

Wrangling Open Educational Resources

Cheryl Cuillier, University of Arizona Libraries
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What Are OER?

projects syllabi

tests textbooks

assignments audio

software games video

animation full courses

lab notes

lecture notes



What Can You Do with OER?



Image: HuBoro,
via Wikimedia
Commons

Open Educational
Resources let users:

- Retain
- Reuse
- Revise
- Remix
- Redistribute

Source: SPARC



High Cost of Textbooks

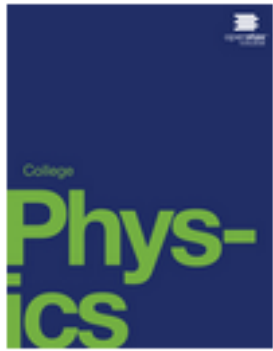
Average undergraduate budget
for books & supplies:

\$1,200+

Source: College Board, 2013-14



Advantages of OER



- Lower costs
- Equalize access
- Are customizable
- Available online
- Offer perpetual access
- Can be updated instantly

<http://openstaxcollege.org>





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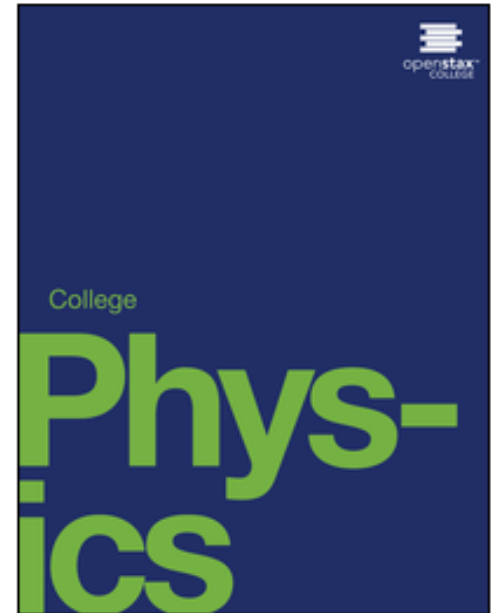
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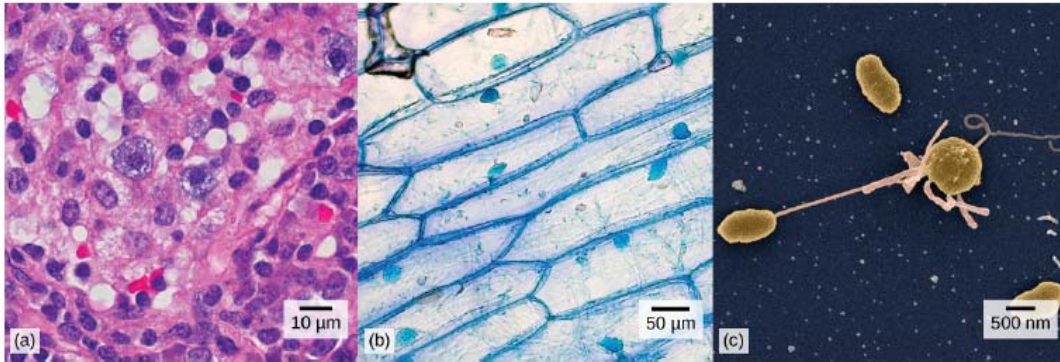


Figure 4.1 (a) Nasal sinus cells (viewed with a light microscope), (b) onion cells (viewed with a light microscope), and (c) *Vibrio tasmaniensis* bacterial cells (seen through a scanning electron microscope).

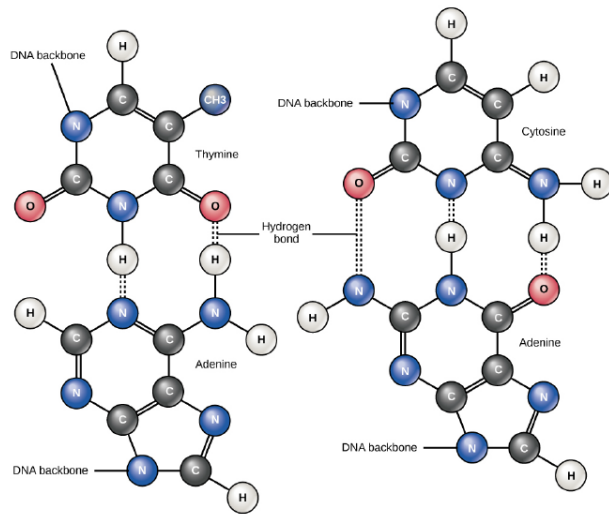


Figure 2.28 Hydrogen bonds connect two strands of DNA together to create the double-helix structure.

KEY TERMS

abstract opening section of a scientific paper that summarizes the research

applied science form of science that aims to solve real-world problems

atom smallest and most fundamental unit of matter

REVIEW QUESTIONS

- 4.** When viewing a specimen through a light microscope, scientists use _____ to distinguish the individual components of cells.
- a beam of electrons
 - radioactive isotopes
 - special stains
 - high temperatures

CRITICAL THINKING QUESTIONS

16. Although the scientific method is used by most of the sciences, it can also be applied to everyday situations. Think about a problem that you may have at home, at school, or with your car, and apply the scientific method to solve it.

17. Give an example of how a scientific discovery had a direct effect on your daily life.

18. Name two topics that are studied by biologists, and two areas of science that would fall outside the realm of biology.





Essentials of Geographic Information Systems

GIST 601 (Intro to Geographic Information System Technology)

Used in place of textbook with list price of \$183.26



Estimated savings:
\$11,000



STAND UP, SPEAK - THE PRACTICE AND ETHICS OF PUBLIC SPEAKING

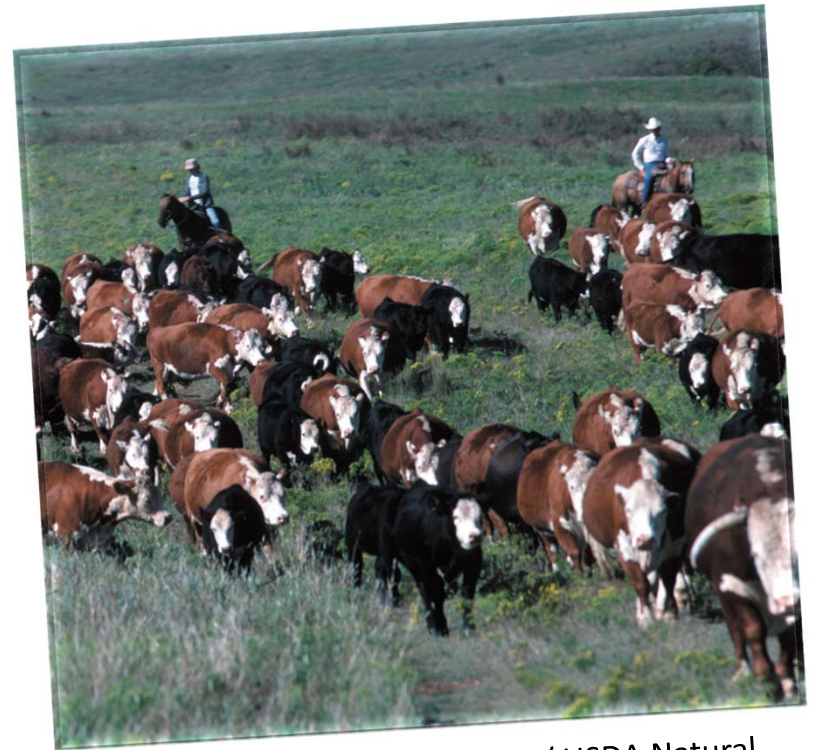
SBE 202 (Professional Communication & Presentation)

Used in place of textbook with list price of \$192



Barriers to OER adoption

- OER scattered online
- Lack of awareness
- Concerns about quality
- “We can’t give it away!”
- Technical/legal issues
- Time for faculty to revamp syllabus
- Some subjects not covered



Ron Nichols / USDA Natural Resources Conservation Service, via Wikimedia Commons



Solutions ~~Barriers~~

- OER scattered online → Repositories & guides
- Lack of awareness → Advocacy
- Concerns about quality → Peer review
- “We can’t give it away!” → Shift thinking
- Technical/legal issues → Training & support
- Time for faculty to revamp syllabus → Grants
- Some subjects not covered → Recruit authors



The William & Flora Hewlett Foundation:

“OER can make an important contribution to the most pressing problem facing education systems in the United States and around the world: **delivering better results with fewer resources.**”



Questions?

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