11	 Interpreting a graph of DNA content in a cell against time	11–27
	12	 Comparing the genetic make-up of different parts of a plant	12–29
	13	 Interpreting a graph of the thickness of the uterine lining against time	13–19
	14	 Interpreting a graph of changes in mass of a seedling during germination	14–17
	15	 Interpreting a graph of changes in curvature of the lens over a period of time	15–22
		 Setting up controls in phototropism experiments	15–43
	16	 Describing sequence	16–25
	17	 Identifying the muscle being contracted or relaxed	17–20
	18	 Interpreting graphs of glucose and insulin responses	18–13
3	19	 Drawing pyramid of numbers and pyramid of biomass	19–41
	20	 Describing cause-and-effect relationships	20–37
	21	 Drawing two or more curves in a graph	21–39
	22	 Finding correlations	22–15
	23	 Comparing the effects of antibiotic discs on a bacterial lawn	23–17
	24	 Comparing and contrasting	24–19
4	25	 Drawing a genetic diagram	25–10
		 Drawing a Punnett square	25–11
		 Interpreting a pedigree showing the inheritance of an autosomal characteristic	25–29
		 Interpreting a pedigree showing the inheritance of a sex-linked characteristic	25–31
	26	 Interpreting genetic code	26–11
	27	 Interpreting DNA fingerprints	27–19
	28	 Constructing a dichotomous key	28–34
	29	 Interpreting phylogenetic relationships	29–15
	30	 Explaining evolution by natural selection	30–12



Scientific investigation



Data handling



Communication



Calculation



Drawing

Skill builder (Elective part)

Book	Chapter	Skill	
E1	1	 Interpreting data about concentrations of substances along the kidney tubule	16
		 Interpreting graphs showing changes in urine production over time	25
	2	 Identifying the effect of environmental factors on body heat gain/loss	67
	3	 Presenting data in a bar chart	103
	4	 Interpreting a graph showing hormonal changes in a menstrual cycle	137
E2	1	 Interpreting a graph showing relationships among different variables	21
	2	 Estimating the number of Chinese White Dolphins	100
E3	1	 Interpreting growth curves of microorganisms in a liquid culture	37
	2	 Interpreting graphs of production of microbial metabolites	65
	3	 Comparing the effectiveness of antimicrobial agents	113
E4	1	 Choosing a restriction enzyme for producing a recombinant plasmid	11
	2	 Comparing data in an investigation	95