

Building an Interactive Online Textbook: A Tool at Our Fingertips

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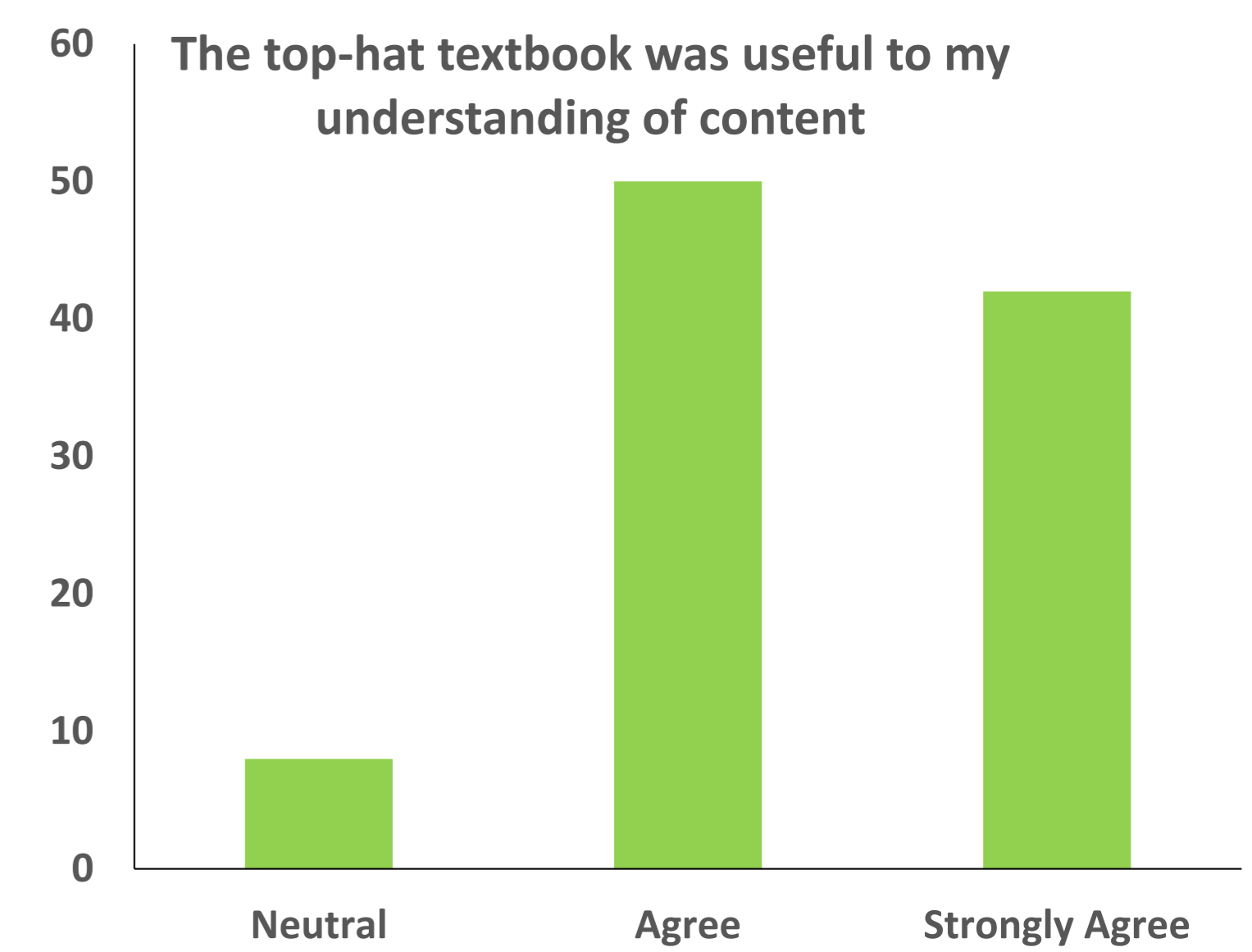
Can't find what you need? Then make your own.

The Task: to design an interactive online textbook suitable for enabling/pathways subjects in health science. Must include foundation concepts of physics, chemistry and physiology.

10 chapters for a week long intensive subject

- ❖ Assigned to team members
- ❖ Developed and populated incorporating bespoke and Tophat acquired materials.
- ❖ Edited for relevance and flow.
- ❖ proofread and copyright check by Tophat.
- ❖ Released onto platform.

Students like it



Funky Features

Self testing

1.5 [Show Correct Answer](#) [Show Responses](#)

The lumbar region is _____

A inferior to the gluteal region

B inferior to the umbilical region

C superior to the cervical region

D superior to the popliteal region

Analytics

You asked 5 questions this week

(1 more than last week)

Your students did well on these 1 questions:

Lecture Q4
Aug. 9
Our body regulates: salt concentration in blood, glucose con...
61 100%
Responses Correct Responses

Your students seem to need help on these 1 questions:

Lecture Q6
Aug. 9
The smallest independently functioning unit of an organism is...
60 51%
Responses Correct Responses

[Save questions for next class](#)

[Learn how to organize course content](#)

Your students are on a roll!

They got the correct answer 81% of the time.

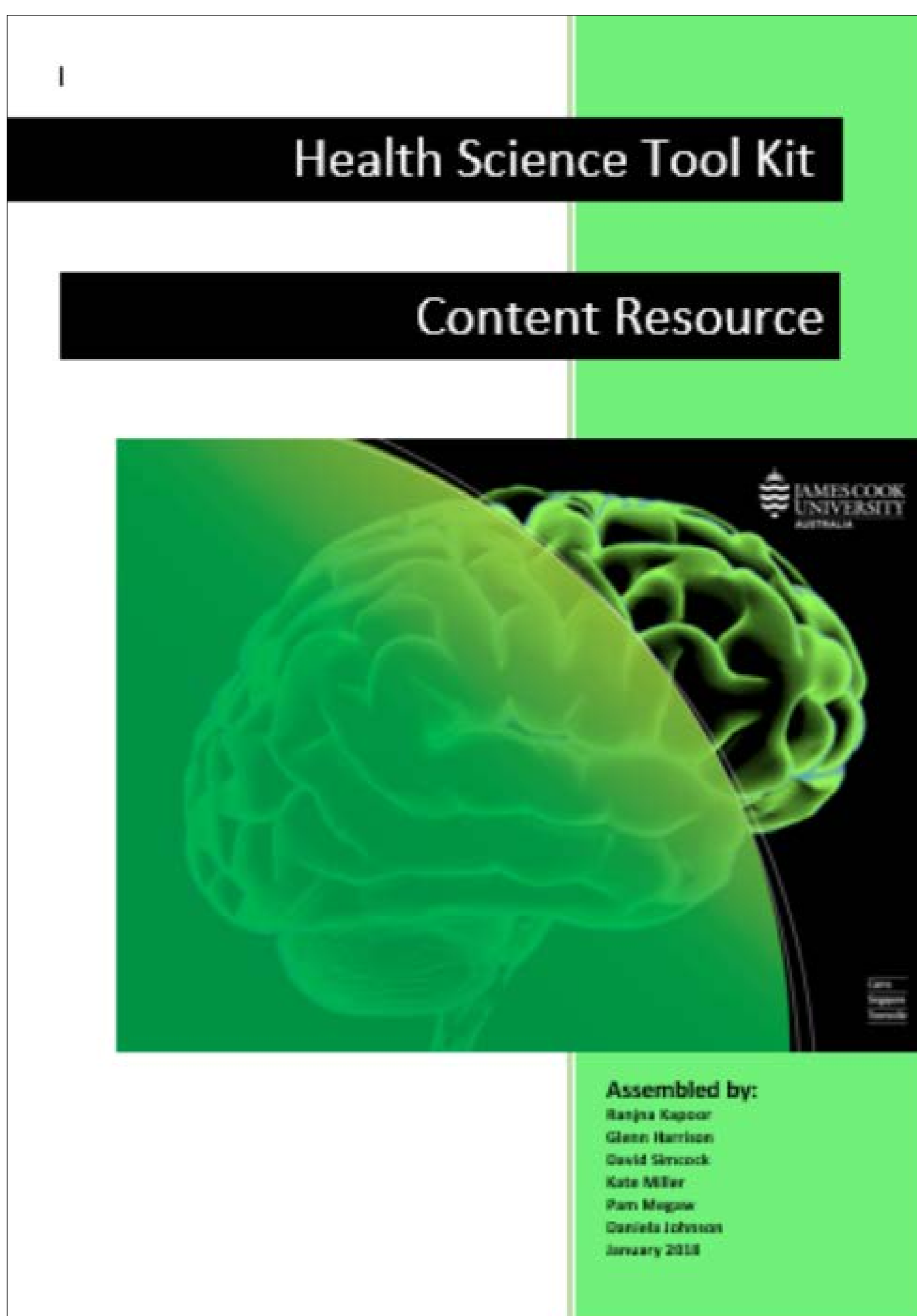
(9% better than last week)

12 students did exceptionally well this week:

Hoverlinks

and is the only part of metabolism that uses atmospheric oxygen. In animals, oxygen enters the body through the respiratory system for this purpose. Oxidative phosphorylation occurs in two parts:

Step 1. The El... remember that when there is an area of high concentration and an area of low concentration, this is called a gradient. It means that particles will move from the high concentration to the low concentration. carriers enter an electron transport chain where their energy is ... membrane ... space of mitochondria (Figure 8.8); this establishes a proton gradient ... between the intermembrane space and matrix of the mitochondria. At the end of the electron transport chain, the electrons are transferred to an oxygen atom to produce an oxygen ion (O²⁻). The negative charge attracts H⁺ and water is formed (H₂O). If there were no oxygen present in the mitochondrion, the electrons could not be removed from the system, and the entire electron transport chain would back up and stop. The mitochondria would be unable to generate new ATP in this way, and the cell would ultimately die from lack of energy. This is the reason we must breathe to draw in new oxygen.



Modify it for a 13 week diploma subject

- ❖ Adapted initially
- ❖ Modified further to fit purpose.

ITERATIVE PROCESS

Interesting information

Costs

To us - \$6000 to TopHat
To students - \$11 life long access

Upsides

Never-ending editing!
Direct linkage textbook to lecture.

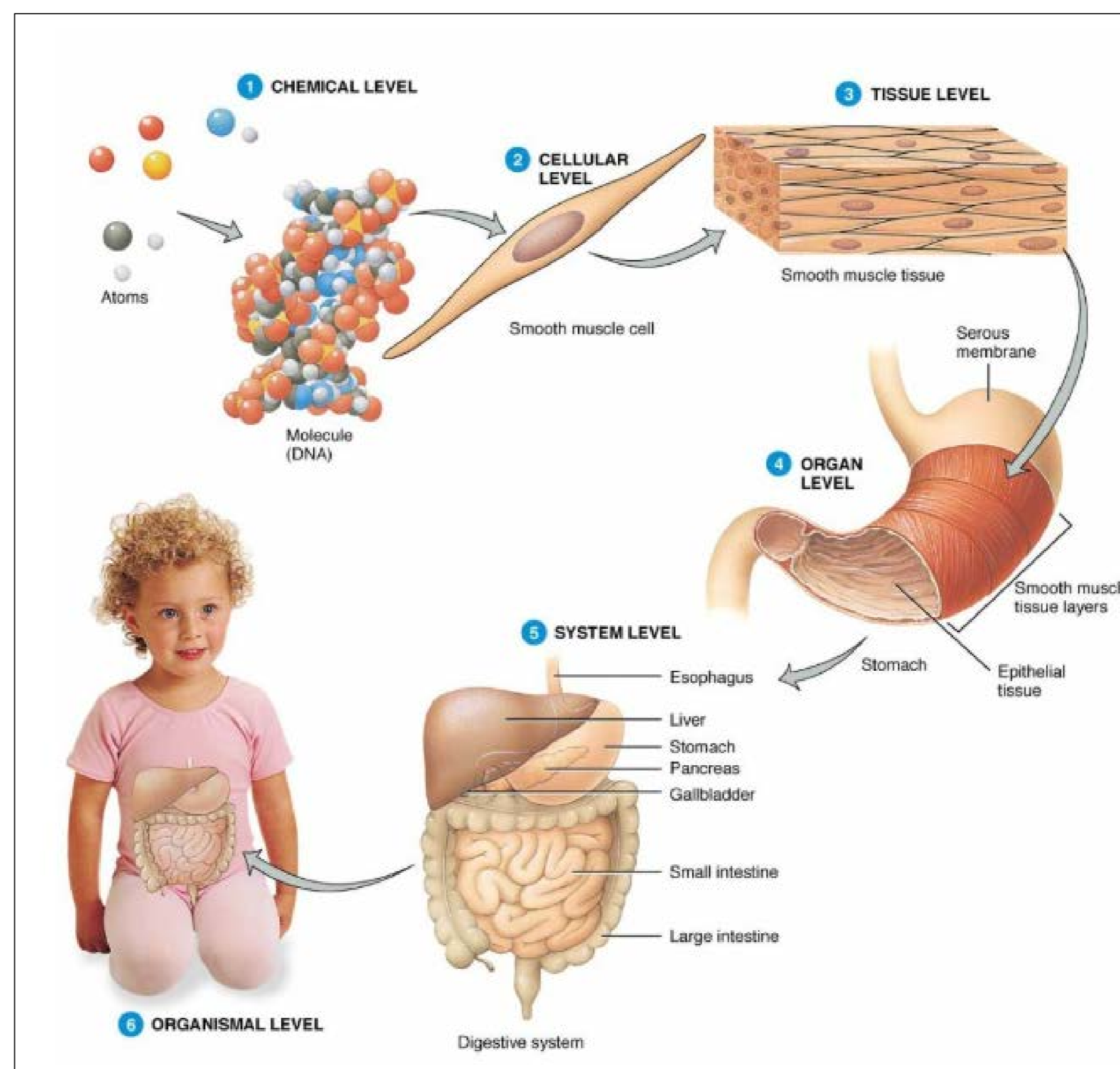
Flexibility to instructor preference

Downsides

Never-ending editing!
Not all students buy it!



FOUNDATIONS OF ANATOMY AND PHYSIOLOGY



The Final Word

- ❖ Simple custom building of fit for purpose textbook
- ❖ Minimal skills acquisition required.
- ❖ Flexible
- ❖ Aligns to activities
- ❖ Reduces content overload = improved learning