

1. Title: The natural history of Madagascar  
LCSH: Natural history—Madagascar  
Answer:
  
2. Convex polyhedra  
LCSH: Polyhedra  
LCSH: Convex surfaces  
Answer:
  
3. Title: Neptune's ring system  
LCSH: Neptune (Planet)—Ring system  
Answer:
  
4. Title: Chemistry of hydrocarbon combustion  
LCSH: Combustion  
LCSH: Hydrocarbons  
Answer:
  
5. Tracking trash : flotsam, jetsam, and the science of ocean motion  
LCSH: Ocean currents—Juvenile literature  
LCSH: Marine debris—Juvenile literature  
Answer:
  
6. Title: Fossil dormice  
LCSH: Dormice, Fossil  
Answer:
  
7. The cell biology of sponges  
LCSH: Sponges—Cytology  
LCSH: Cnidaria—Cytology  
Answer:
  
8. Title: Fish reproductive biology  
LCSH: Fishes—Reproduction  
Answer:

9. Nematode parasites of vertebrates

LCSH: Nematoda

LCSH: Vertebrates—Parasites

Answer:

10. Title: Primate behavioral ecology

LCSH: Primates—Behavior

LCSH: Primates—Ecology

Answer:

11. Title: Tropical rain forests of Southeast Asia: a forest ecologist's view

LCSH: Rain forest ecology—Southeast Asia

LCSH: Rain forest conservation—Southeast Asia

Answer:

12. Title: The atmosphere of Titan: the proceedings

LCSH: Titan (Satellite)—Atmosphere—Congresses. (*Titan is a satellite of Saturn.*)

Answer:

1. Title: The natural history of Madagascar  
LCSH: Natural history—Madagascar  
Answer: 508.691  
*(At 508.09, you are redirected to 508.3–508.9 for geographic treatment of natural history. Add 691 from T2 for Madagascar to the base number 508, following the instructions at 508.4–508.9)*
  
2. Convex polyhedra  
LCSH: Polyhedra  
LCSH: Convex surfaces  
Answer: 516.156  
*(Convex geometry is at 516.08; polyhedra are at 516.156. By the rule of zero, 516.156 is preferred)*
  
3. Title: Neptune's ring system  
LCSH: Neptune (Planet)—Ring system  
Answer: 523.988  
*(See reference from 523.4 Planets, asteroids, trans-Neptunian objects of solar system, to 523.98 Satellites and rings. At 523.98, add the 8 from 523.48 Neptune to the base number 523.98)*
  
4. Title: Chemistry of hydrocarbon combustion  
LCSH: Combustion  
LCSH: Hydrocarbons  
Answer: 547.0104561  
*(The comprehensive number for hydrocarbons in chemistry is 547.01 (the interdisciplinary number for a topic is also its comprehensive number for the discipline in which the interdisciplinary number falls). The comprehensive number for combustion in chemistry is 541.361. Since combustion is being applied to hydrocarbons, the rule of application indicates that we should start with the number for hydrocarbons, i.e., 547.01. Here we are told to “add as instructed under 547,” which has us adding from the table there, where we find 045 Physical chemistry. Then, in 0453–0458 in that add table we are told to “add to 045 the numbers following 541.3 in 541.33–541.38” for specific topics of physical chemistry. Thus, we further add the numbers 61 from 541.361 to get 547.0104561.)*

5. Tracking trash : flotsam, jetsam, and the science of ocean motion  
 LCSH: Ocean currents—Juvenile literature  
 LCSH: Marine debris—Juvenile literature  
 Answer: 551.462  
*(Caption is "Ocean circulation"; has Relative Index entry and Class—here note with "ocean currents")*
6. Title: Fossil dormice  
 LCSH: Dormice, Fossil  
 Answer: 569.3596  
*(Dormice are at 599.3596. Upwards in the hierarchy from that, there is a see reference from 590 to 560 for paleozoology. Follow the add instruction at 569.32–569.37)*
7. The cell biology of sponges  
 LCSH: Sponges—Cytology  
 LCSH: Cnidaria—Cytology  
 Answer: 571.6134  
*(Sponges are 593.4; Cnidaria are 593.5; and cytology is 571.6. The centered entry at 580–590 says "For internal biological processes of specific kinds of plants and animals, see 571–575," so you start with 571.6. At 571.6 you are told "Add as instructed under 571–572." At 1–2 in the add table under 571–572 you are told to add "the numbers following 571 in 571.1–571.2, e.g., the subject in animals 1." That digit 1 is the last digit of 571.1. At 571.11–571.19 you are told "Add to base number 571.1 the numbers following 59 in 591–599." Thus, you add 34 from 593.4, since it is the first of two.)*
8. Title: Fish reproductive biology  
 LCSH: Fishes—Reproduction  
 Answer: 571.817  
*(Reproduction is at 571.8. Follow instructions at 571.5–571.9 to add 1 for animals, and at 571.11–571.19 to add 7 from 597 for fish.)*
9. Nematode parasites of vertebrates  
 LCSH: Nematoda  
 LCSH: Vertebrates—Parasites  
 Answer: 592.57165  
*(578.65 Harmful organisms has parasites in an including note, and also has the note, "When classifying parasites under a specific kind of organism in 579 or 580–590, prefer number for the parasite." 592.57 Nematoda is the base number, and you add 1 plus 65 from 591.65 Harmful animals, following the instructions at 592–599)*

10. Title: Primate behavioral ecology

LCSH: Primates—Behavior

LCSH: Primates—Ecology

Answer: 599.815

*(Primates are at 599.8, then following the instructions at 592–599 primate behavior is 599.815 [with the 5 coming from 591.5] and primate ecology is 599.817 [with the 7 coming from 591.7]. To choose between these numbers, use the preference table at 591, where 591.5 is ahead of 591.7.)*

11. Title: Tropical rain forests of Southeast Asia: a forest ecologist's view

LCSH: Rain forest ecology—Southeast Asia

LCSH: Rain forest conservation—Southeast Asia

Answer: 577.340959

*(At 0914–0919 Areas, regions, places in general other than polar, temperate, tropical regions in the add table under 577.3–577.6 Ecology of specific nonmarine environments is the note “Do not use; class in 577.3–577.7. Tropical rain forests are in the class—here note at 577.34 Rain forest ecology, so we can add T1—09 and T2—59 for Southeast Asia.)*

12. Title: The atmosphere of Titan: the proceedings

LCSH: Titan (Satellite)—Atmosphere—Congresses. (*Titan is a satellite of Saturn.*)

Answer: 551.5099926

*(At 523 Specific celestial bodies and phenomena is the note “Class phenomena of celestial bodies directly comparable to terrestrial phenomena with the terrestrial phenomena in 550, e.g., volcanic activity on Mars 551.21099923.” This information is repeated in the class—here note at 550 Earth sciences. Atmosphere is in the class—here note at 551.5 Meteorology, so we can add T1—09 and T2—9926 for Saturn.)*