How to use

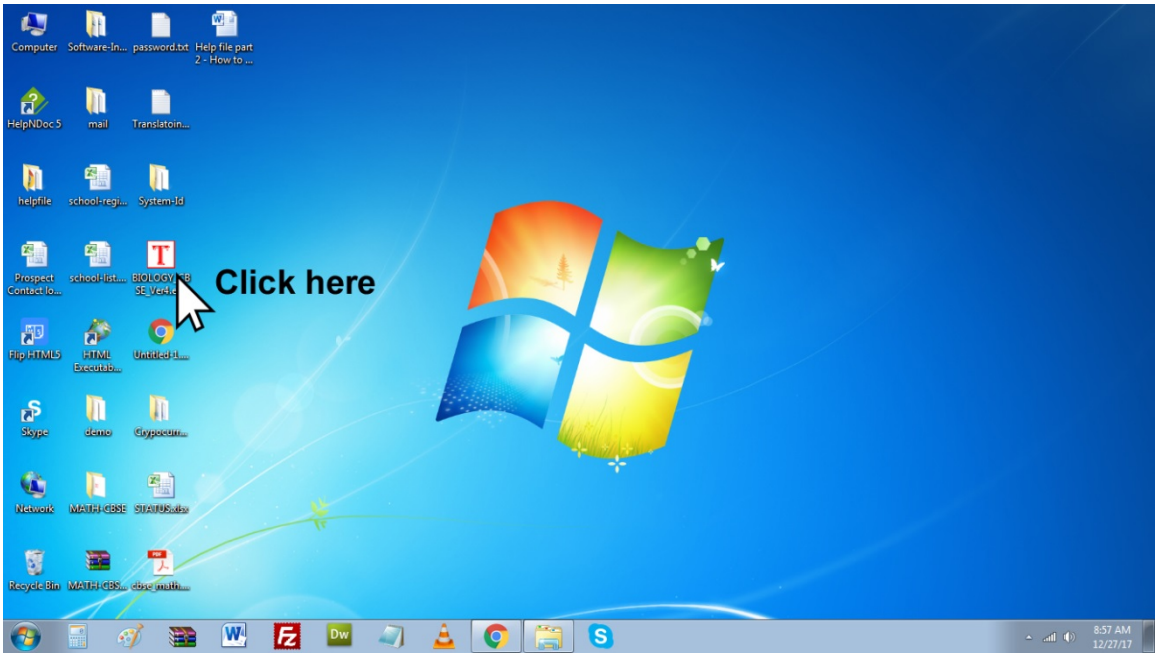
Section A: Structure

Starting your document

Minimum software requirements (installed)

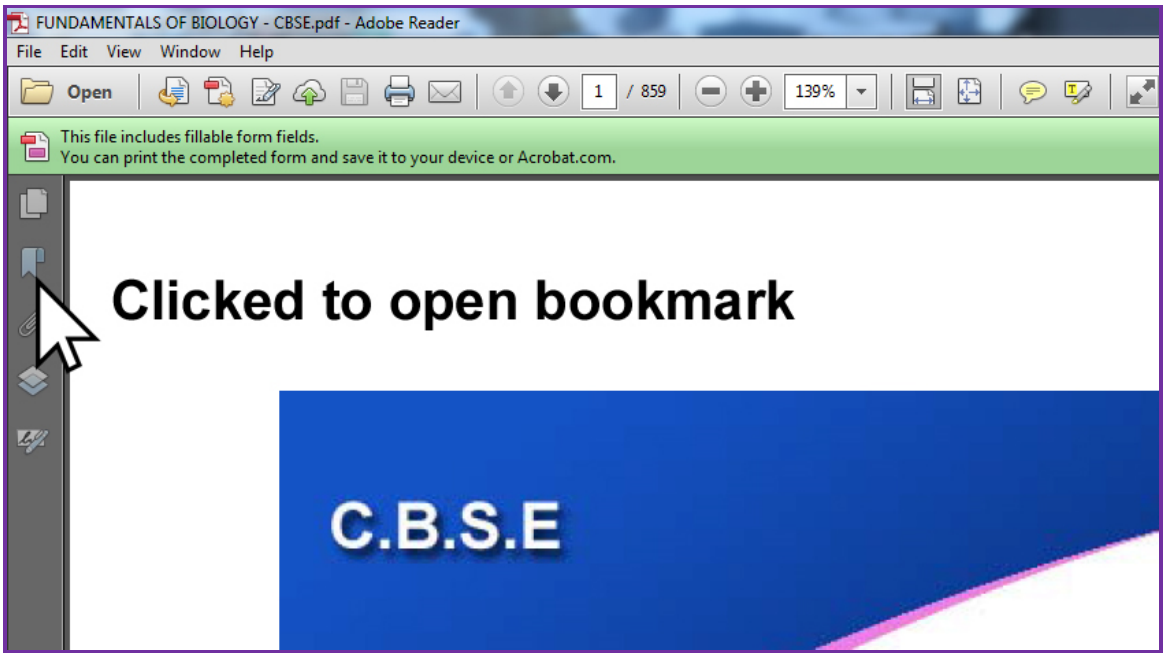
- Windows v. XP or above
- Adobe Reader v.8
- Flash player (above 11)
- Web browser, Internet Explorer v.7 or above, Mozilla v.25 or above, Chrome v. 56.0

Click on the installed icon from desktop window.

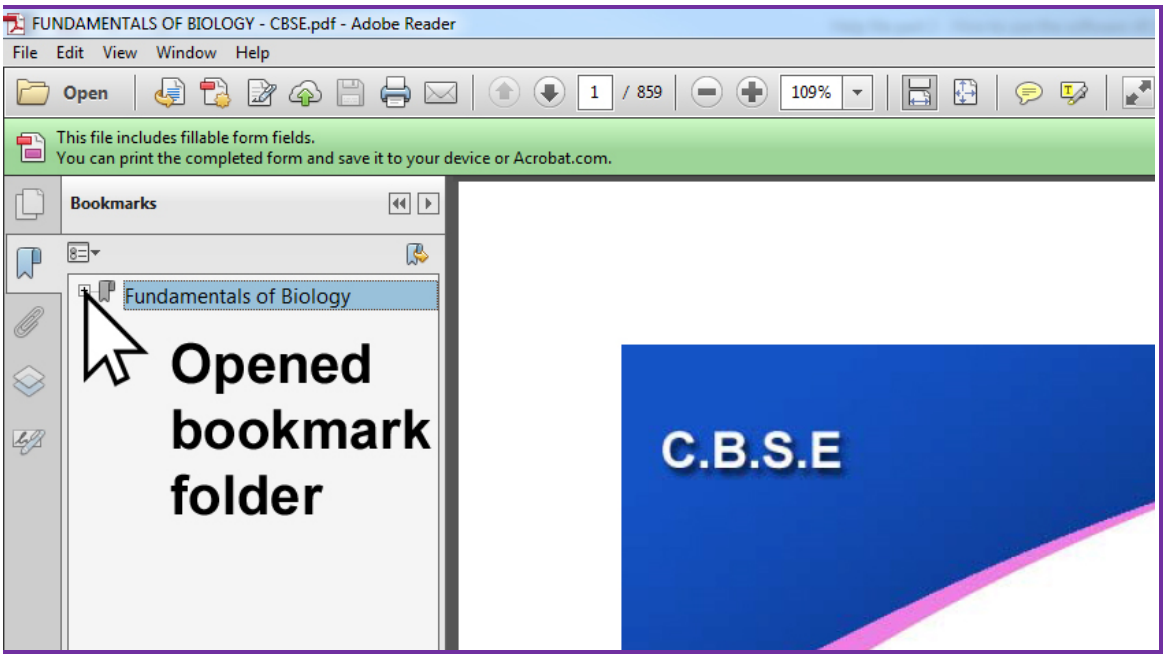


- ***Create bookmark***

Bookmark is the way to save visiting website or page address for return trip. Click in this icon to see saved bookmark



Bookmark will open like below.



- ***Color scheme***

Instead of traditional numbering schema this document contains various color pattern to identify heading, sub heading, notes, etc. Please follow the color patterns mapping below.

✓ ***Blue:*** Main subject, or topics, or units, or section heading

- ✓ ***Pink:*** Sub heading for subject, or topics, or units, or section heading
- ✓ ***Green:*** Sub-sub heading subject, or topics, or units, or section heading
- ✓ *Purple:* Short notes on a topic
- ✓ *Orange:* Sub-heading for short notes on a topic

Mapping

Blue
  Pink
    Green
      Purple
        Orange

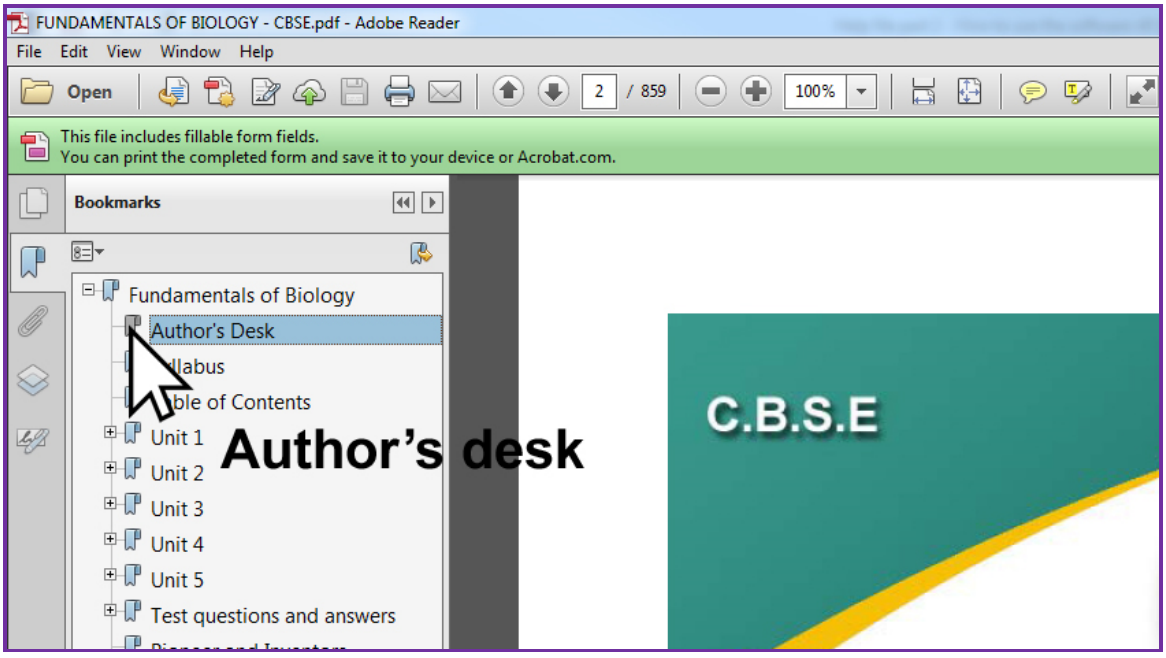
Key slices

There are major eight major slices of this study materials. These are,

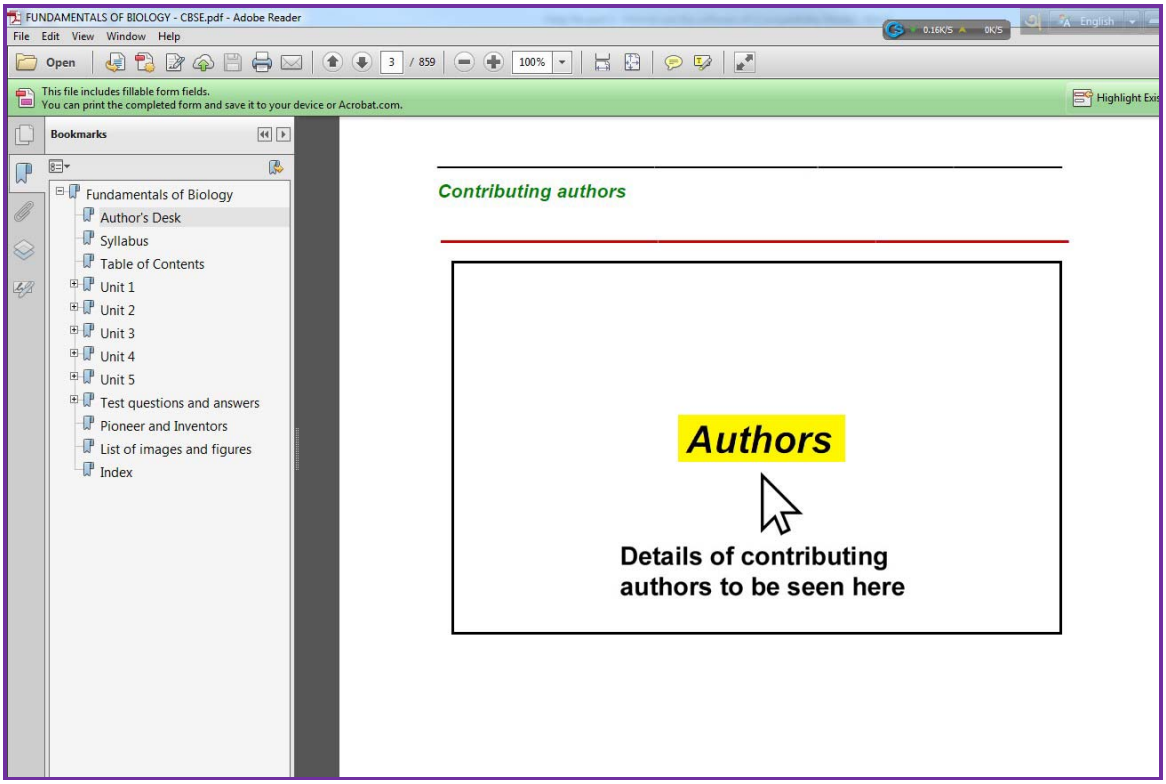
Slice 1: Author's Desk
Slice 2: Syllabus
Slice 3: Table of Contents
Slice 4: Main courseware
Slice 5: Test Questions and Answer
Slice 6: Pioneers and Inventors
Slice 7: Images and figures
Slice 8: Index

Slice 1: Author's Desk

Author of this study material. Follow the steps as described below;

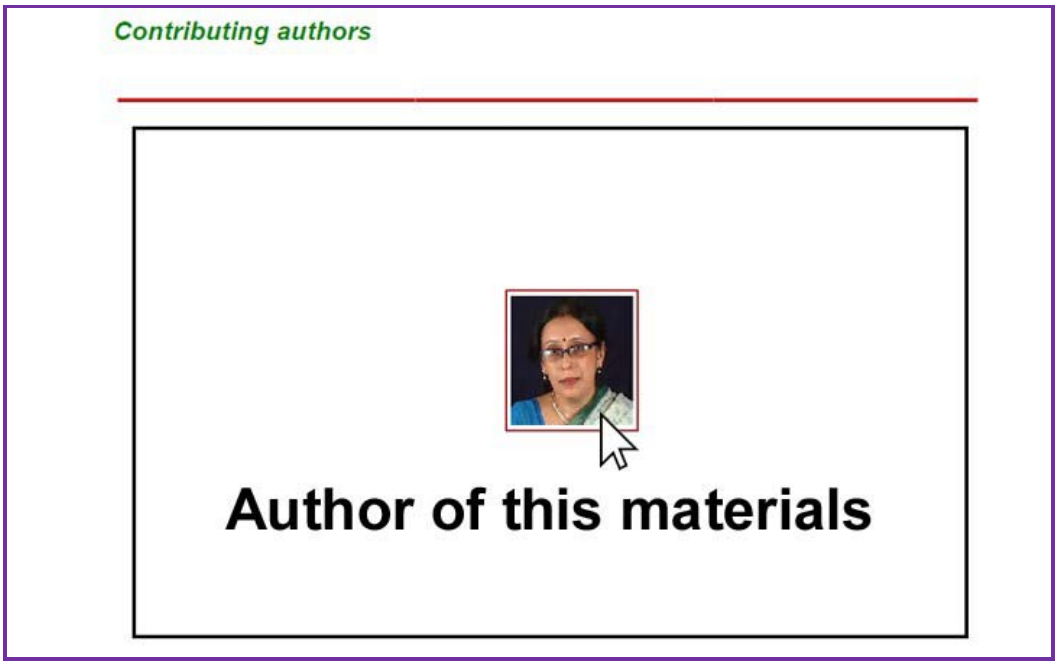


Clicking this left panel will open the details about the author in right display window.



Click “Authors” button.

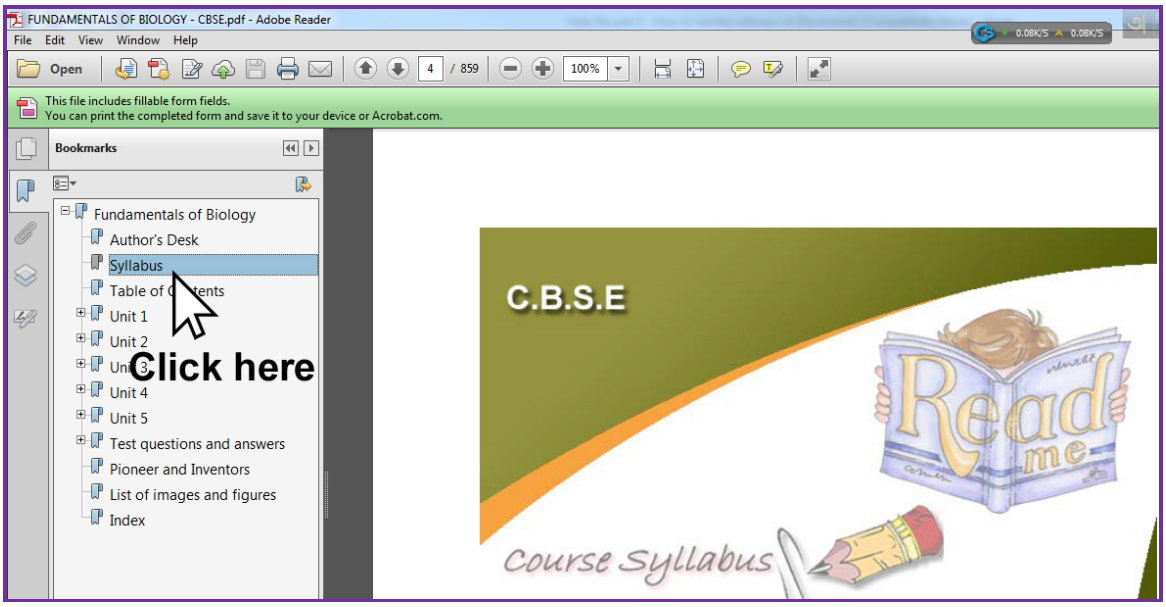
Image of the author's icon will appear, and click on the image.



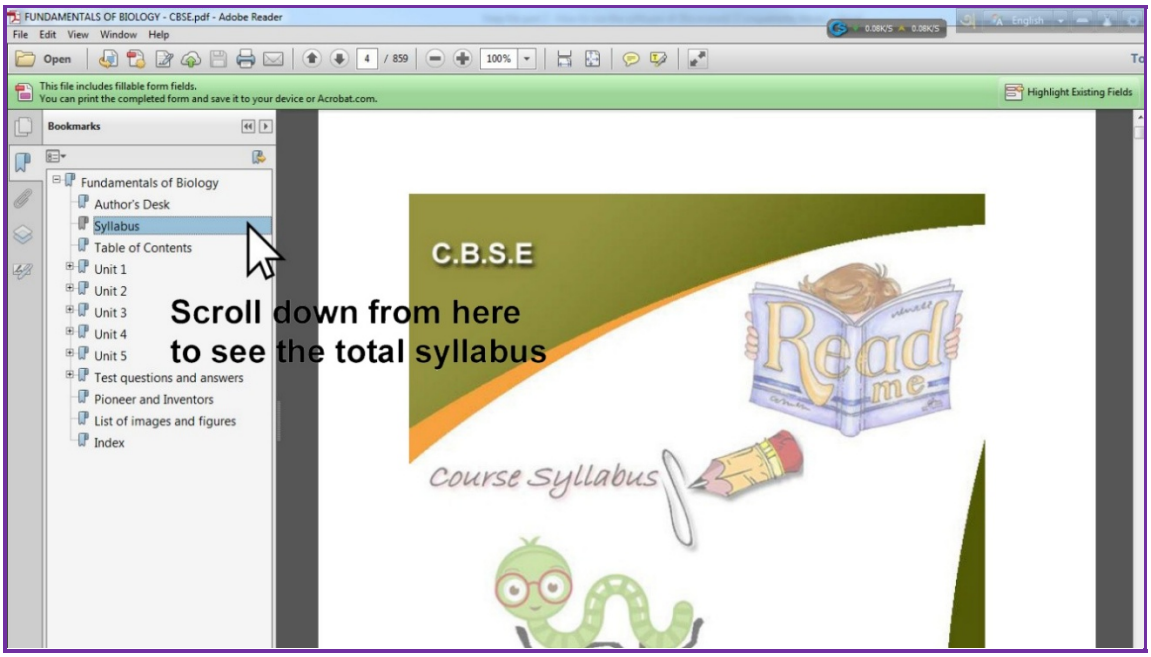
Total description of author's background along with video comments will appear. Click play button to start video and hear their approach to write this book in their own words.

Slice 2: Syllabus

This slice will contain recommended current course syllabus by the relevant board (i.e., CBSE, CBSE-i, ISC, various state board, etc.). Select syllabus option from left panel.



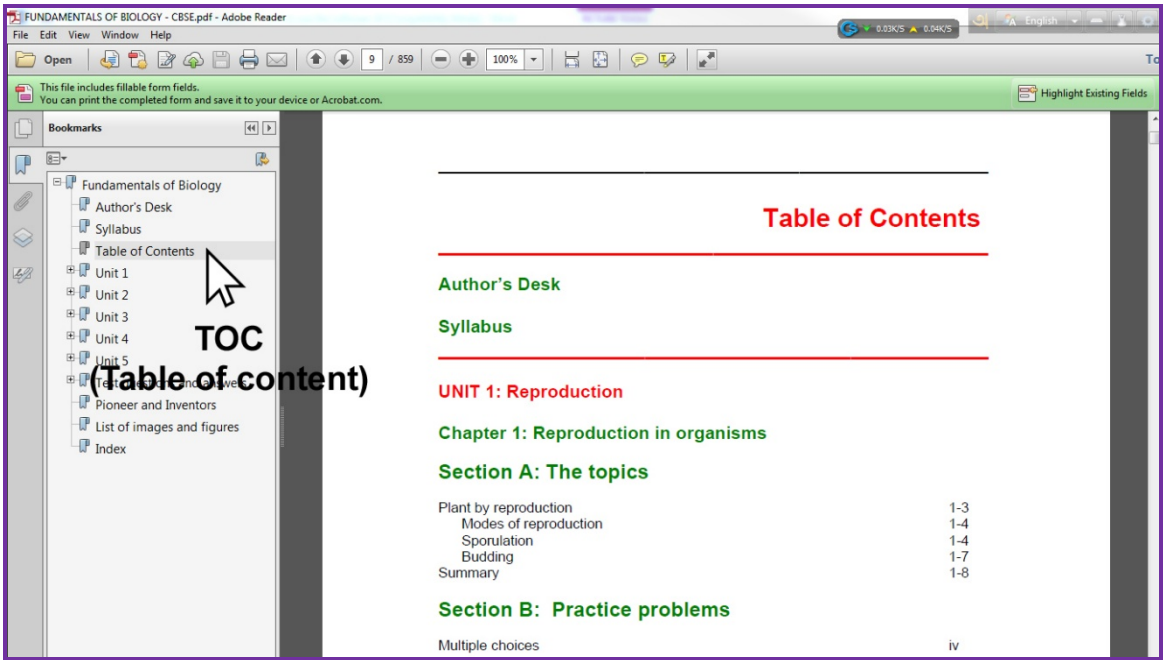
Right panel will display the current syllabus for the subject materials. Scroll down to see the current complete course syllabus.

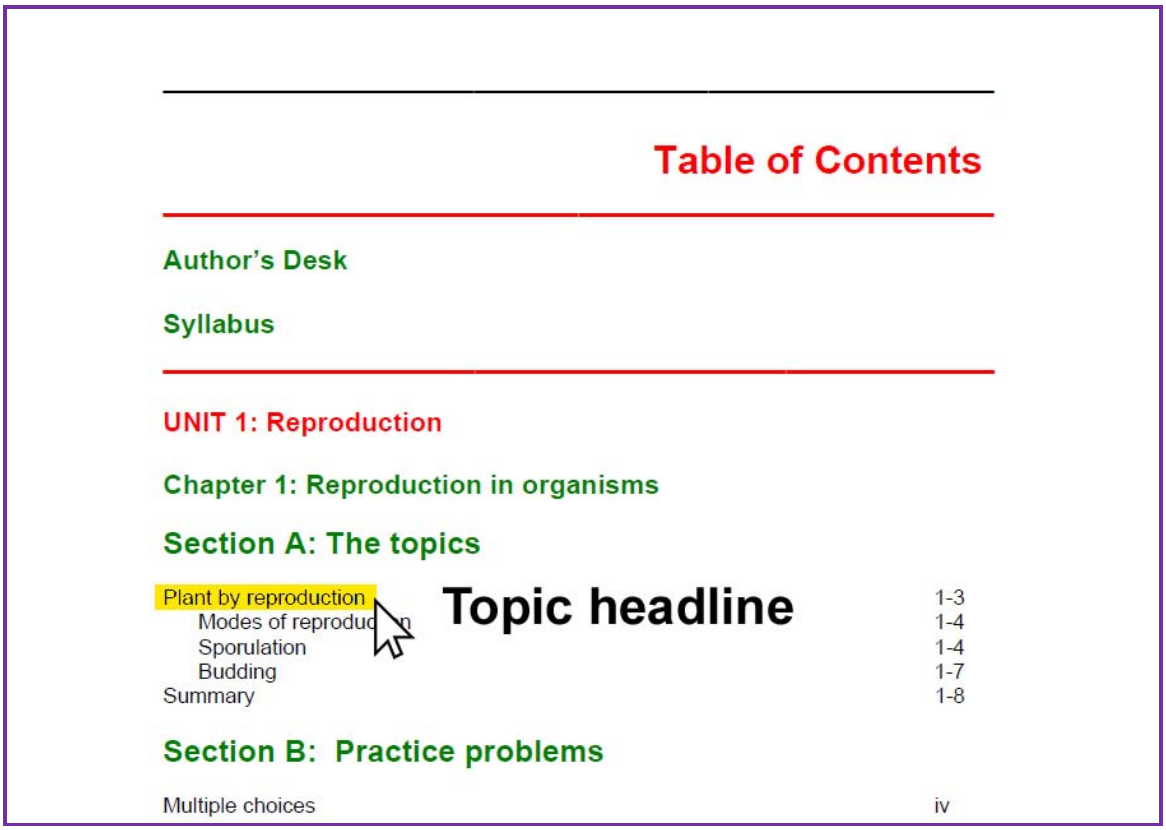


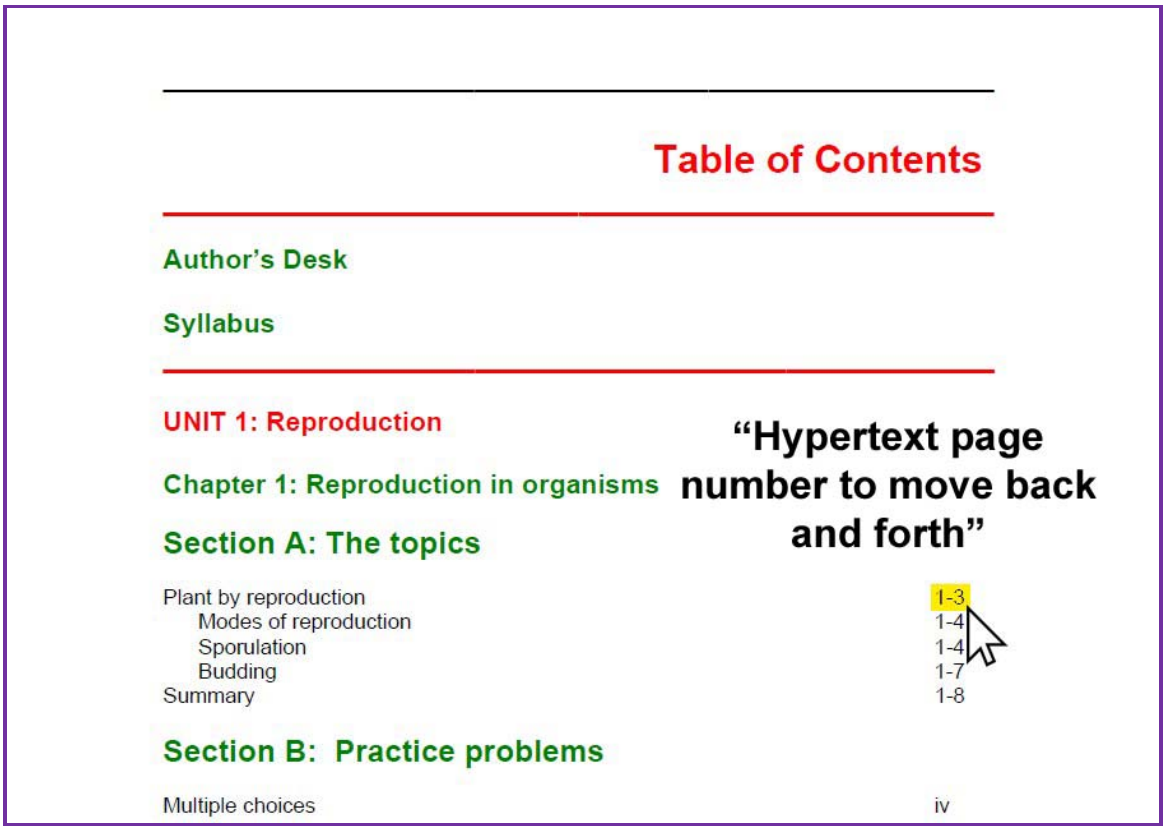
Slice 3: Table of contents

Although, TOC here generally follows the basic course guideline set by the course syllabus, yet it goes above, and beyond what it is called for. Clicking this heading will unfold various section/subsection headlines, and corresponding

pages (see further discussion below). Clicking on the page number or the topic headlines user can navigate quickly through the total contents.

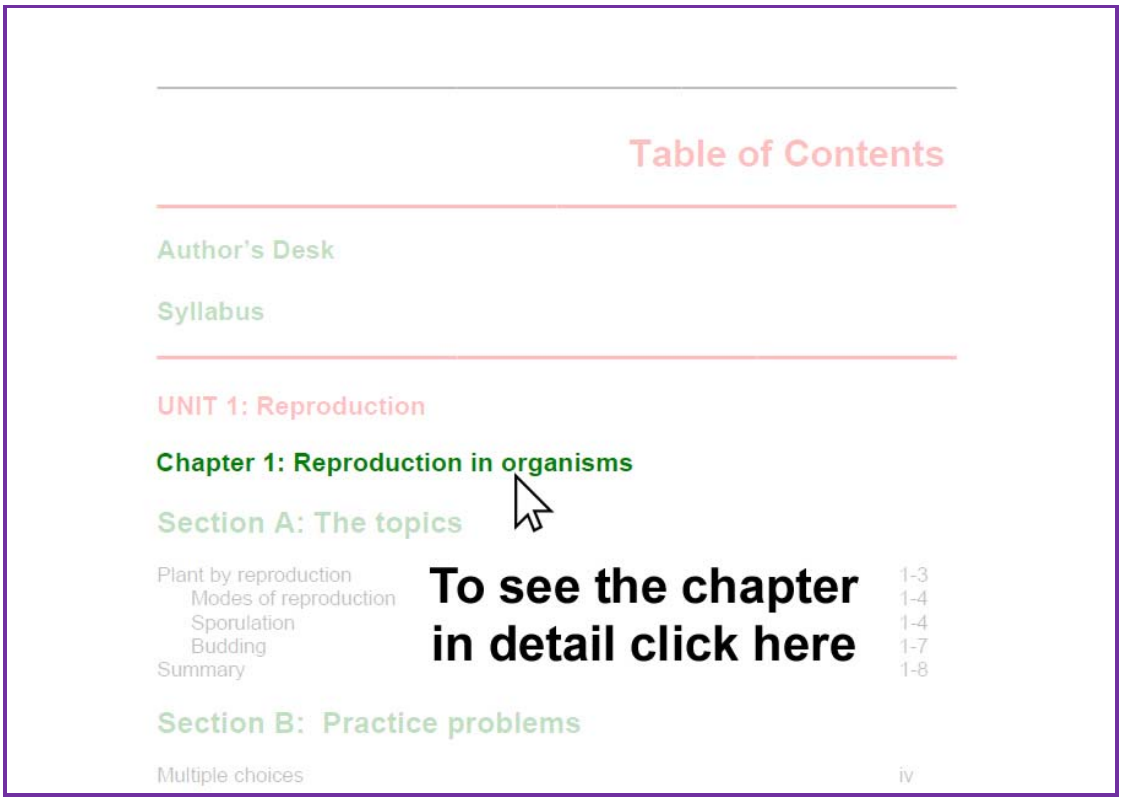




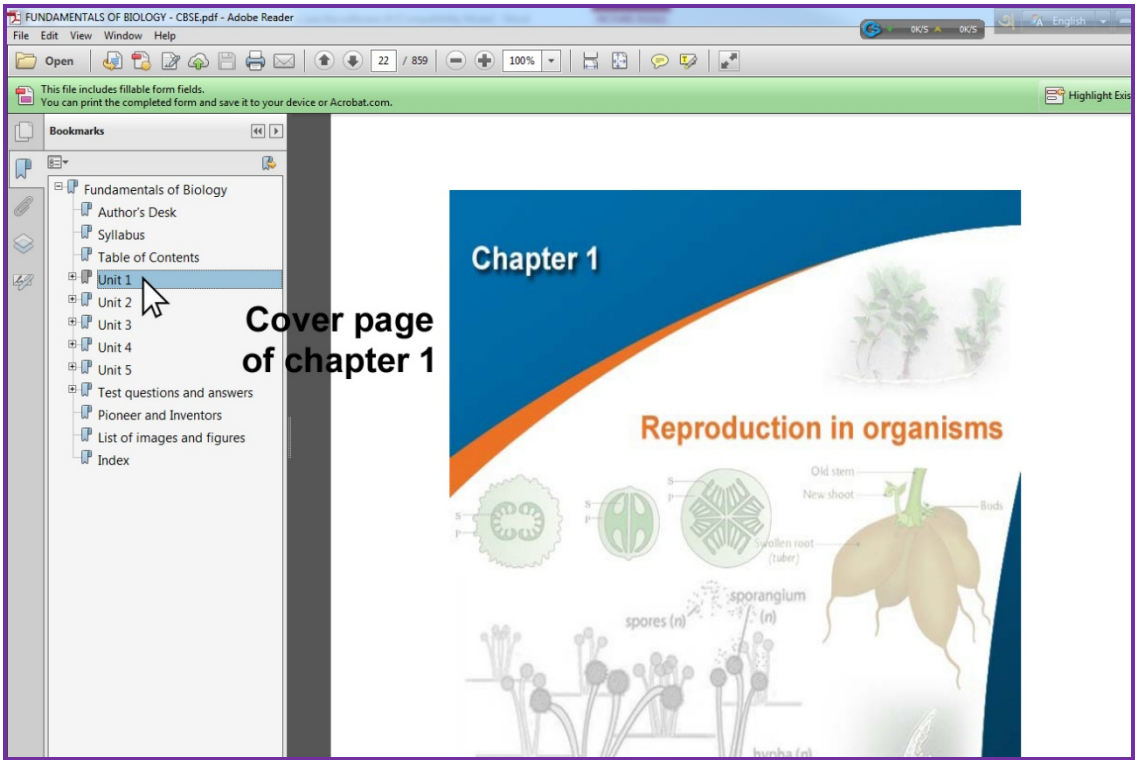


Slice 4: Viewing a chapter/unit/section

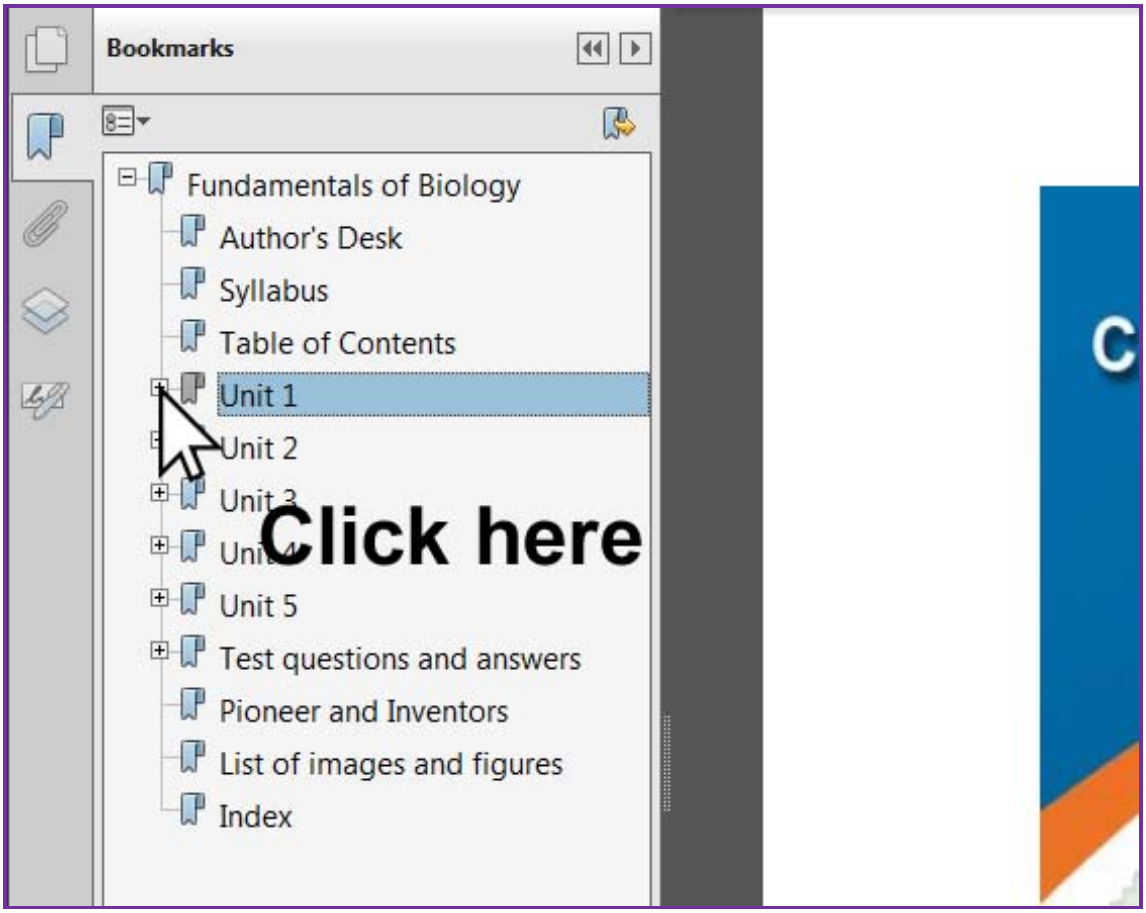
As we mentioned in previous slice here it shows how to go to a particular chapter or unit quickly. Click any chapter/unit name or the associated page number shown in the list.



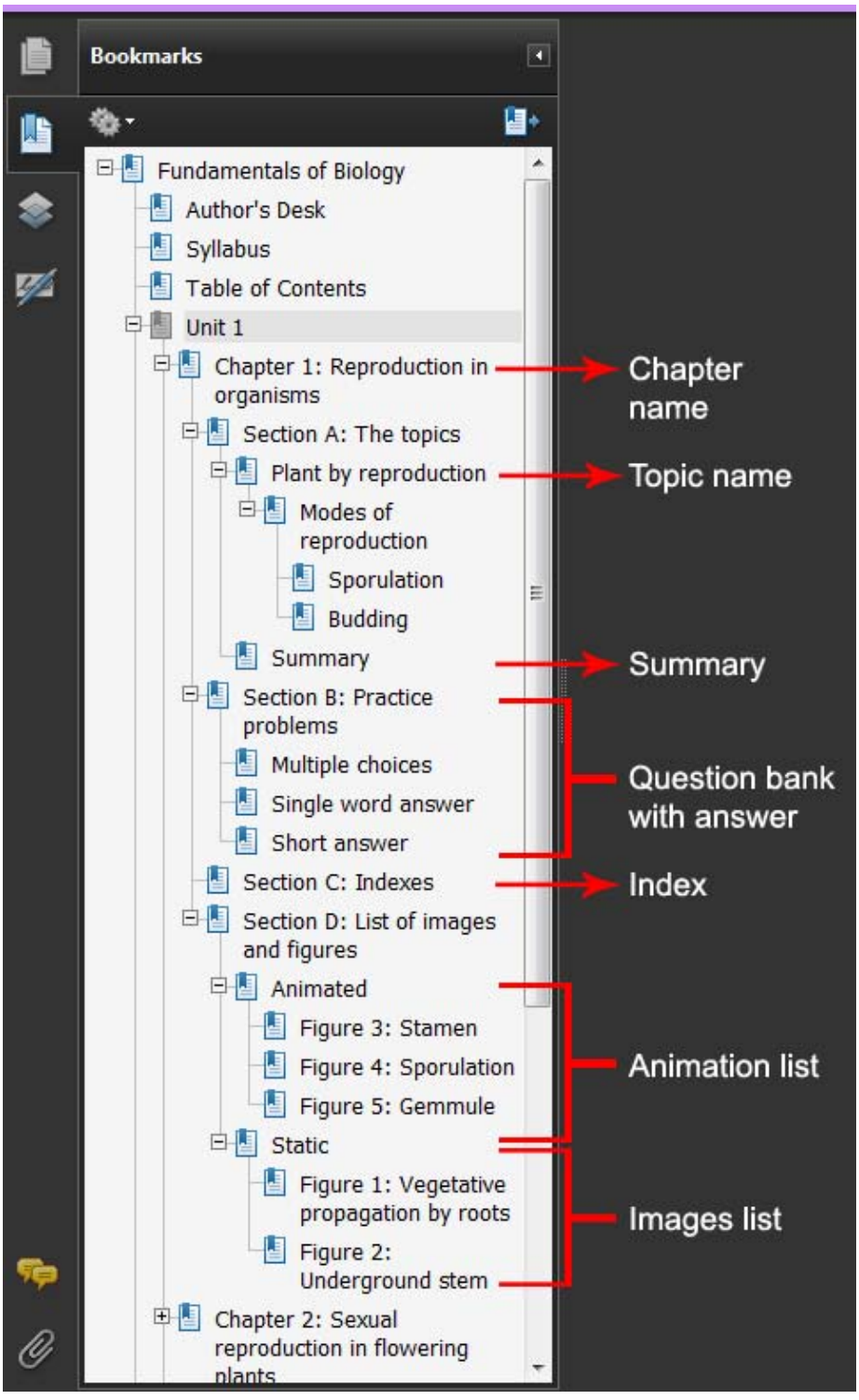
Incidentally, this location in the document can also be arrived from any previously saved bookmark of this same page location.



Click ‘+’ sign to unfold folder in details underneath. ‘-‘ in front of the chapter/unit name will fold sections or subsections inside that chapter or unit.



For example, when unfold a ‘+’ sign (shown below) details topic name, summary, multiple choice, short and long question with answer, indexes, list of the images, animations, etc.


Bookmarks
Fundamentals of Biology
Author's Desk
Syllabus
Table of Contents
Unit 1
Chapter 1: Reproduction in organisms
Section A: The topics
Plant by reproduction
Modes of reproduction
Sporulation
Budding
Summary
Section B: Practice problems
Multiple choices
Single word answer
Short answer
Section C: Indexes
Section D: List of images and figures
Animated
Figure 3: Stamen
Figure 4: Sporulation
Figure 5: Gemmule
Static
Figure 1: Vegetative propagation by roots
Figure 2: Underground stem
Chapter 2: Sexual reproduction in flowering plants
Chapter name
Topic name
Summary
Question bank with answer
Index
Animation list
Images list

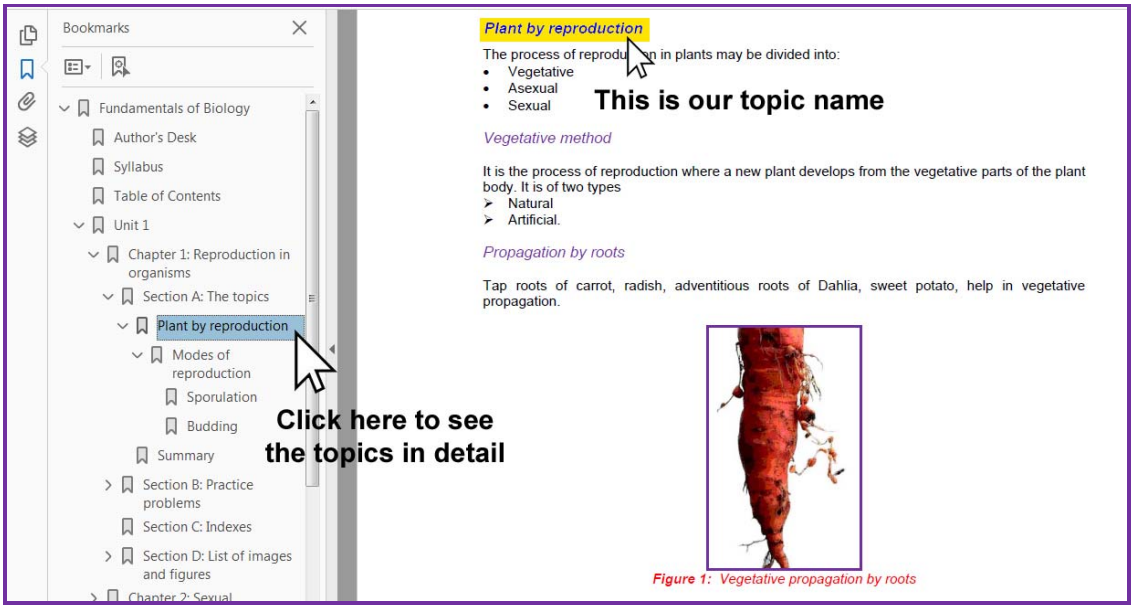
Dissecting the contents

The body of the main courseware is divided into five broad segments. These are,

- Main course (identified by topic name)
- Summery
- Practice problem
- Index
- Image and animation list

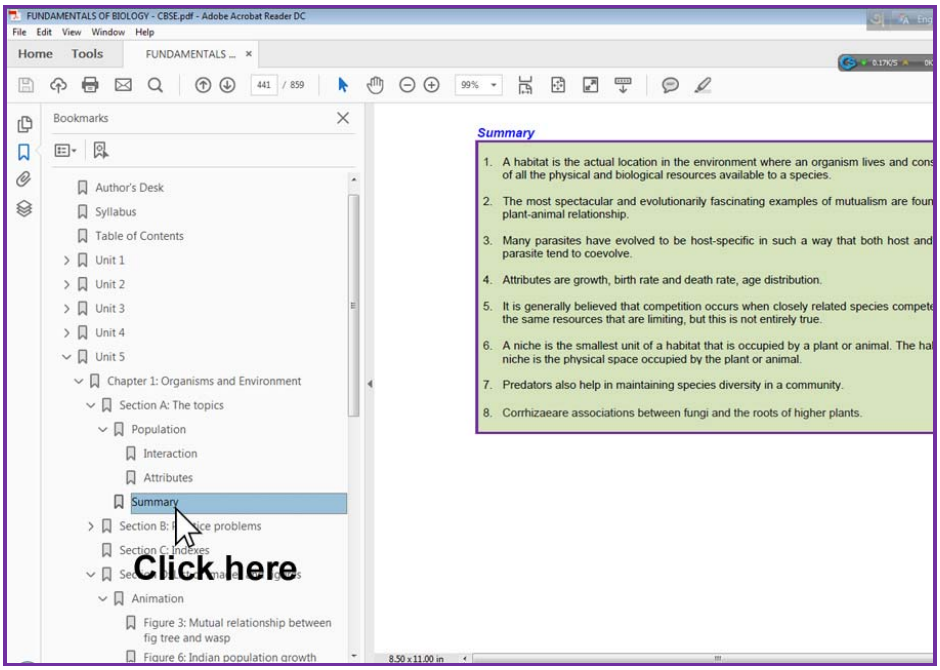
➢ *Topic name*

A chapter/unit contain more topics which we presented in text with the help of images and animations. Here we present how to see the topic in detail.



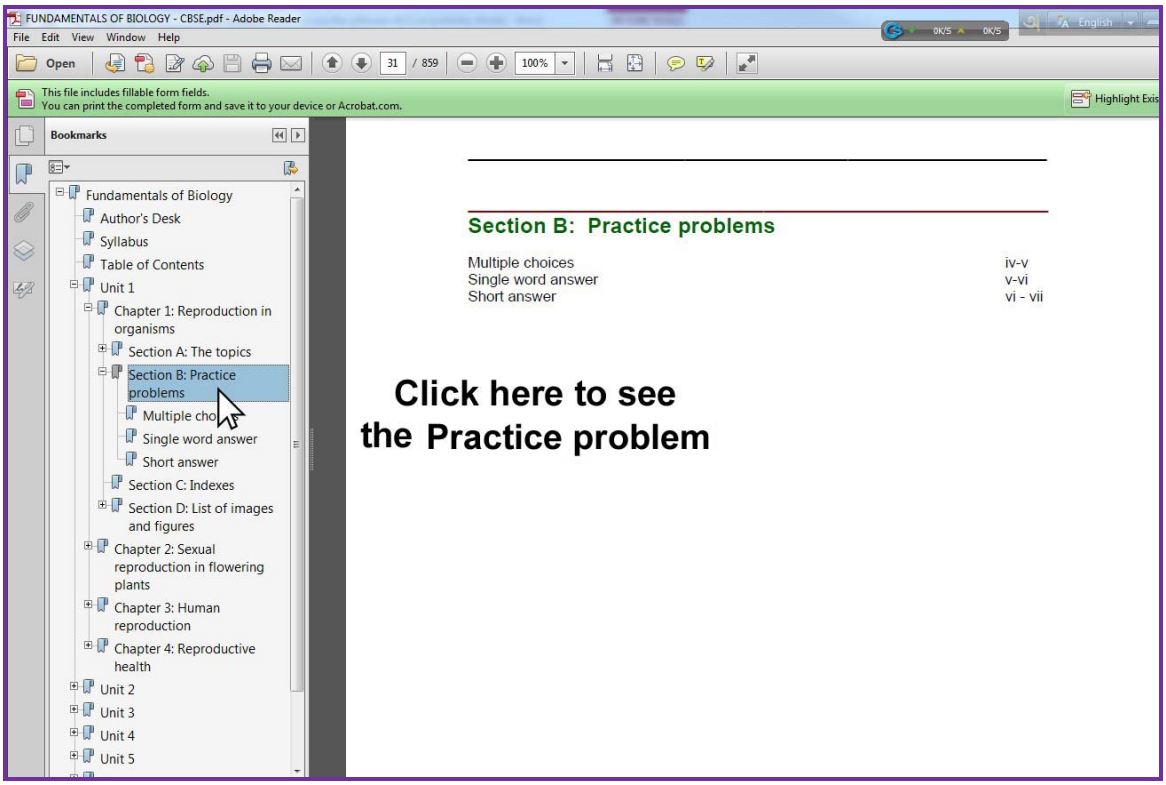
➢ *Summery*

This section contains the key bullet point summary of the complete course works. This appears at the end of chapters/units.

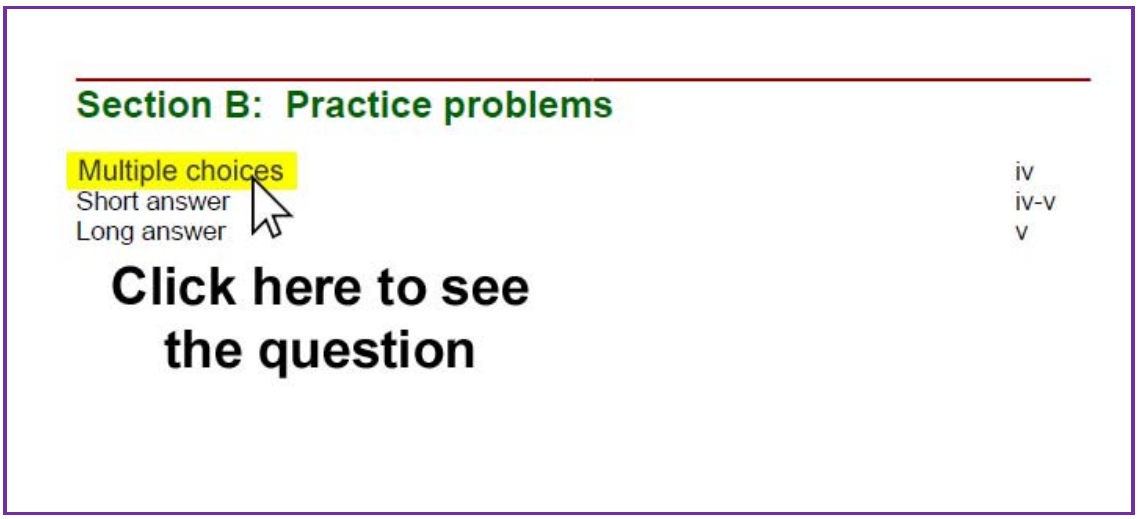


➢ *Practice problem*

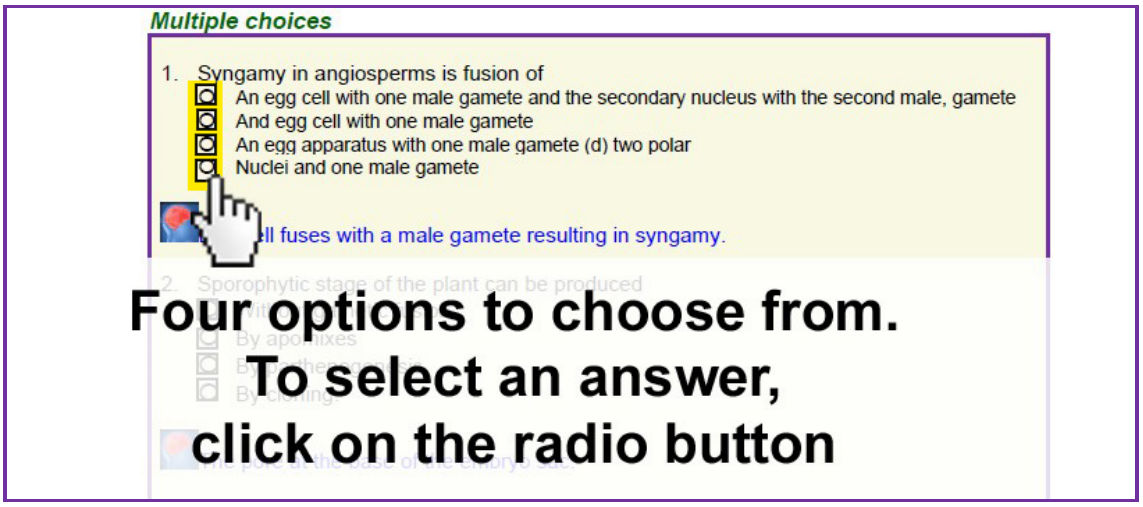
Need some practice after a long journey thru the dense contents of the chapters, see how to find the Q and A?

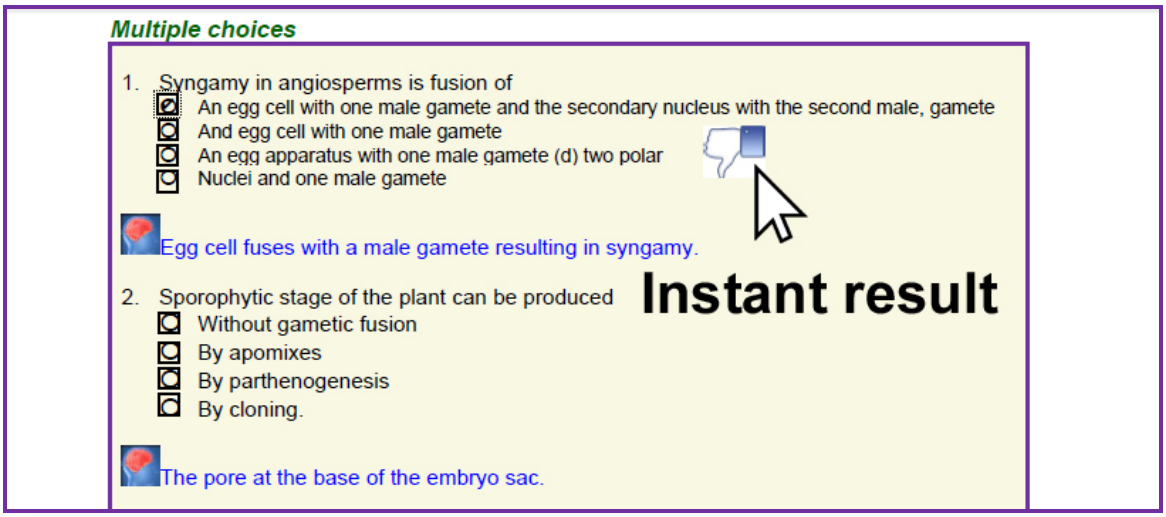


Click any option to see the questions.

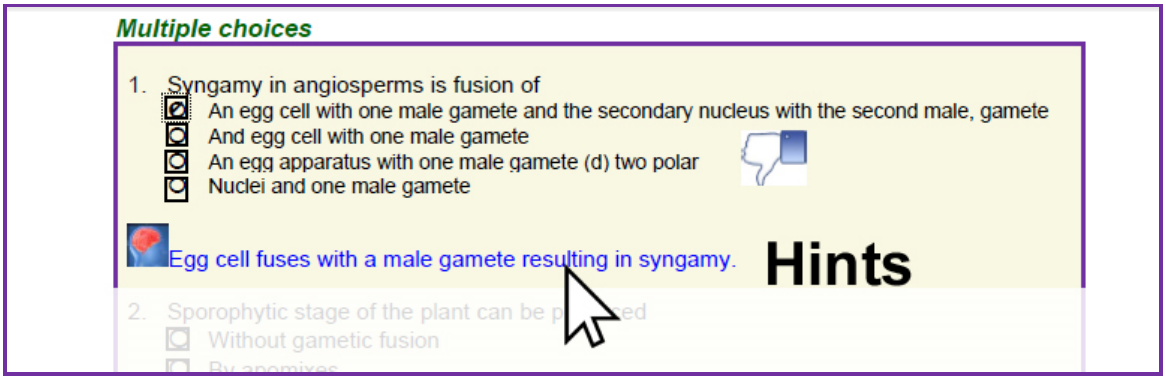


Multiple choice question has four options to select from. Select an answer, and see the result instantaneously.



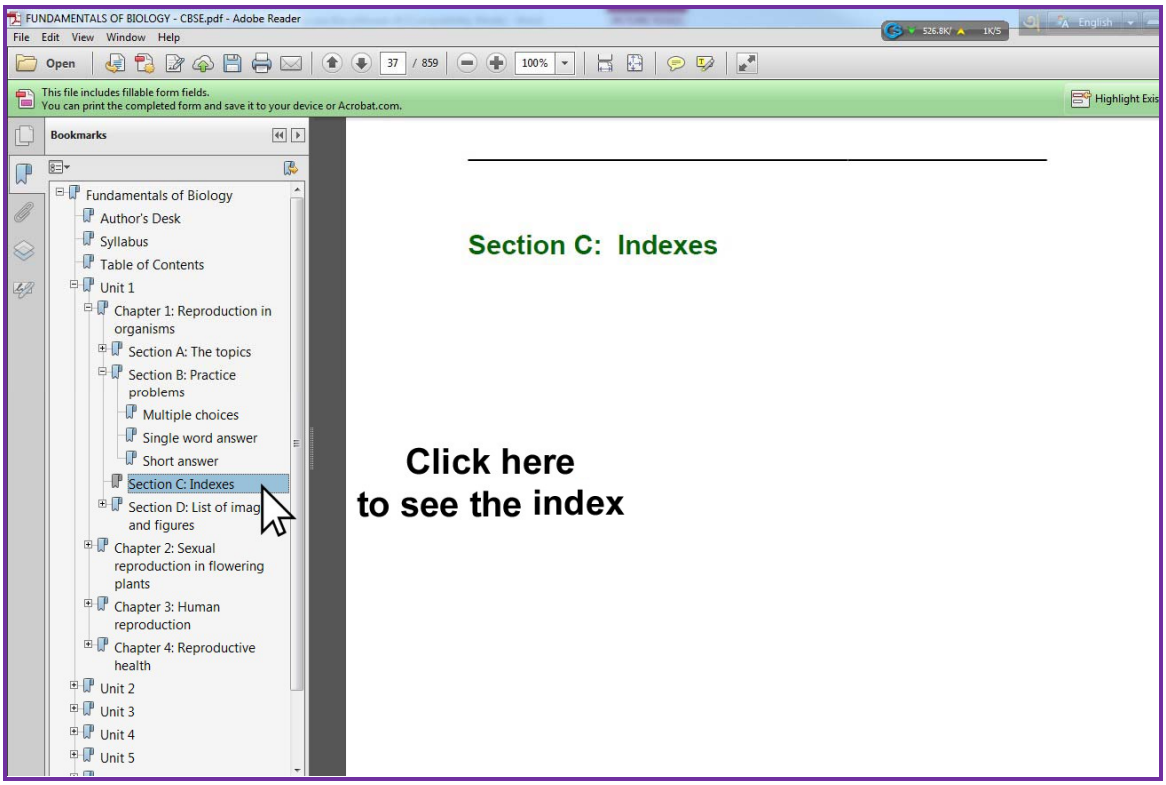


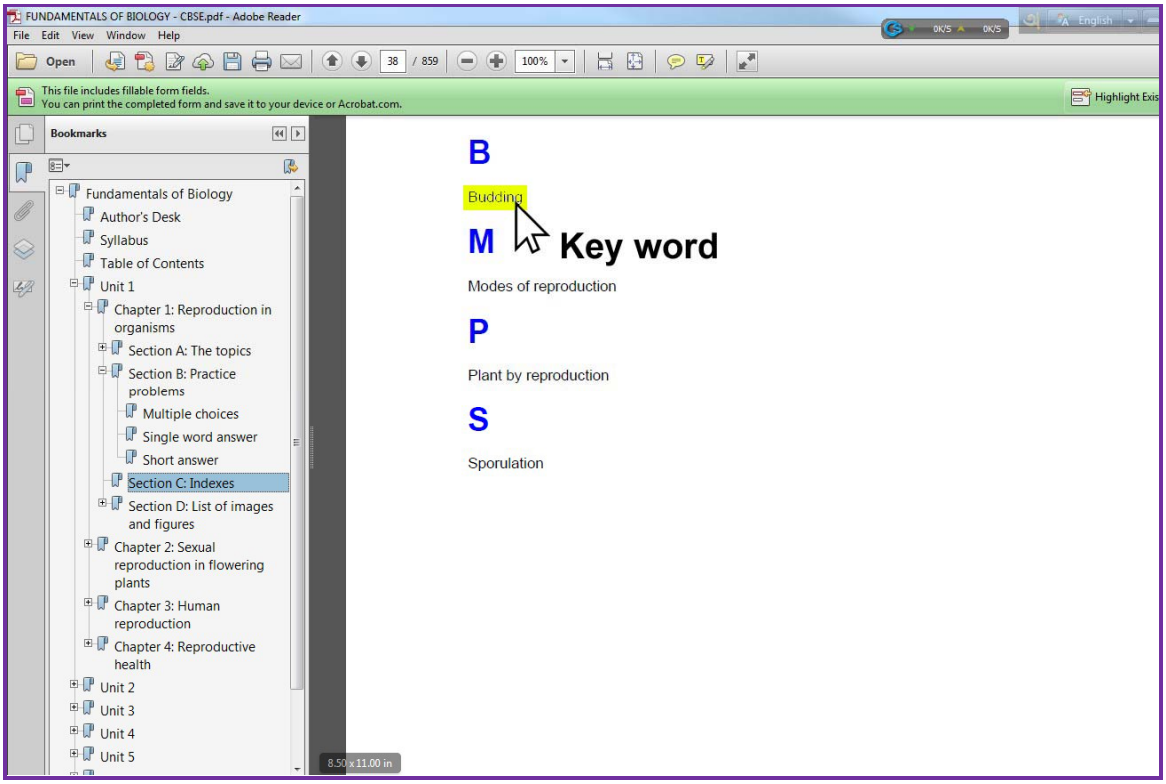
It will also provide hints on the correct answer.



- **Index**

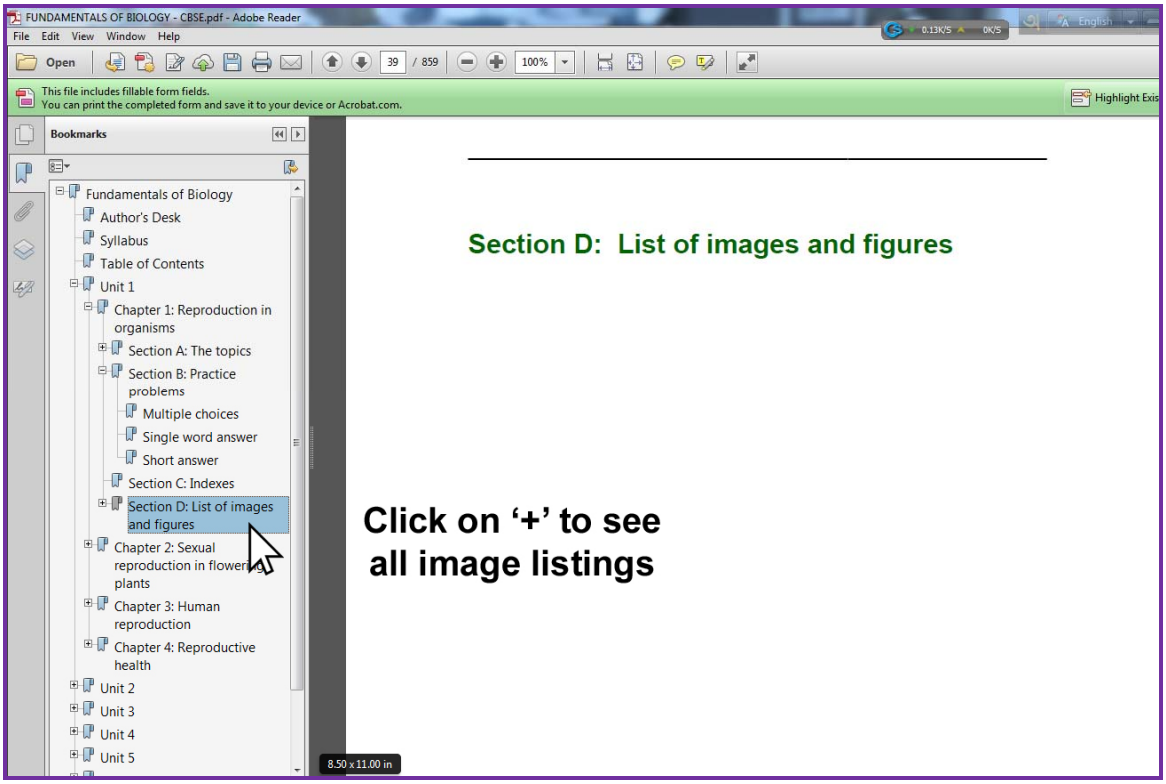
Important key words in this section can provide a quick search on the selected topics.



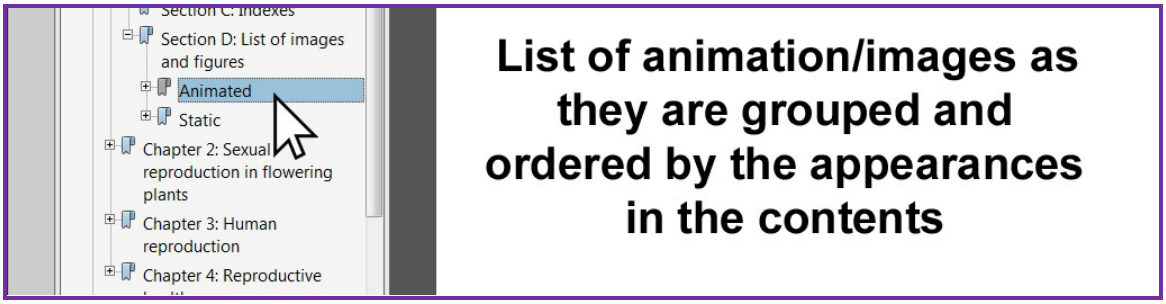


➢ **List of images and animations**

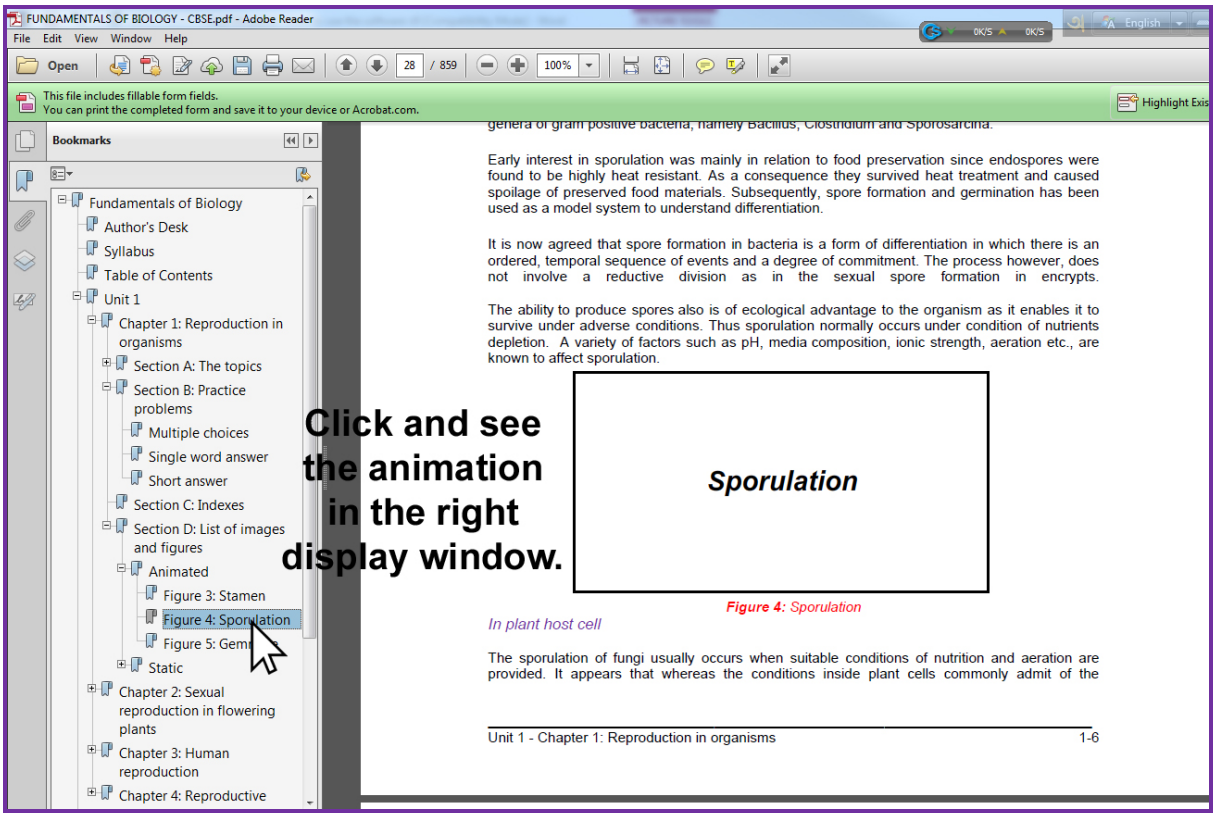
All animations, and images used in the contents are listed here chronologically. Clicking on '+' to unfold the complete list.



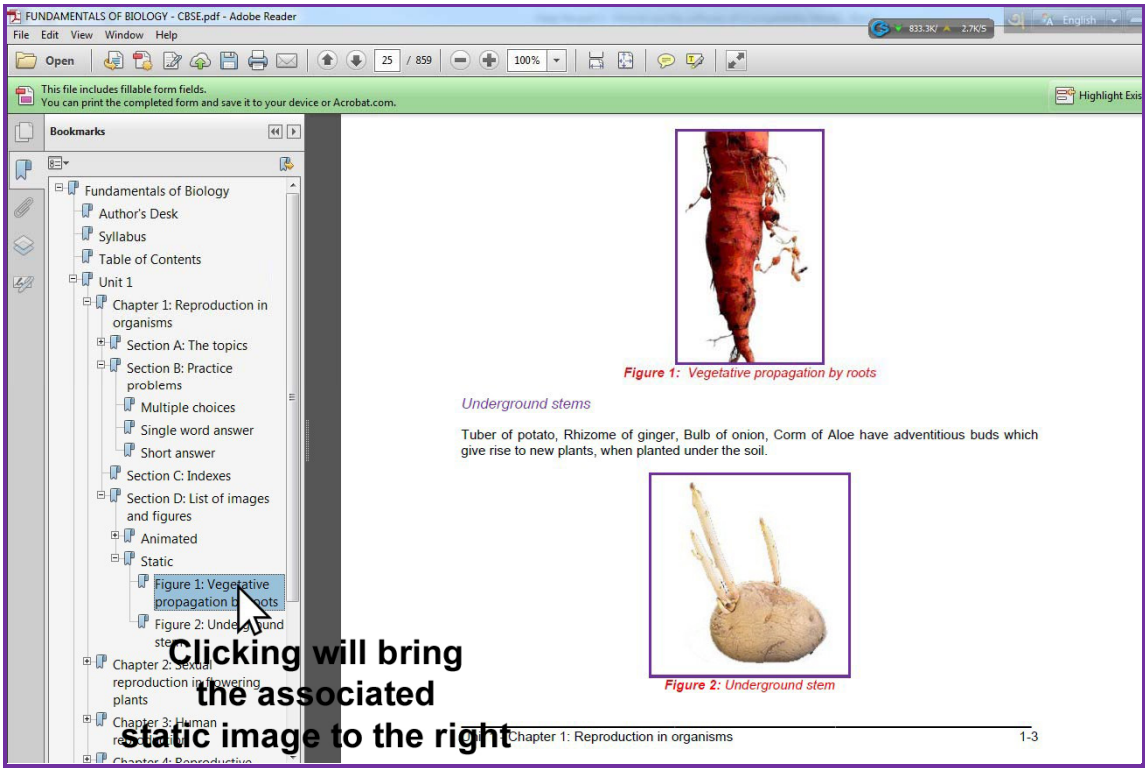
See the sample animations and images below:



Click any animation to see the selected animation in the right display window.

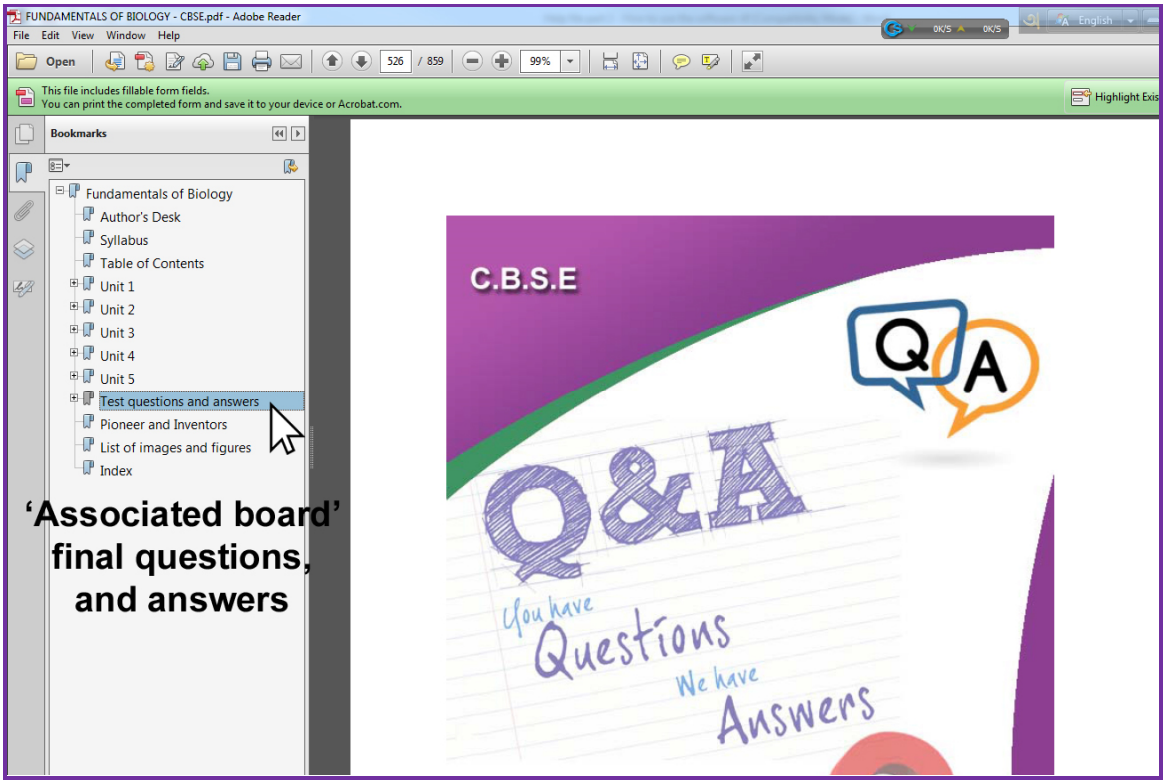


You can also see the static images similarly.

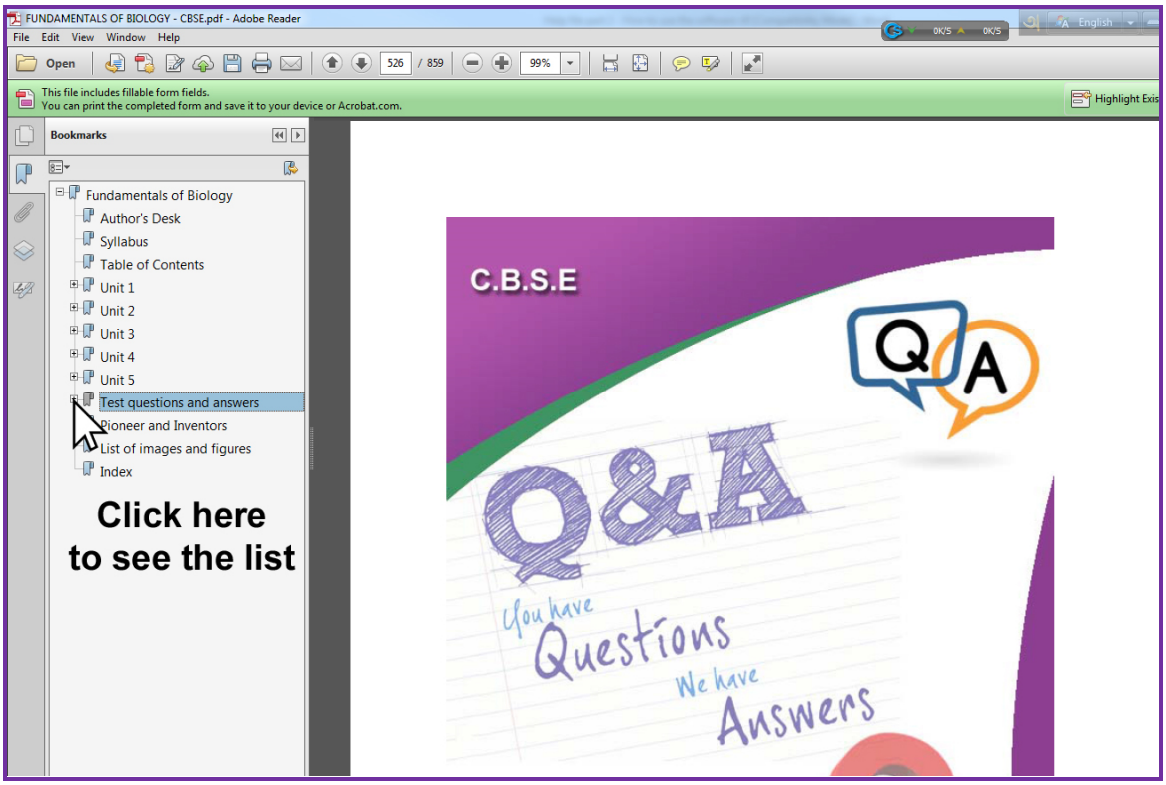


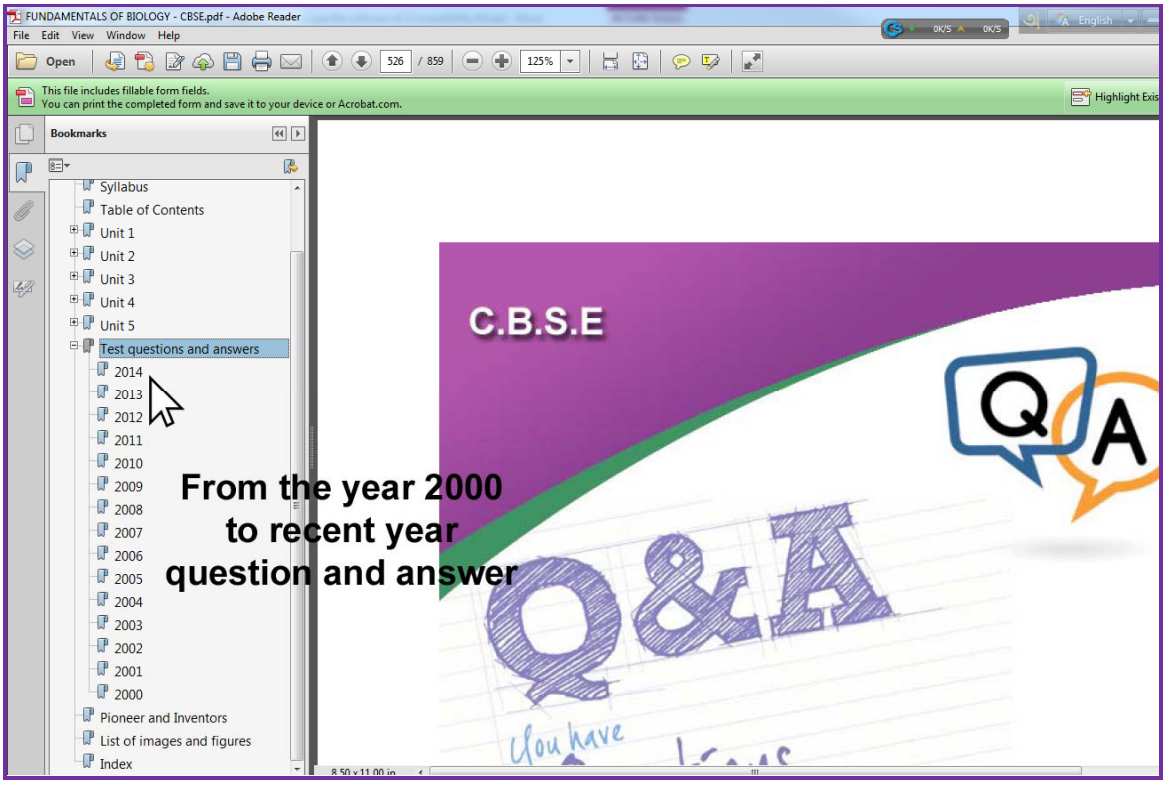
Slice 5: Test question and answer

In this bookmark, all past Board's test questions and answers are listed chronologically. In some cases, when the topics for the questions are out of the current syllabus, due to relevancy only questions are provided without any answer.

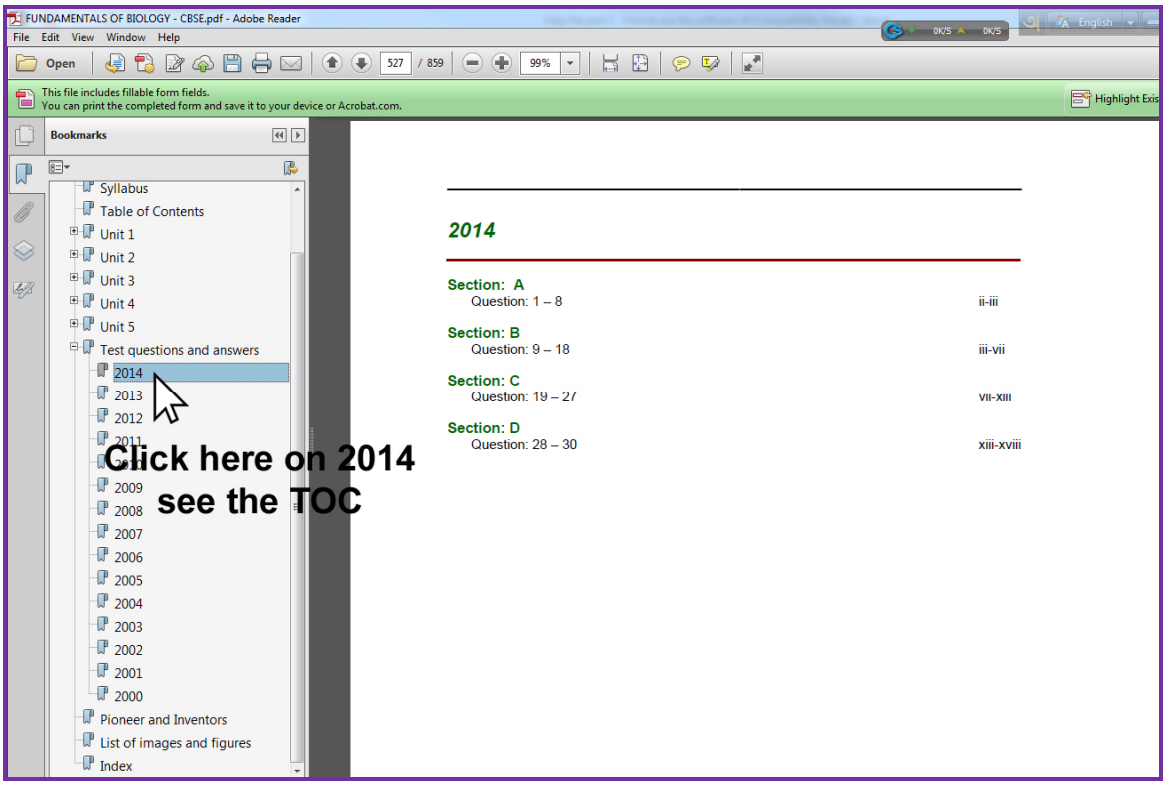


Click '+' sign to unfold question with answer (where relevant) form the year 2000 onwards.

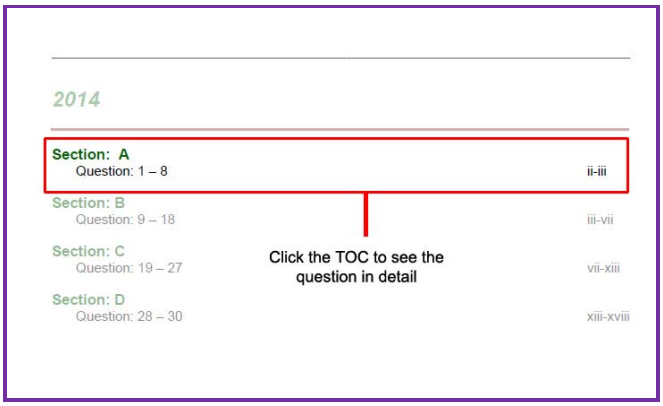

FUNDAMENTALS OF BIOLOGY - CBSE.pdf - Adobe Reader
File Edit View Window Help
Open
526 / 859
99%
This file includes fillable form fields.
You can print the completed form and save it to your device or Acrobat.com.
Highlight Exis
Bookmarks
Fundamentals of Biology
Author's Desk
Syllabus
Table of Contents
Unit 1
Unit 2
Unit 3
Unit 4
Unit 5
Test questions and answers
Pioneer and Inventors
List of images and figures
Index
Click here
to see the list
C.B.S.E
Q&A
You have
Questions
We have
Answers


FUNDAMENTALS OF BIOLOGY - CBSE.pdf - Adobe Reader
File Edit View Window Help
Open
526 / 859
125%
This file includes fillable form fields.
You can print the completed form and save it to your device or Acrobat.com.
Highlight Exis
Bookmarks
Syllabus
Table of Contents
Unit 1
Unit 2
Unit 3
Unit 4
Unit 5
Test questions and answers
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
2004
2003
2002
2001
2000
Pioneer and Inventors
List of images and figures
Index
From the year 2000
to recent year
question and answer
C.B.S.E
Q&A

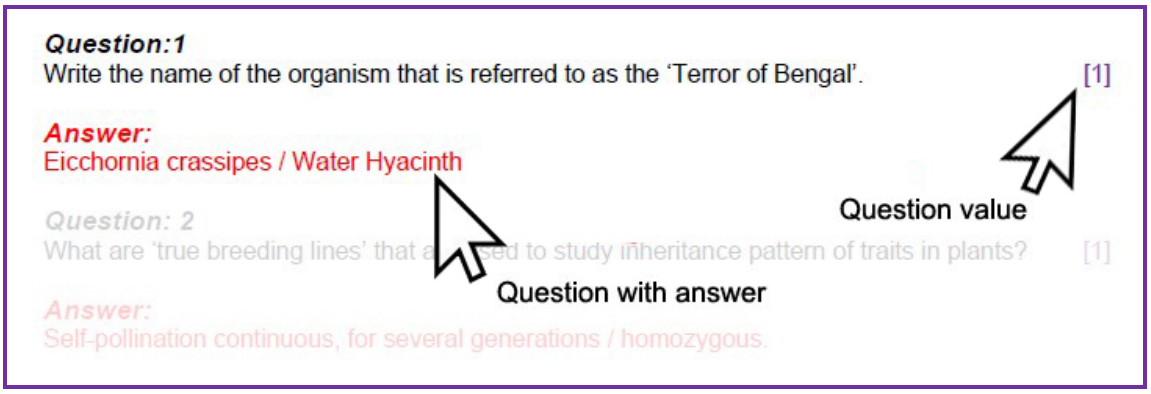
Drill down further, say for year ‘2014’, a list of tables of content of questions grouped by the section will appear.



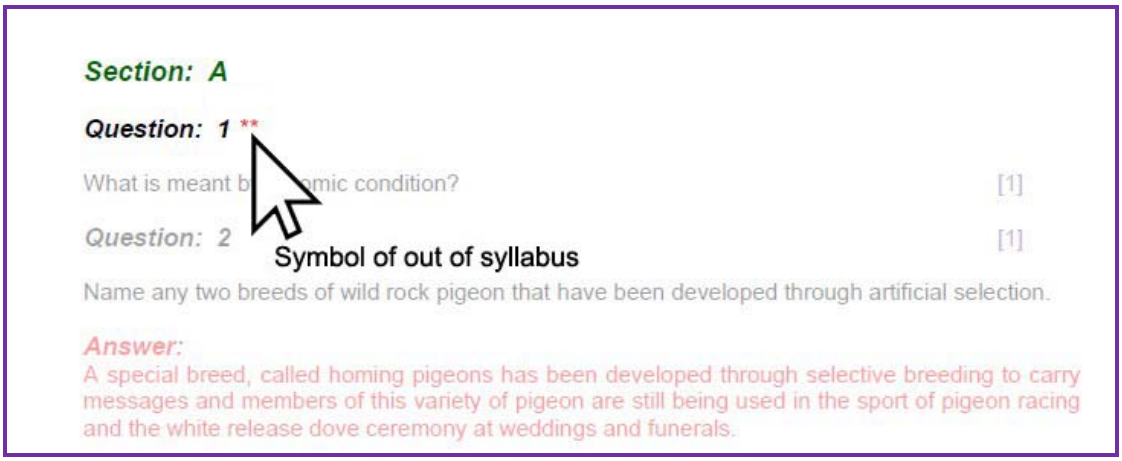
Click any section A or B or C or D to see the actual test question with answer.



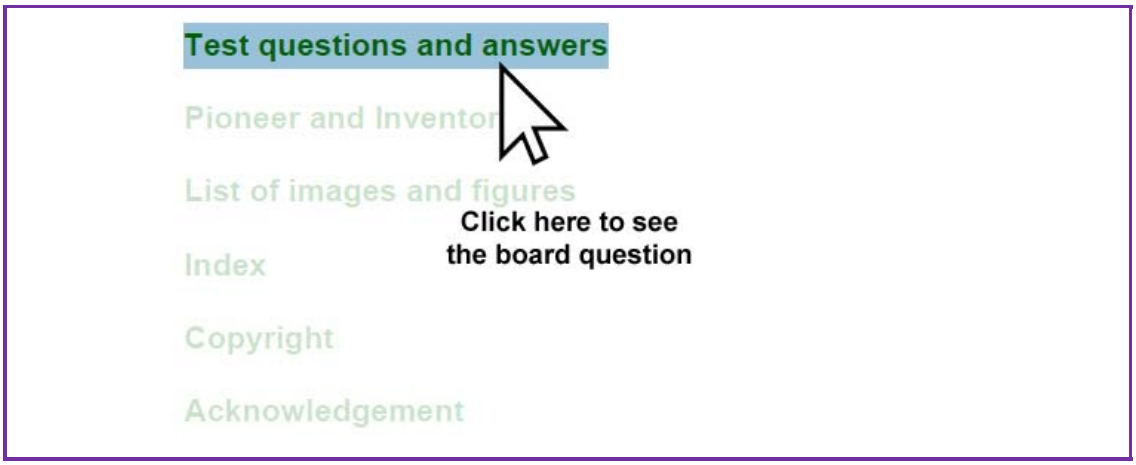
Here you can see the answer with their value:



When a topic is out of syllabus with the current syllabus, the questions are marked as '**' and no answer are available. If readers are still interested to get this answer, contact us (by email or thru our social media contact available from our website www.tiolisoftware.com or by phone) to get the missing answer.

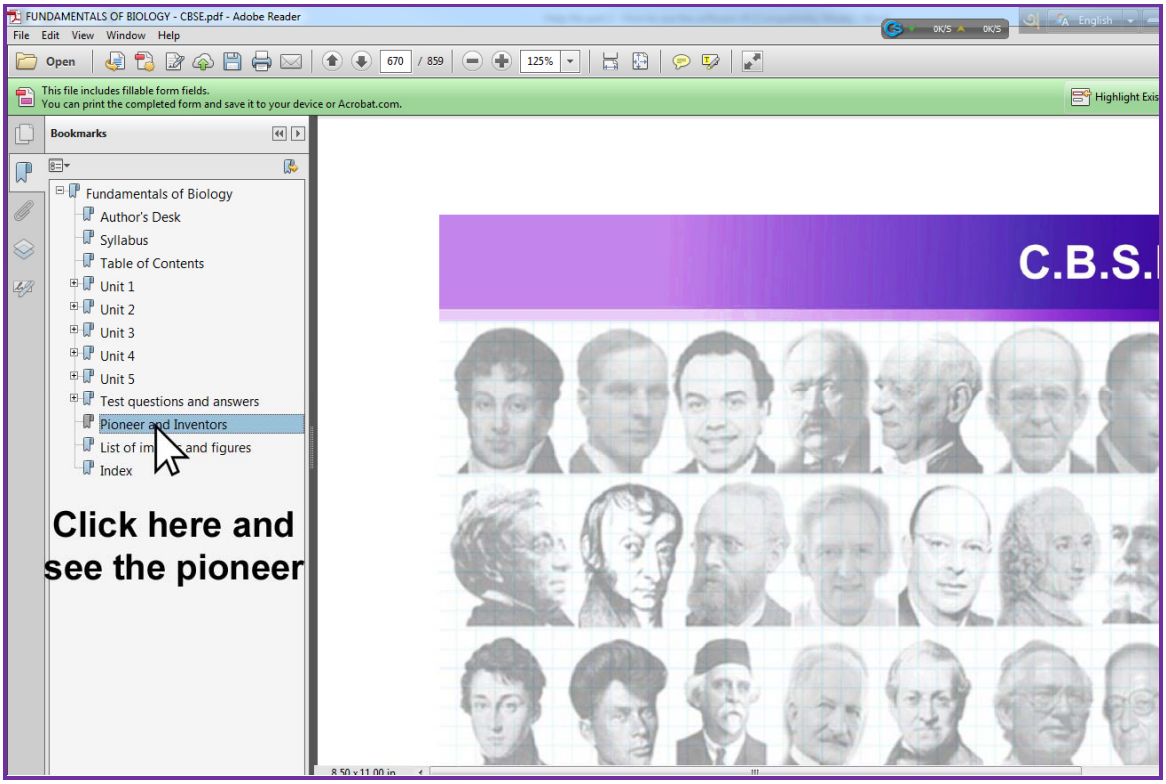


** You can also see this question with answer part from table of content:

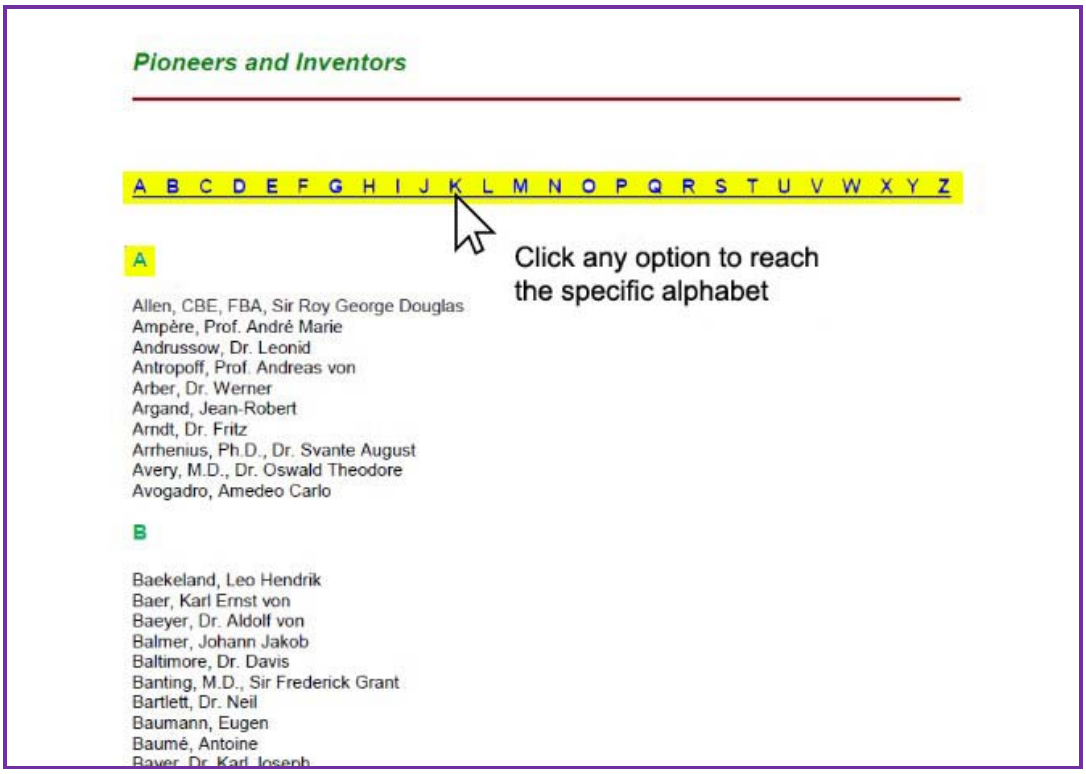


Slice 6: Pioneers, and Inventors

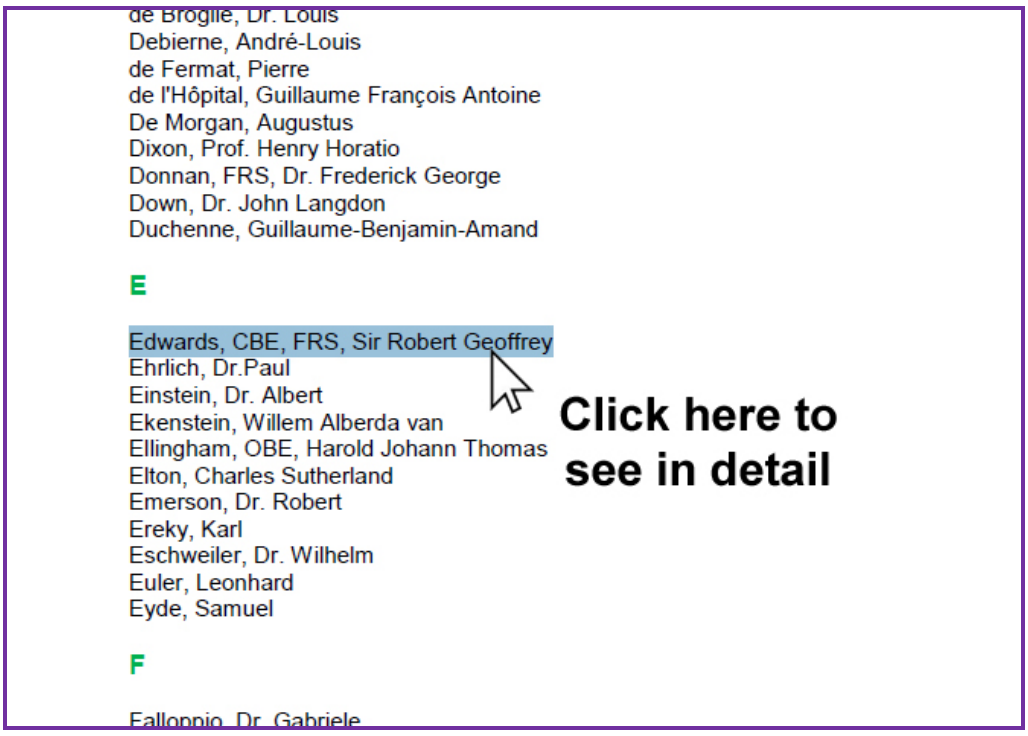
This section lists all the doyens and who's who of science regularly appear in any text book. This section list all those pioneers and inventors, who made the modern science, by providing the readers a brief descriptions on their bios and inventions.



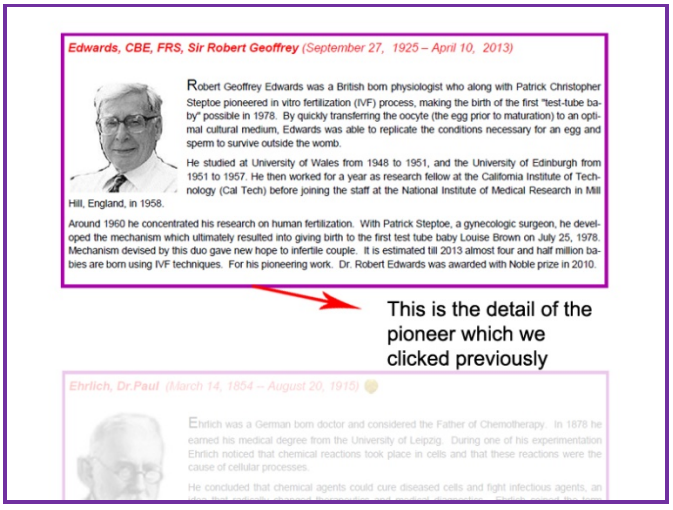
All names are indexed and listed in alphabetical order.



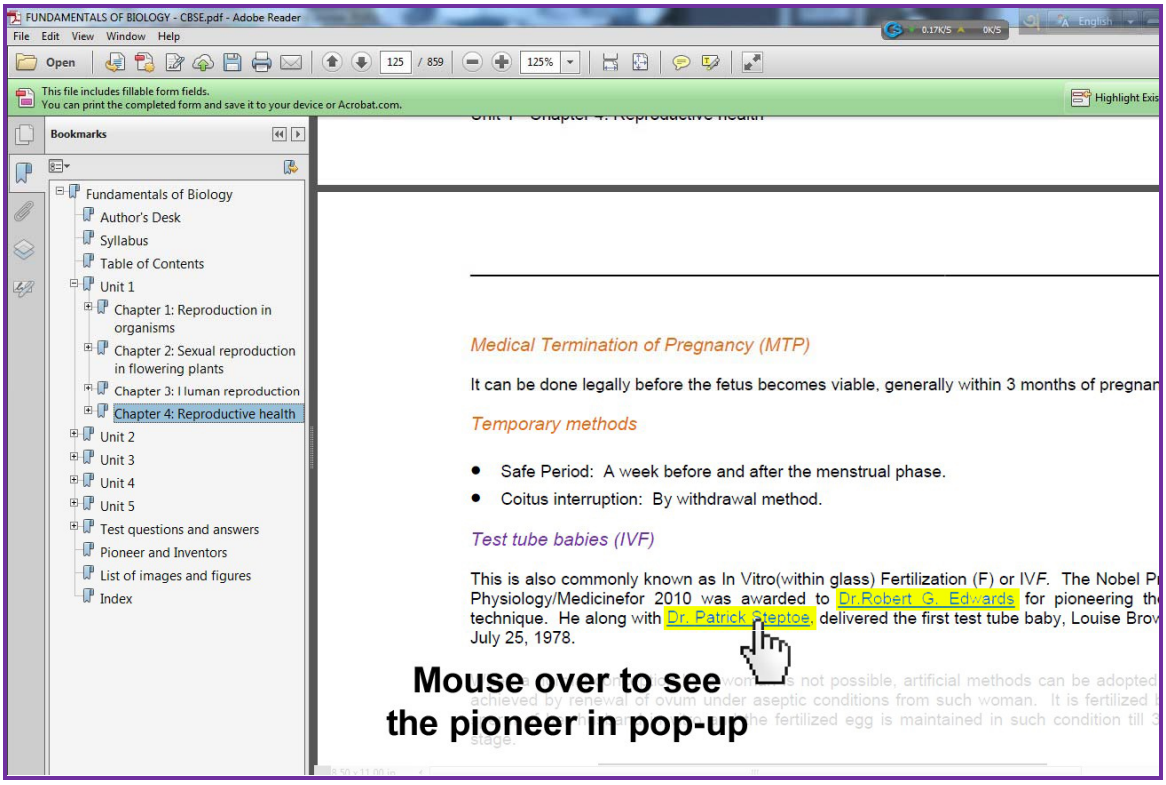
Click any name from the list to see the short bio of the selected scientist or inventor.



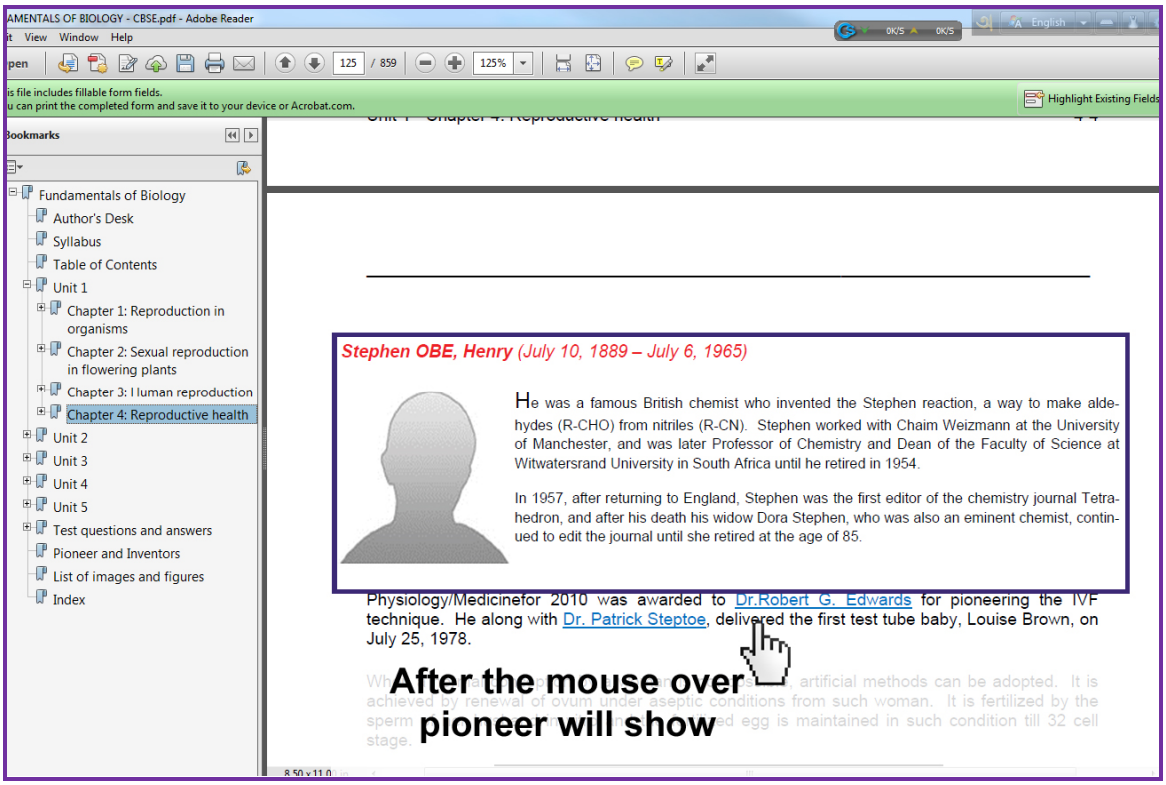
Clicking will bring out the details.



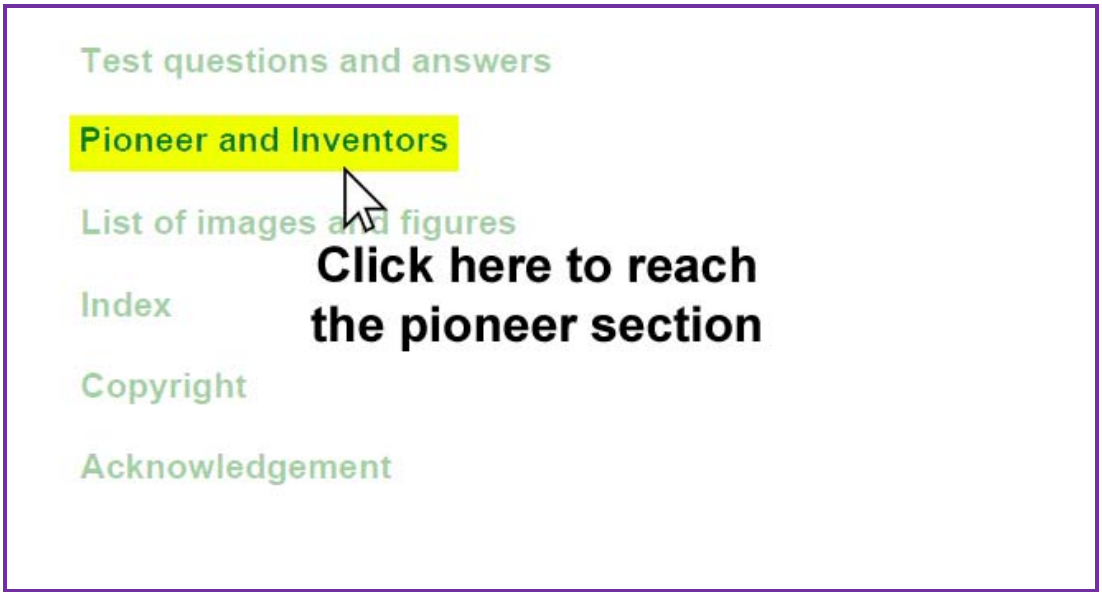
Incidentally, through out the contents all important pioneers and inventors name are hypertext. Mouse over on the name will pop up the same short bio in a small display window where readers are reading the contents.



Mouse over will see this:

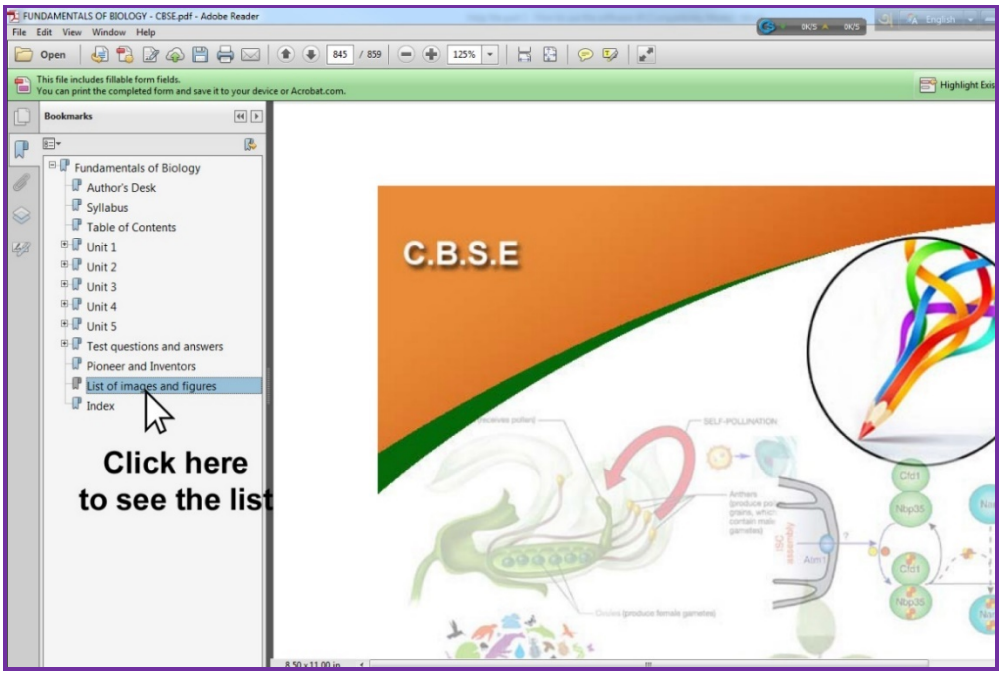


Incidentally, the complete list of this pioneer section is also directly accessible from the main table of contents.

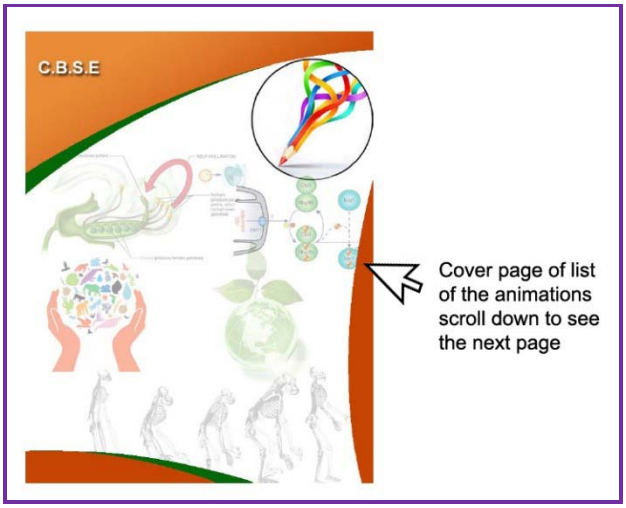


Slice 7: Images and figures

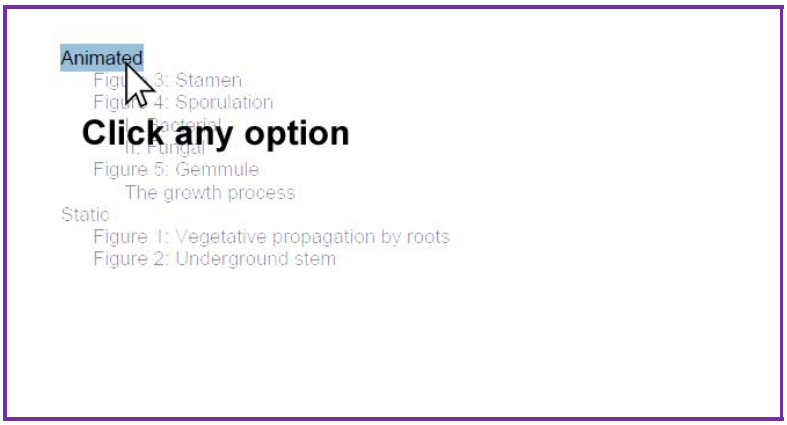
In this section you can see all the images and animations list.



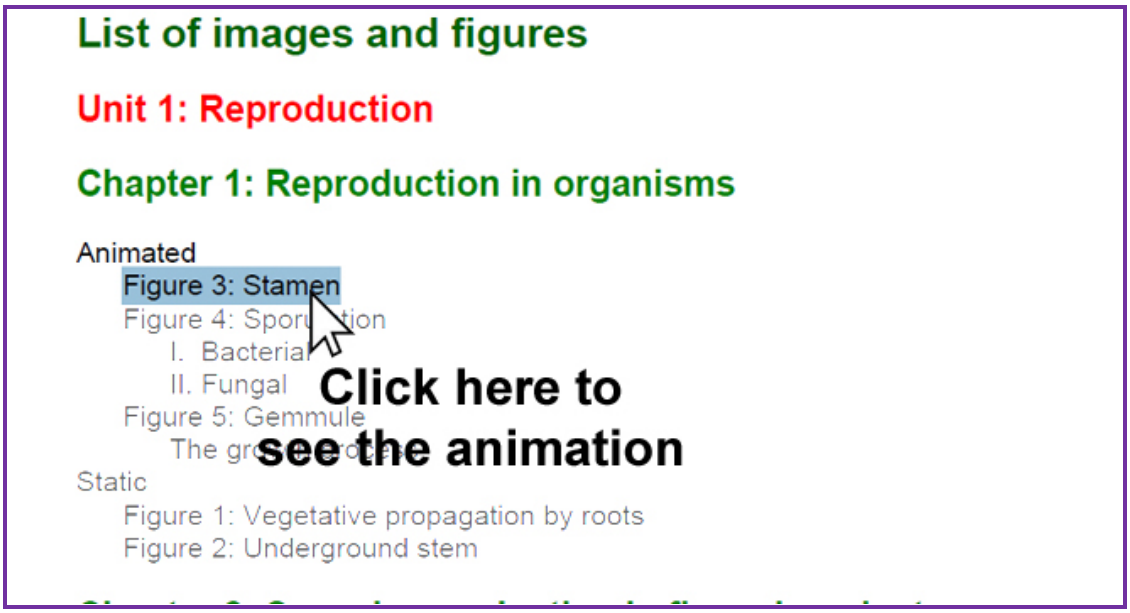
Right side can show this page scroll down and see in detail.



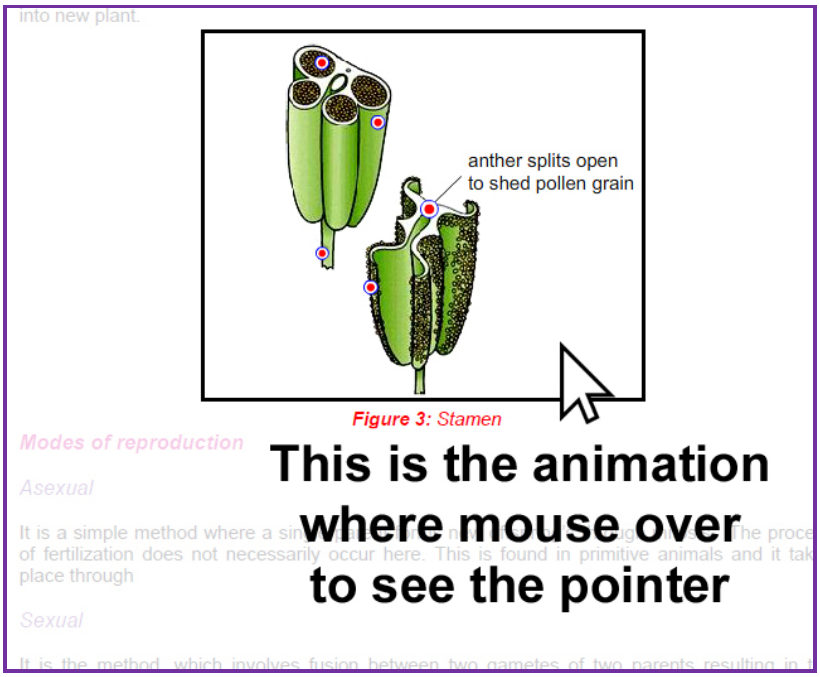
See this page, click any option whatever it may be animation or static images:



Click any animation to see this in detail.

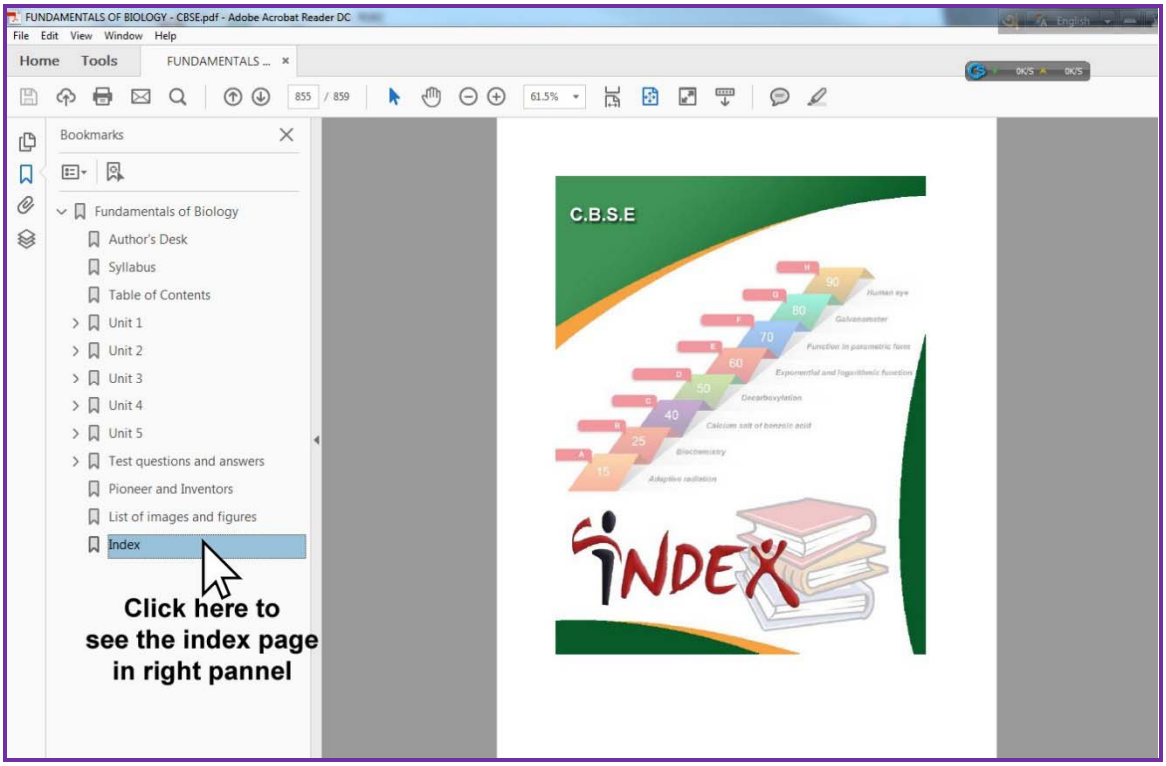


This is the animation here you can see in detail.

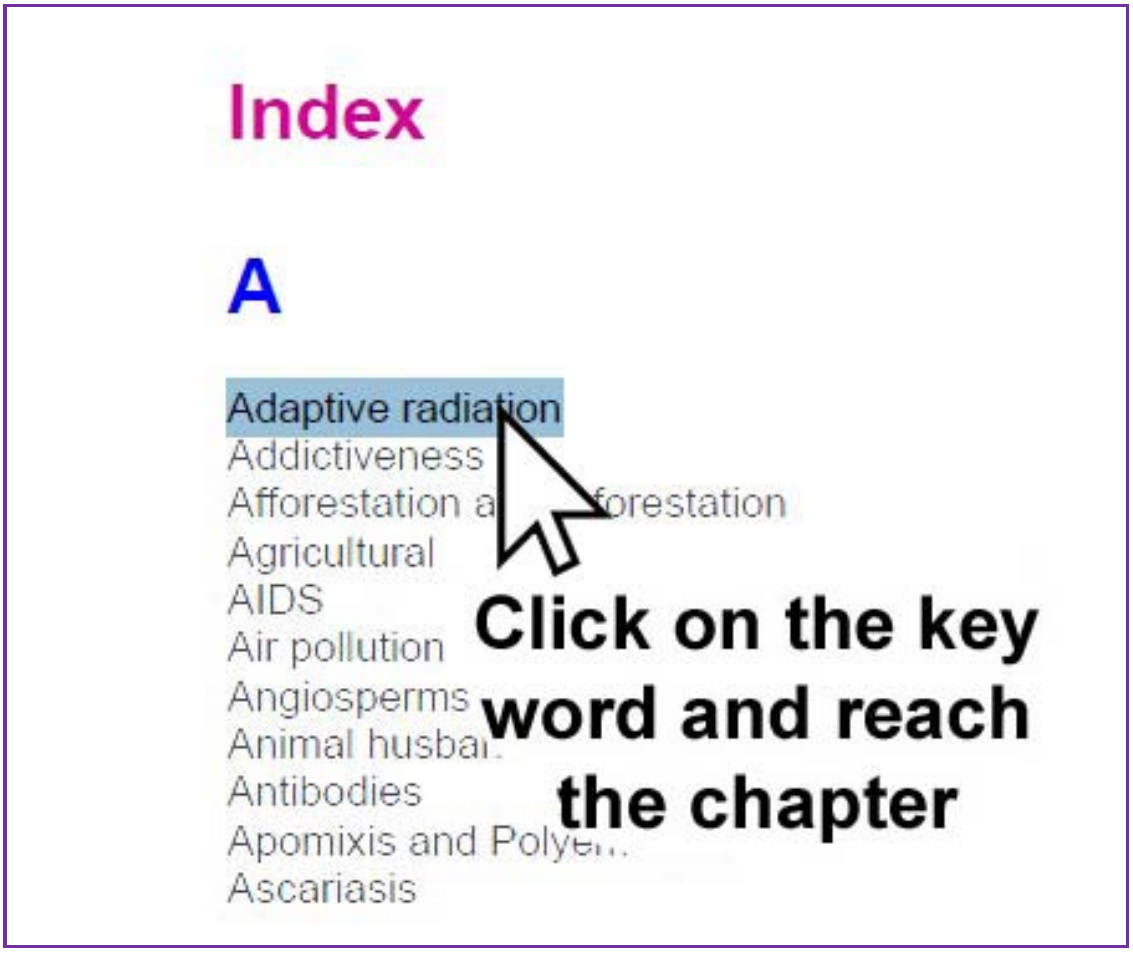


Slice 8: Index

All key words from the text content are listed in the section.



All key words / topics are hypertext and arranged in alphabetical order. Click any key word to see the definition in the and where it is used in the contents.



This is also separately listed in the main table of content.

Test questions and answers
Pioneer and Inventors
List of images and figures
Index
Copyright
Acknowledgement
Click here and see the index part in same way

Section B: Playing animation

There are two types of animations are available in this software, with or without sound. To start with click on to the name of the animation to view.

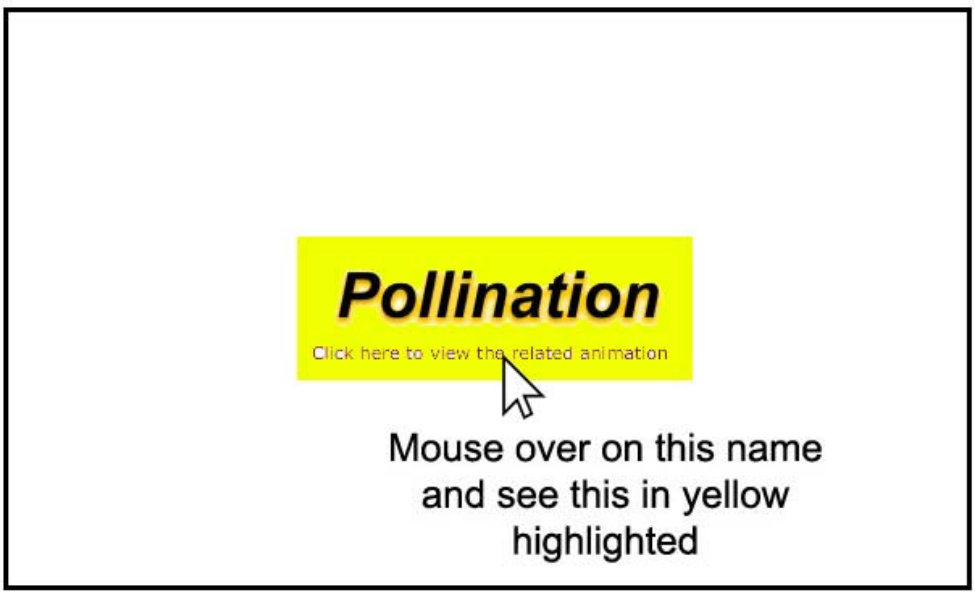


Figure 6: Pollination

In many cases a large animation is broken down to a easily understandable smaller animation and bundled under the single encompassing animation. In a two-panel display window left side shows the available list of playable animations (or the bundled animation, if any), and right side the displaying window.

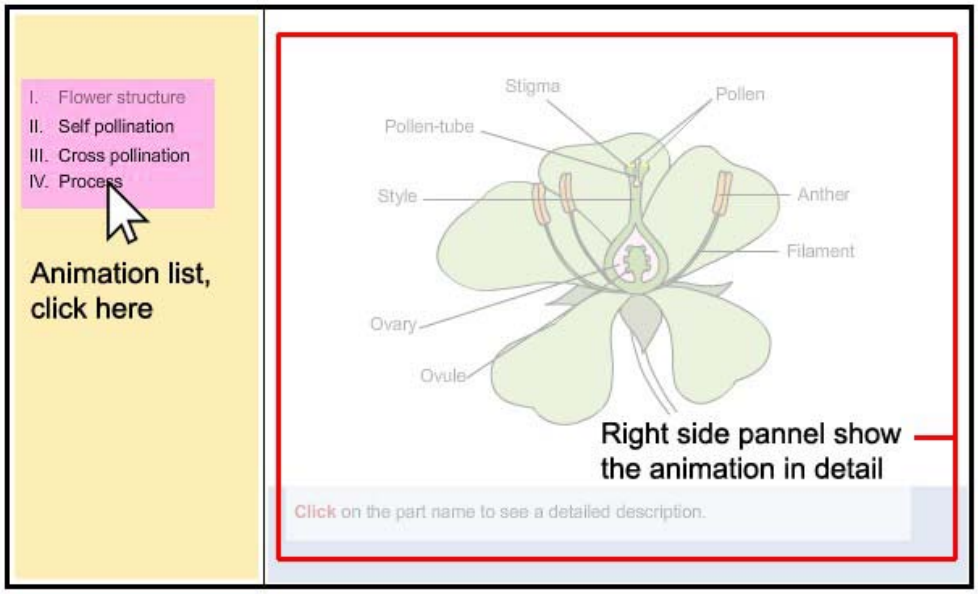
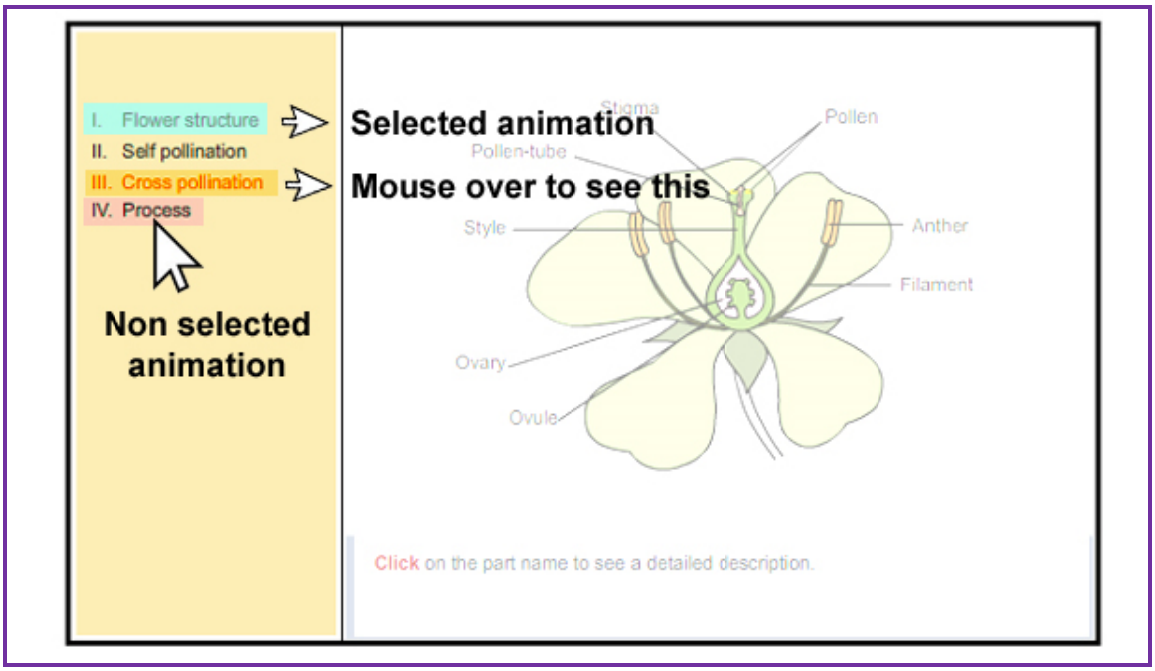


Figure 6: *Pollination*

Left panel actions

- When an animation is running, the name of that animation will have grayed out.
- Unselected or non-playing available animation name will appear as in normal fonts. Clicking on the available animation will immediately stop the currently playing animation, and load the selected animation to play.
- Mouse over to any animation title to see further details on that animation.



Right side animation detail.

Every animation will have three (without sound) or four (with sound) action buttons along with the running track at the bottom of the animation. Mouse over on the pointer on the running track can show the position and the time expired or left for the animation to run. The functions of these button can be described as below;

- Play – to play the animation press **Play**.
- Reset – while an animation is playing, pushing **Reset** will rewind the animation at the default start position to play the animation.
- Back – when press **Back** animation will rewind frame by frame.
- Sound – to control associated **Sound** for the animation. It can be muted or unmuted by the click on the sound icon. Single click on the sound icon will mute the sound. At mute state, there will be a cancellation bar across the sound icon show the muted <🔇> indicate sound is muted for the animation. Another click on the muted state will unmute the sound and the bar will disappear from the icon 🔊.

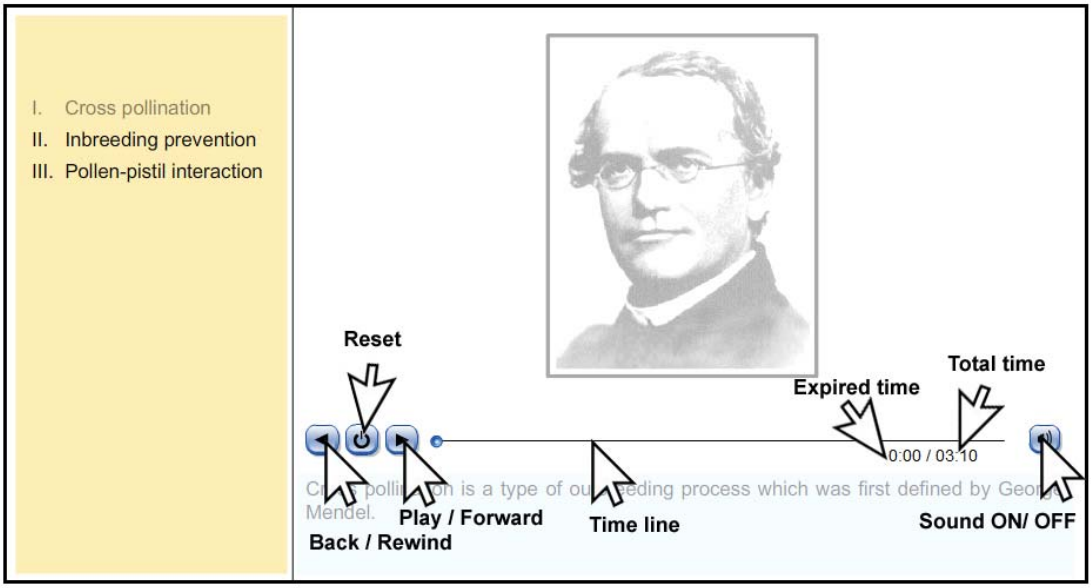
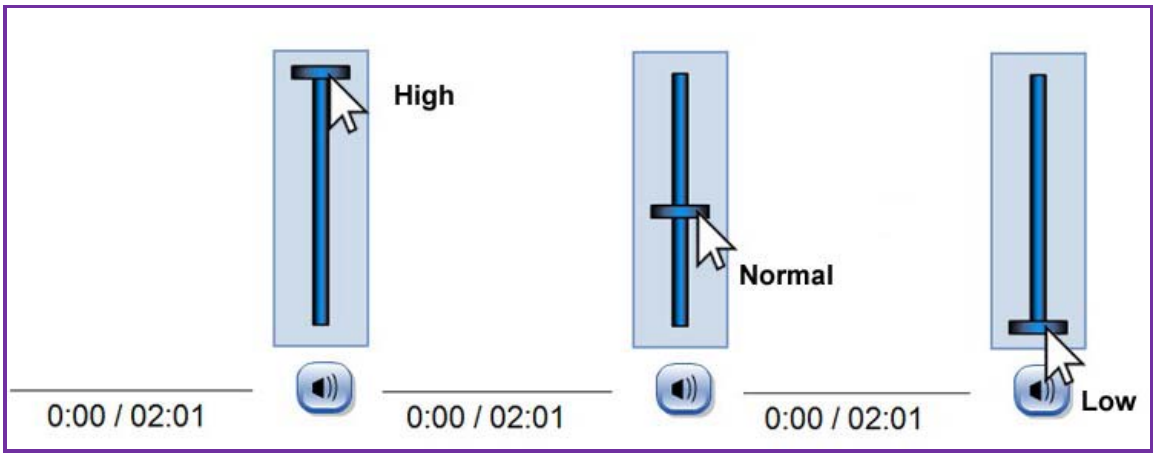


Figure 8: *Out breeding mechanism*

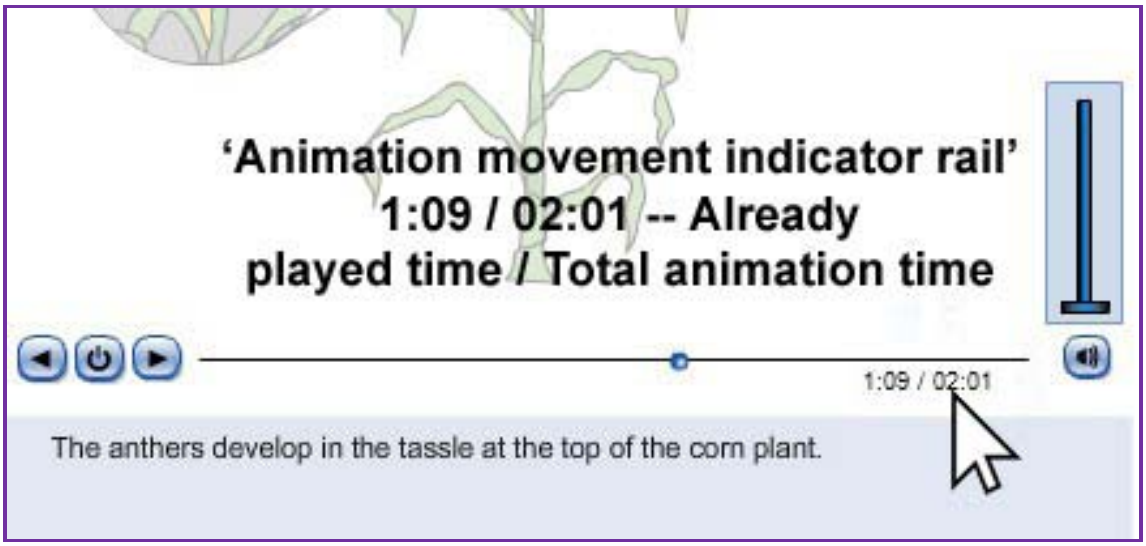
Sound track, and volume control

To control the speaker volume use volume slider up or down. All volume controls are typically available over the sound icon.



Animation run time.

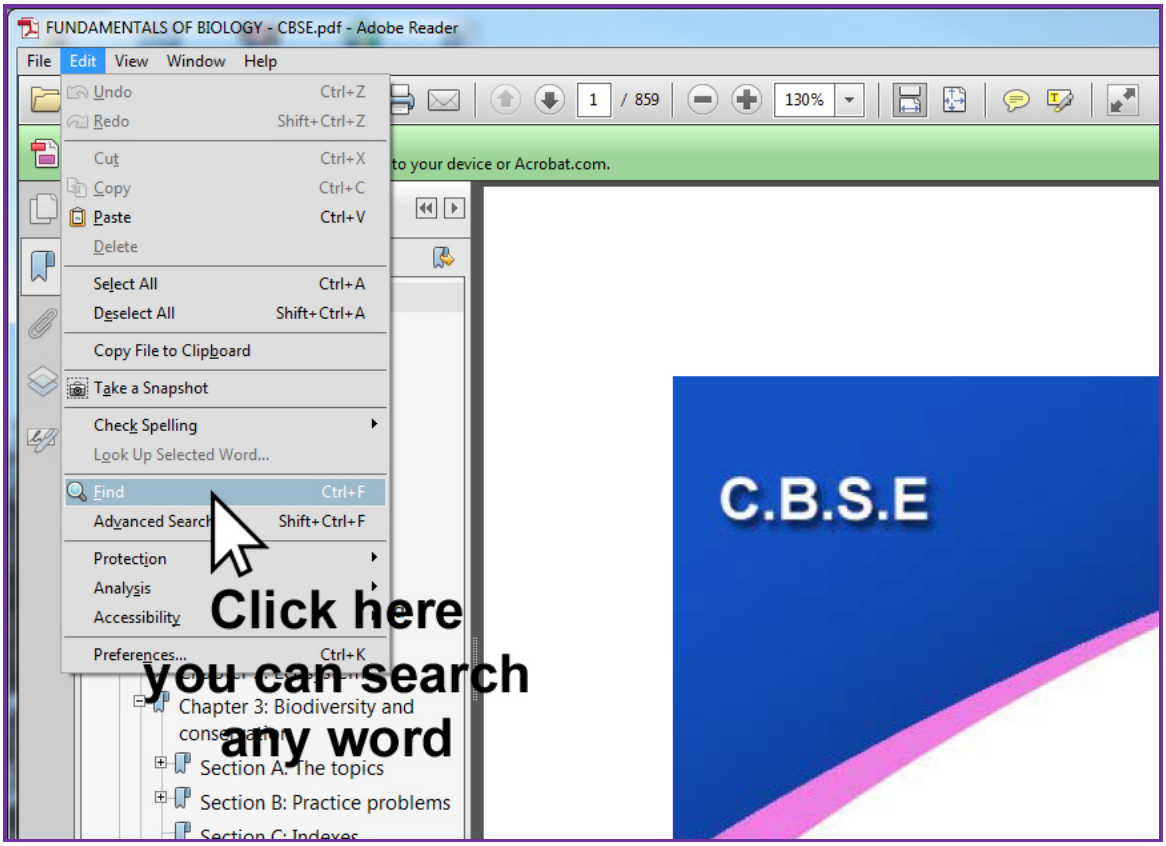
When an animation starts to play at the end of the bottom times bar two times will appear separated by '/'. These two times are <Already played time> / <Total animation time> as shown below. Manual dragging of the 'animation movement indicator' up or down the timer bar, user can move the animation forward or backward.

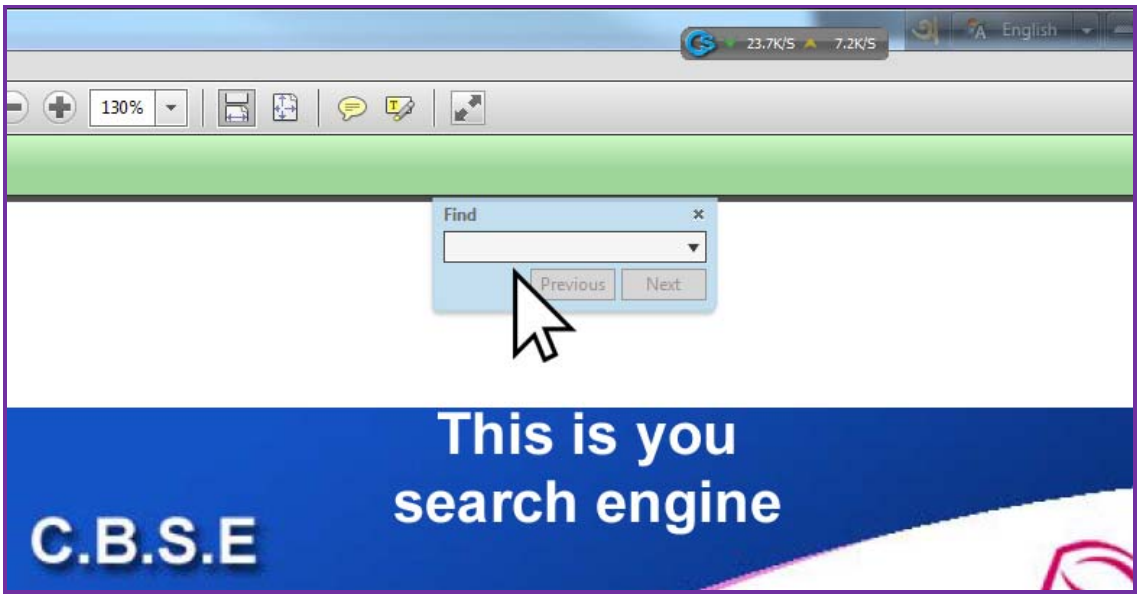


Other features

- *Search engine*

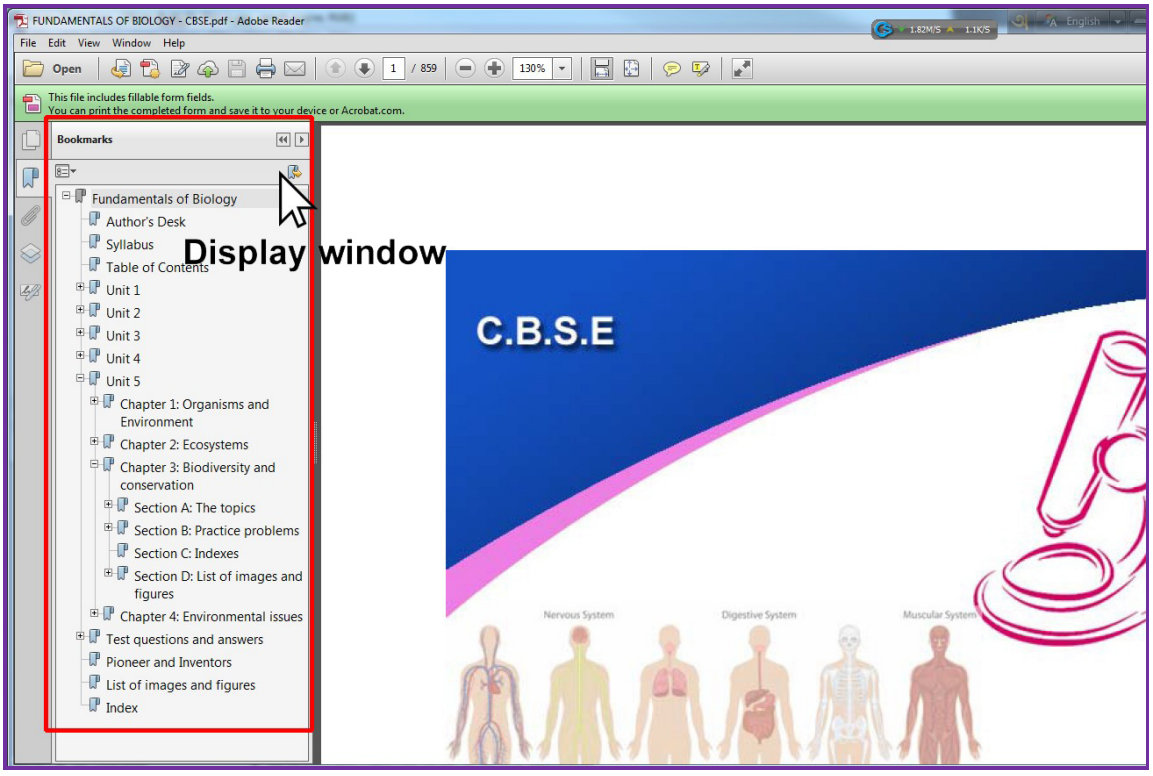
There is a generic search engine on the top right margin of the page thru which this we a wild card search can be conducted of the content.





- *Display window management*

Left and right display panel size is manageable by expanding or contracting the dividing line between the panels.



- *File type*

Since the content delivered application platform is in '.pdf' format, the application has all the characteristics and advantages of a pdf file. Furthermore, user also need a pdf reader for their system (available from our website) to use this software.