

7Ab Organs

Student Book

Using conventions in writing [Explaining 1]

[L3] **1 a** Lansoprazole and Naproxen

[L3] **b** Lansoprazole and Naproxen

[L4] **2 a** The requirements are written in the same order on both prescriptions.

[L4] **b** It means that the pharmacist/another doctor/chemist can easily/quickly understand the information. It also prevents mistakes like getting the quantity of tablets muddled with the dose of medicine in each tablet.

[L5] **3** Penicillin V

Tablets 125 mg

One tablet to be taken four times each day.

Quantity 20 tablets

[L4] **4 a** mg

[L4] **b** milligrams

[L5] **5** The top prescription in Photo B copied. Labels added:

label to name of medicine – Lansoprazole

label to form of medicine and amount of medicine in each dose – Capsules 15 mg

label to instructions to the patient on when to take and how much/many – 1 ONCE DAILY

label to total amount of medicine to be given to the patient – Quant: 2x28 capsule

[L5] **6** It makes it easier for other scientists to find information (since they know where to look), to understand the information and to compare information.

Organs [Explaining 3]

[L4] **1** Any five organs and their functions copied from Diagram B. Extra credit should be given for a neatly drawn table, with correct headings. Further credit could be given for ordering the organs in some way (e.g. alphabetically).

[L4] **2** lung

[L5] **3** food pipe (gullet), oesophagus, stomach, small intestine. Some students might have included mouth, which is not labelled on the diagram. Note that the large intestine has little role in getting nutrients into the body, only reabsorbing water.

[L5] **4** kidney, lungs, liver (needs students to have interrogated the entire diagram)

[L5] **5** rectum, bladder

[L5] **6** leaf

[L6] **7 a** Photosynthesis

[L6] **b** Light is needed for photosynthesis – with less light, less food will be made.

[L6] **8** Liver is the expected answer (see label on Diagram B on 7Ab Organs).

Activity Pack

7Ab-1 Using conventions in writing [Explaining 1]

[L3] **1** Warfarin – name of medicine; Tablets 1 mg – the form the medicine takes; ONE TO BE TAKEN... – Instructions to patient; Quant. 50 tablets – total amount in prescription.

[L4] **2** 1 – Ibuprofen SR; 2 – Capsules 800 mg; 3 ONE TO BE TAKEN...; 4 Quant. 10 capsules.

[L4] **3** 1 – Aim; 2 – Prediction; 3 – Method; 4 – Results; 5 – Conclusion; 6 – Evaluation

[L4] **4** It makes it easier to find, understand and compare information.

7Ab-2 Organs [Explaining 3]

[L4]

First picture – intestines – breaks up food and takes it into the blood

Second picture – lungs – gets oxygen into the blood

Third picture – heart – pumps blood

Fourth picture – liver – makes and destroys substances

Fifth picture – leaf – makes food

Sixth picture – stomach – breaks up food

Seventh picture – brain – controls the body

7Ab-6 Investigation reports [Exploring 2]

[L4] **1** Aim, Prediction, Method, Results, Conclusion, Evaluation

[L4] **2** It makes it easier for all scientists to find/understand/compare information.

[L4] **3** Aim – Does temperature affect how many cress seeds germinate? / I wanted to find out which material was the best insulator out of wool, cotton, paper and felt. / My aim was to see whether adding salt to water changed its freezing point.

Prediction – I predict that if a surface is rougher then it will take more force to move it across another surface. / I think that the warmer the water, the greater the amount of salt that will dissolve.

Method – I measured out 20 cm³ of water using a measuring cylinder. / I used a Bunsen burner that was set to a blue flame. / We put on safety goggles in case the liquid splashed in our eyes.

Results – There were a total of 140 daisy plants growing in the lawn. / We found that 10 woodlice moved into the dark and damp area of the dish.

Conclusion – More photosynthesis happens when there is more light. / My evidence shows that when you double the mass you also double the amount the spring stretches by.

Evaluation - I would repeat my measurements to be more sure of my results. / Next time I will use a tape measure because it was difficult to take measurements using a short ruler.

7Ab-7 Where the organs are [Homework 1]

[L4] **1** *Student's own answer:* diagram correctly labelled

[L4] **2** Credit should be given for placing the heart in a reasonably central position, between the two lungs but drawn so that more of it is on the right (see Student Book page 8).

[L5] **3** *Student's own answer:* two organs and their correct functions

[L5] **4** *Student's own answer:* two organs and their correct functions

[L4] **5** Part of an organism with an important job.

7Ab-8 Organ evidence [Homework 2]

[L4] **1 a** It makes it easier for people to understand quickly, even if they don't speak English.

[L5] **b** 9.5 people per 100 000 for liver disease, 68.8 people per 100 000 for heart disease, 21.5 people per 100 000 for lung disease, 3.2 people per 100 000 for kidney disease.

[L4] **c** Ordered list of the data in part b, either alphabetically or ascending/descending death rates.

[L5] **d** *Student's own answer.*

[L5] **e** A major cause of death in the UK is heart disease.

[L5] **f** liver – makes and destroys substances; heart – pumps blood; lungs – get oxygen into the blood; kidneys – clean the blood/produce urine.

[L4] **2 a** B, E or F

[L4] **b** A or D

[L5] **c** C

[L5] **3** nutrition

7Ab-9 A new organ [Homework 3]

[L4] **1 a** kg, m

[L4-5] **b** It makes it easier/quicker for all scientists to understand information, even if they don't speak a certain language.

[L5] **2 a** sensitivity

[L5] **b** nutrition, movement

[L5] **3 a** sensitivity – skin, eye, ear, nose, tongue (students are not expected to get all these).

nutrition – oesophagus, stomach, small intestine.

movement – brain, tongue, heart, diaphragm (students are not expected to get all of these).

[L5] **b** descriptions of organ functions

[L5] **4** Brain because it receives and sends out information/controls things. Credit could also be given for skin, eye, ear, nose, tongue, since they are all organs that sense things in the same way that the 'new organ' senses krill.

[L5] **5** The list should be presented in order: krill detection – jawbone movement downwards & tongue flattening – jawbone movement upwards – tongue pressing water out – krill swallowing.