**WORKBOOK CHAPTER 7**

**Answer Key**

**Exercise 7.1**

1. **O** This is a story I **[that]** have told many times.

2. **S** It's the story of a very wealthy and successful man I **[who]** worked in a large corporation in New York City.

3. **P** Here was a man I **[whose]** main goal in life was to make money and gain prestige. One day he woke up and asked himself the question, "Why?"

4. **OE** Then he walked into the same building I **[that]** he had walked into for the previous 15 years and marched into his boss's office.

5. **OE** "I quit!" he exclaimed. Next, he went to the bank I **[that]** he had his money in and took out a million dollars.

6. **S** He then started a nonprofit organization I **[that]** raised money for children with leukemia.

7. **P** A great deal of the money came from a wealthy donor I **[whose]** son had died of leukemia.

**Exercise 7.2**

1. who

2. that/which

3. that/which

4. that/which

5. whose

6. that/which

7. whose

8. that/which/∅

**Exercise 7.3**

1. d) Scientists are studying wild plants whose genes increase production of food crops.

2. a) Ecologists are trying to save Sumatran rhinos, whose numbers are threatened by poaching and habitat loss.

3. c) Scientists disagree over Donald Johanson, whose discovery of Lucy, the earliest-known apelike hominid, made him famous.

4. f) An archaeologist has found an ancient Egyptian town in Israel whose discovery suggests that Egyptian influence was wider than previously believed.

5. b) Geographers held their annual meeting, whose focus was the diversity of their field of study.

6. c) Guide Dogs for the Blind needs people whose dedication to helping others prompts them to raise, train, and then give up a puppy.
Exercise 7.4

1. Almost every living creature behaves according to a natural rhythm in which the events of the creature's life repeat regularly.

2. For example, approximately every 25 hours the human body follows rhythms according to which the body's temperature fluctuates.

3. In the Middle Ages, flowers were planted in a dial shape according to the time of day at which the flowers supposedly opened each day.

4. Four thousand years ago, the Egyptians developed star charts by which they established the time of night.

5. Next, shadow clocks with which people judged the time of day were developed.

6. In 1090 A.D., Su Sung, a Chinese astronomer, invented a 30-foot-high clock with a giant water wheel by which the clock was powered continuously for 36 years.

7. In the late 1870s, a photographer invented a timed system with which he photographed moving animals such as racing horses.

Exercise 7.5

1. 1947 was the year the first mass-produced suburb in the United States was established by William J. Levitt. [INFORMAL]

2. New York was the state Levittown, a community of small houses without basements, was built in. [INFORMAL]

3. The years following World War II were the time returning veterans bought thousands of Levittown homes. [INFORMAL]
4. An old potato field was the site Levitt built his first homes on. [INFORMAL]
   An old potato field was the site that Levitt built his first homes on. [INFORMAL]
   An old potato field was the site where Levitt built his first homes. [FORMAL]
   An old potato field was the site on which Levitt built his first homes. [FORMAL]

**Exercise 7.6**

1. A cave near the Amazon River is the location where (or at which) the oldest known paintings in the Western Hemisphere were found.
2. The cave paintings include stick figures of people, a comet, and geometric patterns that (or which) might have been a kind of calendar.
3. Paleoinindians were the group of people who (or that) painted the caves over 10,000 years ago.
4. The end of the last Ice Age was the time during which (or when or that) the first settlers arrived in the Americas.
5. These first settlers were Asians who (or that) crossed from Siberia to Alaska over a land bridge.
6. The land bridge across which the early settlers traveled (or that/which the early settlers traveled across) no longer exists.
7. Besides the cave paintings, archaeologists have discovered pottery that (or which) the Paleoinindians made around 7,000 years ago.

**Exercise 7.7**

1. Cari was suddenly hit by a drunk man whose car swerved out of control.
2. The man was Clarence Busch, who was a cannery worker who had been arrested many times for drunk driving.
3. Cari’s mother, Candy, who had two other children, was at a cocktail lounge with some friends when she decided to do something about the danger of drunk drivers.
4. She decided to form an organization, which her friend named MADD.
5. She went to see the governor of California, Jerry Brown, who (m) she tried to convince to start this organization.
6. Even though he refused her request, Candy went to his office every day, where she talked to everyone about her idea.
7. Brown finally relented, and now Candy’s organization, which has 600,000 volunteers, has 320 chapters.
8. MADD was largely responsible for getting the California legislature to pass a law that/which imposes a fine and imprisonment for drunk drivers with many offenses.

**Exercise 7.8**

1. The Arctic tundra, 100 square miles of which have been studied extensively, stretches over 5 million square miles of Alaska, Canada, Greenland, Scandinavia, and Siberia.
2. The tundra contains little vegetation, all of which must be able to survive long, cold, dark winters.
3. Permafrost is created during the long winter, three months of which have no sunshine at all.
4. Scientific teams study all aspects of the ecosystem.
5. The scientific teams, many of whose members return year after year, receive grant money for research, the most important area of which now is global warming.
6. One group of scientists studies the water system of the tundra, 14% of which is covered with water.
7. The tundra contains unusual plant species, some of which need only nitrogen from the air for food.

**Exercise 7.9**

1. A blue moon, occurring when there are two full moons in one month, is not as rare as one might think.
2. In fact, astronomers studying the moon’s phases report that a blue moon occurs every 2.72 years on average.
3. An exploding star creates a supernova, a huge, bright light.
4. The light consists of gas and debris shooting out from the burning star.
5. Recently, astronomers have observed two supernovas colliding (or two colliding supernovas).
6. The two colliding supernovas now being observed will probably continue to emit light for the next thousand years.

**Exercise 7.10**

1. William J. Levitt was a developer whose goal was to build affordable housing.
2. An acronym is a group of initials, such as “MADD,” which forms a word.
3. The machine that Ian Hagemann built is used by doctors all over the world.
4. People who want to train guide dogs must be at least ten years old.
5. The sikisik, which is an Arctic ground squirrel, hibernates through the winter by dropping its body temperature below freezing.
6. New types of crops that are called cultivars are being developed in order to raise production of corn, rice, and wheat.