

1. What is the most basic unit of all living things?

Cells

2. List the organization of living things from smallest to largest.

Cell -> Tissue-> Organ -> Organ System -> Organism

3. What is the function of the digestive system?

Your digestive system is all about getting food into your body, digesting the food, absorbing the nutrients you need, and elimination of the materials you don't need (feces). All animals have one sort of digestive system or another.

4. List the major organs of the digestive system.

mouth, esophagus, stomach, small intestine, large intestine

5. What is the major connection between the excretory and digestive systems?

The digestive system works in parallel with your excretory system (kidneys and urination). While the digestive system collects and removes undigested solids, the excretory system filters waste materials from the blood stream and collects them in urine. They are closely connected in controlling the amount of water in your body.

6. What is the function of the skeletal system?

Protection and support, works very closely with the muscular system to help you move. Without the bones of your skeleton, you would be a blob of water-filled tissues. The bones create a framework to which your muscles and organs can connect. Your skeleton also plays a role in protection, especially in your head. The bones of your skull protect your brain. Your ribs protect most of your internal organs from impact as well.



7. List the major organs of the skeletal system.

The skeletal system includes all of the bones and joints in the body. The skeletal system in an adult body is made up of 206 individual bones. Each bone is a complex living organ that is made up of many cells, protein fibers, and minerals.

8. What are the major type of joints?

gliding, hinge, ball-and-socket, pivot, immovable

9. How is the skeletal system closely tied with the circulatory system?

The larger bones of your skeleton also work with the circulatory system. Both red blood cells and white blood cells are created in your bones.

10. What is the function of the muscular system?

The main purpose of the muscles found in your body is movement: from the movement of your legs while you walk, to the beating of your heart, to the contraction of a very small blood vessel in your brain. You have no control over most of the muscular system. You do control the voluntary muscle in your arms, legs, neck, and torso. You have little or no control over the heart or smooth muscle.

11. What are the three types of muscle tissue?

smooth, cardiac, skeletal (sometimes called voluntary)

12. How do the three types of muscle tissue differ in function?

skeletal muscle is for voluntary movement, cardiac (heart muscle) and smooth (such as in digestion) are both for involuntary movement (Smooth muscle also surrounds your circulatory



Human Body Study Guide Key Biology

Kerry L. Hull, Barbara Janson Cohen



Human Body Study Guide Key Biology:

If you ally dependence such a referred **Human Body Study Guide Key Biology** books that will manage to pay for you worth, get the categorically best seller from us currently from several preferred authors. If you desire to entertaining books, lots of novels, tale, jokes, and more fictions collections are along with launched, from best seller to one of the most current released.

You may not be perplexed to enjoy all ebook collections Human Body Study Guide Key Biology that we will very offer. It is not re the costs. Its roughly what you need currently. This Human Body Study Guide Key Biology, as one of the most vigorous sellers here will unquestionably be in the course of the best options to review.

https://staging.conocer.cide.edu/book/uploaded-files/Download_PDFS/hodd_maths_2ed_found_tchrs_guide.pdf

Table of Contents Human Body Study Guide Key Biology

1. Understanding the eBook Human Body Study Guide Key Biology
 - The Rise of Digital Reading Human Body Study Guide Key Biology
 - Advantages of eBooks Over Traditional Books
2. Identifying Human Body Study Guide Key Biology
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Human Body Study Guide Key Biology
 - User-Friendly Interface
4. Exploring eBook Recommendations from Human Body Study Guide Key Biology
 - Personalized Recommendations
 - Human Body Study Guide Key Biology User Reviews and Ratings
 - Human Body Study Guide Key Biology and Bestseller Lists

5. Accessing Human Body Study Guide Key Biology Free and Paid eBooks
 - Human Body Study Guide Key Biology Public Domain eBooks
 - Human Body Study Guide Key Biology eBook Subscription Services
 - Human Body Study Guide Key Biology Budget-Friendly Options
6. Navigating Human Body Study Guide Key Biology eBook Formats
 - ePub, PDF, MOBI, and More
 - Human Body Study Guide Key Biology Compatibility with Devices
 - Human Body Study Guide Key Biology Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Human Body Study Guide Key Biology
 - Highlighting and Note-Taking Human Body Study Guide Key Biology
 - Interactive Elements Human Body Study Guide Key Biology
8. Staying Engaged with Human Body Study Guide Key Biology
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Human Body Study Guide Key Biology
9. Balancing eBooks and Physical Books Human Body Study Guide Key Biology
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Human Body Study Guide Key Biology
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Human Body Study Guide Key Biology
 - Setting Reading Goals Human Body Study Guide Key Biology
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Human Body Study Guide Key Biology
 - Fact-Checking eBook Content of Human Body Study Guide Key Biology
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning

- Utilizing eBooks for Skill Development
- Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

Human Body Study Guide Key Biology Introduction

In this digital age, the convenience of accessing information at our fingertips has become a necessity. Whether its research papers, eBooks, or user manuals, PDF files have become the preferred format for sharing and reading documents. However, the cost associated with purchasing PDF files can sometimes be a barrier for many individuals and organizations. Thankfully, there are numerous websites and platforms that allow users to download free PDF files legally. In this article, we will explore some of the best platforms to download free PDFs. One of the most popular platforms to download free PDF files is Project Gutenberg. This online library offers over 60,000 free eBooks that are in the public domain. From classic literature to historical documents, Project Gutenberg provides a wide range of PDF files that can be downloaded and enjoyed on various devices. The website is user-friendly and allows users to search for specific titles or browse through different categories. Another reliable platform for downloading Human Body Study Guide Key Biology free PDF files is Open Library. With its vast collection of over 1 million eBooks, Open Library has something for every reader. The website offers a seamless experience by providing options to borrow or download PDF files. Users simply need to create a free account to access this treasure trove of knowledge. Open Library also allows users to contribute by uploading and sharing their own PDF files, making it a collaborative platform for book enthusiasts. For those interested in academic resources, there are websites dedicated to providing free PDFs of research papers and scientific articles. One such website is Academia.edu, which allows researchers and scholars to share their work with a global audience. Users can download PDF files of research papers, theses, and dissertations covering a wide range of subjects. Academia.edu also provides a platform for discussions and networking within the academic community. When it comes to downloading Human Body Study Guide Key Biology free PDF files of magazines, brochures, and catalogs, Issuu is a popular choice. This digital publishing platform hosts a vast collection of publications from around the world. Users can search for specific titles or explore various categories and genres. Issuu offers a seamless reading experience with its user-friendly interface and allows users to download PDF files for offline reading. Apart from dedicated platforms, search engines also play a crucial role in finding free PDF files. Google, for instance, has an advanced search feature that allows users to filter results by file type. By specifying the file type as "PDF," users can find websites that offer free PDF downloads on a specific topic. While downloading Human Body Study Guide Key Biology free PDF files is

convenient, it's important to note that copyright laws must be respected. Always ensure that the PDF files you download are legally available for free. Many authors and publishers voluntarily provide free PDF versions of their work, but it's essential to be cautious and verify the authenticity of the source before downloading Human Body Study Guide Key Biology. In conclusion, the internet offers numerous platforms and websites that allow users to download free PDF files legally. Whether its classic literature, research papers, or magazines, there is something for everyone. The platforms mentioned in this article, such as Project Gutenberg, Open Library, Academia.edu, and Issuu, provide access to a vast collection of PDF files. However, users should always be cautious and verify the legality of the source before downloading Human Body Study Guide Key Biology any PDF files. With these platforms, the world of PDF downloads is just a click away.

FAQs About Human Body Study Guide Key Biology Books

1. Where can I buy Human Body Study Guide Key Biology books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Human Body Study Guide Key Biology book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Human Body Study Guide Key Biology books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Human Body Study Guide Key Biology audiobooks, and where can I find them? Audiobooks: Audio recordings

of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.

8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read Human Body Study Guide Key Biology books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Human Body Study Guide Key Biology :

[hodd maths 2ed found tchrs guide](#)

[holiness living heaven free](#)

holy bible new king james version the new testament/audio cassettes

[holding venus](#)

[holiday singing & dancing games](#)

[holocaust and its religious impact a critical assessment and annotated bibliography](#)

holy bible childrens edition nlt

[hollywoods greatest stunts 1998 hollywoods greatest stunts](#)

[hockey for kids heroes tips and facts](#)

[hollands life of abraham lincoln](#)

holiness in hidden places

[holy cross a century of anglican monasticism](#)

[hobbes science of politics](#)

[holt general science](#)

[holt science & technology tennessee chapter resource file grade 7 chapter 9](#)

Human Body Study Guide Key Biology :

sap controlling co components 1 detailed guide - Feb 08 2023

web when planning you want to identify the expected costs for the selected period manual planning allows you to plan costs based on the level of output required you can plan

pdf sap controlling manual 2012 - Sep 22 2021

manual planning sap help portal - Nov 05 2022

web jun 2 2023 sap controlling manual 2012 help environment harvard edu web this book deals with optimization methods as tools for decision making and control in the

standard assessment procedure sap 2012 bre group - Aug 02 2022

web sap controlling manual 2012 a literary masterpiece penned by way of a renowned author readers set about a transformative journey unlocking the secrets and untapped potential

sap co end user manual sap materials documents tutorials - Mar 09 2023

web oct 17 2017 sap co end user manual october 17 2017 the following components of sap controlling module are covered in different sections of this document with detailed

sap controlling manual 2012 2023 klantenhandboek dutchgiraffe - Aug 22 2021

grc tuesdays what s new in sap solutions for three lines - Jan 27 2022

web sap controlling manual 2012 birth control on main street jan 09 2021 unearthing individual stories and statistical records from previously overlooked birth control clinics

sap controlling manual 2012 pdf 2023 - Jul 01 2022

web jul 5 2023 sap controlling manual 2012 1 10 downloaded from uniport edu ng on july 5 2023 by guest sap controlling manual 2012 this is likewise one of the factors by

sap library controlling co - Aug 14 2023

web show toc controlling co controlling provides you with information for management decision making it facilitates coordination monitoring and optimization of all processes

controlling with sap erp business user guide sap - Jan 07 2023

web one data source linking fi line item bseg and co line item coep to provide complete profit and loss statement combined line item document allows selection from around

sap controlling manual 2012 wrbb neu edu - Apr 29 2022

web sap controlling manual 2012 1 sap controlling manual 2012 the royal marsden manual of clinical nursing procedures sustainability in energy and buildings sap

[sap controlling manual 2012 50storiesfortomorrow ilfu com](#) - Mar 29 2022

web sap controlling manual 2012 beginning windows store application development html and javascript edition dec 28 2019 beginning windows store application

sap controlling manual 2012 help environment harvard edu - May 31 2022

web sep 12 2023 cancel work items with this new feature in sap process control and sap risk management business users can now delete obsolete or invalid work items from

sap controlling manual 2012 uniport edu ng - Feb 25 2022

web jul 7 2023 sap controlling manual 2012 2 10 downloaded from uniport edu ng on july 7 2023 by guest consuming however they produce results on whole the services of

sap controlling manual 2012 uniport edu ng - Oct 24 2021

what you should know about controlling in sap - Oct 04 2022

web sap controlling manual 2012 right here we have countless books sap controlling manual 2012 and collections to check out we additionally pay for variant types and as

[sap co tutorial learn sap controlling module tutorialkart](#) - Apr 10 2023

web sap co controlling is an important module of sap system used for organization internal reporting sap controlling module provides supporting information to management for

controlling with sap s 4hana business user guide - Dec 06 2022

web sap 2012 the 2012 edition of the standard assessment procedure sap 2012 can be downloaded from this page sap 2012 was until recently used for building regulation

sap hana controlling pdf sap se enterprise resource - Sep 03 2022

web as this sap controlling manual 2012 it ends up living thing one of the favored book sap controlling manual 2012 collections that we have this is why you remain in the best

controlling co sap help portal - Jul 13 2023

web product cost controlling co pc product cost controlling calculates the costs incurred in the manufacture of a product or provision of a service it enables you to calculate the

sap controlling manual 2012 help environment harvard edu - Nov 24 2021

bre group - Jun 12 2023

web bre group

sap controlling manual 2012 ftp popcake com - Dec 26 2021

web decoding sap controlling manual 2012 revealing the captivating potential of verbal expression in a time characterized by interconnectedness and an insatiable thirst for

sap co controlling module training tutorial guru99 - May 11 2023

web sep 9 2023 sap co overview the controlling co module of sap provides information to managers decision makers to understand where the company s money

i hear a pickle and smell see touch and taste it too - Sep 10 2022

web may 3 2020 a book about the senses written and illustrated by rachel isadora

i hear a pickle by rachel isadora youtube - Aug 21 2023

web jan 13 2020 i hear a pickle and smell see touch taste it too by rachel isadora hearing smelling seeing touching tasting our five senses allow us to experien

i hear a pickle and smell see touch taste it too isadora - Jul 20 2023

web i hear a pickle and smell see touch taste it too isadora rachel isadora rachel amazon sg books

i hear a pickle and smell see touch and taste it too - Aug 09 2022

web i hear a pickle and smell see touch and taste it too author rachel isadora author illustrator summary children explore their five senses learning what they can see smell hear touch and taste

i hear a pickle and smell see touch taste it too - Dec 13 2022

web i hear a pickle and smell see touch taste it too hardcover picture book 1 mar 2016 smelling hearing seeing touching tasting there are so many ways to experience the world rachel isadora s simple familiar scenes of boys and girls using all five senses sometimes to humorous effect is a great way to open up the topic to

i hear a pickle and smell see touch taste it too bookshop - Oct 11 2022

web with our ears we hear the birds sing with our nose we smell the stinky cheese with our eyes we see the moon and stars and sometimes glasses help us see even better with our skin we feel the rain and learn not to touch the hot stove and with our tongue we can taste our favorite foods

i hear a pickle and smell see touch taste it too - Mar 04 2022

web jan 12 2016 i hear a pickle and smell see touch taste it too kindle edition by isadora rachel isadora rachel download it once and read it on your kindle device pc phones or tablets use features like bookmarks note taking and highlighting while reading i hear a pickle and smell see touch taste it too

i hear a pickle and smell see touch taste it too isadora - Nov 12 2022

web i hear a pickle and smell see touch taste it too isadora rachel amazon com au books

i hear a pickle and smell see touch and taste it too - May 06 2022

web jan 1 2016 follow the author i hear a pickle and smell see touch and taste it too paperback january 1 2016 spanish edition by rachel isadora author 4 6 368 ratings editors pick best books ages 6 8 see all formats and editions

i hear a pickle and smell see touch taste it too - Jun 07 2022

web i hear a pickle and smell see touch taste it too rachel isadora rachel isadora illustrator hardcover

i hear a pickle and smell see touch taste it too - Apr 17 2023

web jan 12 2016 in five color coded sections one for each sense multicultural kids take turns describing things they hear smell see touch or taste drawing from everyday experiences in a child s life isadora pays tribute to the senses as well as to the natural world friends family food pets curiosity and discovery

i hear a pickle and smell see touch taste it too google - Jun 19 2023

web jan 12 2016 i hear a pickle and smell see touch taste it too rachel isadora penguin young readers group jan 12 2016 juvenile fiction 32 pages isadora s book about the five senses is aimed

i hear a pickle and smell see touch taste it too by rachel - Feb 15 2023

web sep 5 2017 buy i hear a pickle and smell see touch taste it too by rachel isadora from waterstones today click and collect from your local waterstones or get free uk delivery on orders over 25

i hear a pickle and smell see touch and taste it too rachel - Mar 16 2023

web children explore their five senses learning what they can see smell hear touch and taste i hear a pickle and smell see touch and taste it too rachel isadora

i hear a pickle and smell see touch and taste it too - Jan 14 2023

web buy this book i hear a pickle and smell see touch and taste it too rachel isadora penguin paulsen 16 99 32p isbn 978 0 399 16049 3 as in her earlier books simplicity is

i hear a pickle and smell see touch taste it too goodreads - Oct 23 2023

web jan 12 2016 5 870 reviews 132 followers may 17 2018 i hear a pickle and smell see touch and taste it too is a children s picture book written and illustrated by rachel isadora it is an educational book to teach children about the five basic senses hear smell see touch and taste

i hear a pickle and smell see touch taste it too google play - May 18 2023

web i hear a pickle and smell see touch taste it too ebook written by rachel isadora read this book using google play books app on your pc android ios devices

i hear a pickle and smell see touch taste it too - Sep 22 2023

web jan 12 2016 *i hear a pickle and smell see touch taste it too* hardcover illustrated january 12 2016 by rachel isadora
author illustrator

i hear a pickle and smell see touch and taste it too by - Jul 08 2022

web jan 1 2016 abstract this fetching concept book from veteran author illustrator isadora offers a gallery of sensory experiences broken into sections for each of the five senses under *i hear for*

i hear a pickle and smell see touch taste it too abebooks - Apr 05 2022

web abebooks com *i hear a pickle and smell see touch taste it too* 9781524739584 by isadora rachel and a great selection of similar new used and collectible books available now at great prices

exploring microsoft office excel 2016 comprehensive - Apr 12 2023

web mar 23 2016 *exploring microsoft office excel 2016 comprehensive* poatsy mary anne mulbery keith davidson jason grauer robert 9780134479446 books amazon ca books

exploring microsoft office excel 2007 grauer robert t mulbery - Jun 14 2023

web jan 1 2009 *exploring microsoft office excel 2007* grauer robert t mulbery keith scheeren judy on amazon com free shipping on qualifying offers *exploring microsoft office excel 2007*

exploring microsoft office excel 2016 comprehensive open - Sep 05 2022

web apr 2 2016 *exploring microsoft office excel 2016 comprehensive* by mary anne poatsy keith mulbery jason davidson robert t grauer apr 02 2016 pearson edition spiral bound *exploring microsoft office excel 2016 comprehensive* by mary anne poatsy

exploring microsoft office excel 2019 comprehensive - May 13 2023

web *exploring microsoft office excel 2019 comprehensive*

exploring microsoft office excel 2016 comprehensive guide books - Aug 04 2022

web abstract this book offers full comprehensive coverage of microsoft excel beyond point and click the goal of the *exploring* series is to move students beyond the point and click to understanding the why and how behind each skill

exploring microsoft office excel 2007 comprehensive grauer - Aug 16 2023

web *exploring microsoft office excel 2007 comprehensive* grauer robert t mulbery keith scheeren judy amazon com tr kitap *exploring microsoft office excel 2007 comprehensive 2nd* - Jul 03 2022

web *exploring microsoft office excel 2007 comprehensive 2nd edition* grauer robert t mulbery keith scheeren judy 9780135032275 books amazon ca

exploring microsoft office excel 2016 comprehensive 1st edition - Feb 27 2022

web exploring microsoft office excel 2016 comprehensive 1st edition is written by mary anne poatsy keith mulbery jason davidson robert t grauer and published by pearson the digital and etextbook isbn's for exploring microsoft office excel 2016 comprehensive are 9780134445458 0134445457 and the print isbn's are

exploring microsoft office excel 2010 comprehensive grauer - Oct 06 2022

web exploring microsoft office excel 2010 comprehensive grauer robert t poatsy mary anne mulbery keith hogan lynn 9780135098592 books amazon ca

exploring microsoft excel 2013 comprehensive exploring for - Feb 10 2023

web jun 14 2013 exploring microsoft excel 2013 comprehensive exploring for office 2013 poatsy mary anne mulbery keith davidson jason grauer robert t 9780133412185 amazon com books books

exploring microsoft office excel 2010 comprehensive exploring series - Jul 15 2023

web nov 22 2010 exploring microsoft office excel 2010 comprehensive exploring series grauer robert t poatsy mary anne mulbery keith hogan lynn 9780135098592 amazon com books books computers technology software buy new 15 90 list price 153 32 details save 137 42 90 5 99 delivery july 26 28

exploring microsoft excel 2013 comprehensive google books - Jun 02 2022

web jun 10 2013 exploring microsoft excel 2013 comprehensive authors mary anne poatsy keith mulbery jason davidson robert t grauer publisher pearson higher ed 2013 isbn 013335010x

exploring microsoft excel 2013 comprehensive paperback - Jan 29 2022

web jun 4 2013 exploring microsoft excel 2013 comprehensive poatsy mary anne mulbery keith davidson jason grauer robert t 9780133412185 books amazon ca mary anne poatsy author keith mulbery author jason davidson author 4 4

test bank for exploring microsoft office excel 2019 comprehensive - Dec 28 2021

web download original test bank for exploring microsoft office excel 2019 comprehensive 1st edition mary anne poatsy keith mulbery jason davidson robert grauer isbn 10 0135452759 isbn 13 9780135452752 isbn 10 0135402468 isbn 13

9780135402467 isbn 10 0135825288 isbn 13 9780135825280 isbn 10 0135402468 isbn 13

exploring microsoft 365 excel 2021 pearson - Mar 11 2023

web apr 14 2022 instant access isbn 13 9780137693856 exploring microsoft 365 excel 2021 published 2022 need help

exploring microsoft office excel 2007 comprehensive - Nov 07 2022

web introduction to excel formulas and functions charts working with large worksheets and tables data to information data tables and amortization tables data consolidation links and formula auditing what if analysis collaboration and workbook distribution templates styles the web and macros

exploring microsoft office excel 2010 comprehensive - May 01 2022

web exploring microsoft office excel 2010 comprehensive robert t grauer 9780135098592 mis management information systems applications software

exploring microsoft office excel 2016 comprehensive pearson - Dec 08 2022

web may 8 2016 exploring microsoft office excel 2016 comprehensive 1st edition published by pearson may 9 2016 2017 mary anne poatsy montgomery county community college keith mulbery jason davidson butler university robert t grauer university of miami

exploring microsoft 365 introductory 2021 pearson - Mar 31 2022

web jul 7 2022 instant access isbn 13 9780137693795 exploring microsoft 365 introductory 2021 published 2022 need help

exploring microsoft office excel 2019 comprehensive pearson - Jan 09 2023

web sep 18 2020 instant access isbn 13 9780136912026 exploring microsoft office excel 2019 comprehensive published 2020 need help