Test Book Materials
Physical Science II

Best illustrated chapters. Please refer to the Opens tax textbooks:
https://ocw.mit.edu/courses/chemistry/5-12-organic-chemistry-i-spring-2005/
https://openstax.org/details/chemistry
https://cnx.org/contents/RTmuIxzM@8.3:uXg0kUa-@4/Introduction

Contents:

1. **Atoms and periodic properties**
   Different fields of study contributed to the development of a model of the atom.
   Please refer to:
   https://www.youtube.com/watch?v=Gy9HR65DpYQ
   https://www.youtube.com/watch?v=q--2WP8wXtk
   https://www.youtube.com/watch?v=ywgg9PorTAw
   https://www.youtube.com/watch?v=IFKq9QM6_A
   https://www.youtube.com/watch?v=fLSfNxoVGk

2. **Chemical bonds**
   Electron structure will explain how and why atoms join together in certain numbers.
   https://www.youtube.com/watch?v=7DjsD7Hcd9U
   https://www.youtube.com/watch?v=VSc491HZdDo
   https://www.youtube.com/watch?v=OTgpN62ou24
   https://www.youtube.com/watch?v=_M9khs87xQ8
   https://www.youtube.com/watch?v=KjoQHqgzda8
   https://www.youtube.com/watch?v=OTgpN62ou24

3. **Chemical reactions**
   Chemical symbols, formulas, and equations can be used to concisely represent elements, compounds, and what happens in a chemical reaction
   https://www.youtube.com/watch?v=aMU1RaRuiSo
   https://www.youtube.com/watch?v=5rUdjas-mY
   https://www.youtube.com/watch?v=IZ1tKxsqV74
   https://www.youtube.com/watch?v=yA3TZJ2em6g
   https://www.youtube.com/watch?v=jy6F0Lbvjm8

4. **Water and solutions**
   Water and solutions of water have unique properties
   https://www.youtube.com/watch?v=AN4KifV12DA
   https://www.youtube.com/watch?v=9h2f1Bjr0p4
   https://www.youtube.com/watch?v=iWOnCH8m5ug
   https://www.youtube.com/watch?v=AOqH5ktwoDE
   https://www.youtube.com/watch?v=XC1RxlO0Mo
5. **Organic compounds**
The nature of the carbon atom allows for a great variety of organic compounds, many of which play vital roles in living.

https://www.youtube.com/watch?v=MmWZ8vGz9zQ
https://www.youtube.com/watch?v=zUN2nIVHiyU
https://www.youtube.com/watch?v=cMTRB1K6Seg
https://www.youtube.com/watch?v=gP8H7xi97pA
https://www.youtube.com/watch?v=0WAV47hsCpY
https://www.youtube.com/watch?v=OOCFFJ-s0p4
https://www.youtube.com/watch?v=7fv8GETEOu8
https://www.youtube.com/watch?v=IC57cJzM8OA

6. **The universe**
The night sky is filled with billions of stars, and the Sun is an ordinary star with an average brightness.

https://www.youtube.com/watch?v=mO3Q4bRQZ3k
https://www.youtube.com/watch?v=lkEvS4QUFeY
https://www.youtube.com/watch?v=XSVjakILf24
https://www.youtube.com/watch?v=Qd6nLM2QlWw
https://www.youtube.com/watch?v=jpMyjPJ9HFg

7. **The solar system**
The solar system is composed of the Sun and orbiting planets, dwarf planets, and small solar system bodies.

https://www.youtube.com/watch?v=Qd6nLM2QlWw
https://www.youtube.com/watch?v=jpMyjPJ9HFg
https://www.youtube.com/watch?v=95NCtnMRuBs
https://www.youtube.com/watch?v=B-b4XvuQo1Y
https://www.youtube.com/watch?v=TKM0P3XlMNA
https://www.youtube.com/watch?v=0ytyMKa8aps

8. **Earth in space**
The way the Earth moves in space is used to define time and describe location on the surface, and causes other recurrent phenomena such as seasons.

https://www.youtube.com/watch?v=n4lhCSMkADc
https://www.youtube.com/watch?v=EPylILgNtvQ
https://www.youtube.com/watch?v=Un55I8MyPc
https://www.youtube.com/watch?v=mve7hRaoH8U
https://www.youtube.com/watch?v=6v2LIU6ZJAM