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| metin içeren bir resim  Açıklama otomatik olarak oluşturuldu | **First Name:**  **Last Name:**  **St. Number:**  **Date:** | **2022-23 PROFICIENCY EXAM**    **20.09.2022** | **READING APPENDIX** |

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| **Reading 1 *The Mind of the Chimpanzee*** |

1. In the middle of the 1960s, Beatrice and Allen Gardner started a project that, along with other similar research, taught us a lot about the chimpanzee mind. They bought an infantchimpanzee and began to teach her the signs' of ASL, the American Sign Language used by many of the deaf in Canada and the United States. The Gardners achieved remarkable success with their student, Washoe. Not only did she learn signs easily, but she quickly began to put them together in meaningfulways. It was clear that when she saw or used a sign, she formed a picture in her mind of the object it represented. If, for example, she was asked in sign language to get an apple, she would go and find an apple that was out of sight in another room.
2. When news of Washoe's achievements was first announced to the scientific community, there was a lot of protest. The results of the research implied that chimpanzees had the ability to learn a human language and suggested that chimps might possess intellectual skills similar to those of humans. Although many were fascinated and excited by the Gardners' discoveries, many more bitterly criticized the whole project. The controversy led to many other language projects, and the resulting research provided additional information about the chimpanzee's mind.
3. The fact that chimpanzees have excellent memories surprised no one. So, it was not particularly remarkable when Washoe gave the name-sign of Beatrice Gardner, her **surrogate mother1** after a separation of eleven years. *Actually, it was no greater an achievement than the memory of dogs who recognize their owners after separations of almost as long.*
4. Chimpanzees also possess pre-mathematical skills: They can, for example, easily tell the difference between more and less.They can put things into specific categories according to a particular characteristic. Therefore, they have no difficulty in separating a pileof food into fruits and vegetables at one time, and at another, dividing the same pile of food into large and small,even though***this*** calls for putting some vegetables with some fruits.
5. Chimpanzees who have been taught a human language can combinesigns creatively in order to describe objects for which they have no sign. Washoe, for example, ***puzzled*** the people taking care of her by asking many times for a rock berry*.* Eventuallythey discovered that she was referring to a sweet type of nut that she had been given for the first time a short time before. Another language-trained chimp described a cucumber as a green banana*,* and another referred to an **Alka-Seltzer2** as a listen drink*.* They can even invent signs. One chimp had to be put on a leash when she went outside. One day, ready to go outside but having no sign for leash*,* she showed what she wanted by holding a bent finger to the ring on her collar. This sign became part of her vocabulary.
6. Some chimpanzees love to draw, and especially paint. Those who have learned sign language sometimes give a name to their artwork, "This apple"— or sweet corn, or bird, or whatever. The fact that the paintings often look, to our eyes, remarkably different from the objects themselves either means that the chimpanzees are not very good artists or that we have a lot to learn about chimpanzee art!
7. People sometimes ask why such complex intellectual powers have evolved in the chimpanzee when their lives in the wildare so simple. The answer is, of course, that their lives in the wild are not so simple! They use—and need—all their mental skills during normal everyday life in their complex society. Chimpanzees always have to make choices—where to go, or withwhom to travel. They need highly developed social skills—particularly males who want to become leaders. And low-ranking chimpanzees must learn to hide their intentions or to do things in secret if they want to survive. Indeed, the study of chimpanzees in the wild suggests that their intellectual abilities evolved over thousands of years to help them deal with daily life.
8. It is easier to study intellectual skills in the lab where, through carefully designed tests and the proper use of rewards, chimpanzees can be encouraged to stretchtheir minds to the limit. It is more meaningful to study the subject in the wild, but much harder. It is more meaningful because we can better understand the environmental pressures that led to the evolution of intellectual skills in chimpanzee societies. It is harder because, in thewild, almost all behaviors are complicated by endless variables: years of observing, recording, and analyzingreplace planned testing; the number of research subjects can often be counted on the fingers of one hand; the only experiments are nature's own, and only time—eventually—may lead to their being repeated.

**Glossary:** **1surrogate mother** (n) someone who takes the place of a person or animal’s biological mother

**2****an Alka-Seltzer** (n) a type of medicine that is put in water and then drunk, and that makes a sound when it is put in water

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| **Reading 2  *The Father of Vaccination*** |

1. In a small town in England, in the middle of the eighteenth century, an eight-year-old boy named Edward Jenner was intentionally infected with a deadly disease. He was then locked in a **barn1** with other children who had been similarly infected. There they remained until they either died or recovered. Fortunately for humanity, Jenner survived.
2. Child abuse? No—variolation. A common practice in the eighteenth century, variolation involved deliberately infecting a healthy person with the variola virus that causes a terrible illness, Smallpox. To infect the healthy person, doctors would take the **pus2** from a person sick with Smallpox and intentionally inject it into the healthy person.
3. Why would a doctor do this? Variolation was the only effective means of fighting Smallpox, a deadly disease that was regularly killing between 10-20% of the population of Europe at that time. Among children, the death rate was even higher; one in three infants and children who caught Smallpox died. Although almost everyone who was variolated caught the disease, the death rate among variolated children was only about 10%, as compared to more than 30% in children who caught the highly contagiousdisease directly from another person. And most importantly, almost everyone who survived variolation never caught the disease again.
4. Itis possible that variolation saved Jenner's life, but he would never forget his terrible days in the barn. Perhaps that is what led him to choose a career in medicine. In 1761, at just thirteen, Jenner began his medical studies. By 1770, he was studying **anatomy3** and surgery under John Hunter at St. George's Hospital in London. With Hunter, Jenner was trained in the scientific method, which his instructor described simply as "Why think; Why not try the experiment?"
5. After two years in London, Jenner returned to his hometown. He was a popular doctor, due to his gentle personality and surgical skill. One common requestfrom his patients was for variolation. Jenner performed the proceduremany times, although he used a more humane method than the one that he had suffered through as a child.
6. In his medical practice, Jenner observed something unexpected: a small number of his variolated patients never developed Smallpox. Because of his training in the scientific method, he wanted to understand why these particular individuals were able to resist the disease while all others, as expected, contracted a mild to severe case of the deadly disease. He discovered that the variolated patients who did not develop Smallpox worked closely with cows and had all previously had Cowpox. Cowpox is an illness passed from cows to humans. Jenner observed that some of the symptoms of cowpox and Smallpox were similar. However, while cowpox was a mild illness that did not lead to death, Smallpox was a severe, life-threatening disease. He was also aware of a common belief that people who had had cowpox never got Smallpox. Based on his observations, Jenner came up with a theory. He believed that cowpox not only protected against Smallpox, but could be passed from one human being to another as a deliberate means of protection from the disease.
7. In May 1796, Jenner got the chance to test his theory. He learned that a young woman from a local farm, Sarah Nelmes, had cowpox. Jenner asked the parents of an eight-year-old boy named James Phipps for permissionto conduct an experiment on their son. Jenner chose James because he had never had cowpox or Smallpox. Jenner removed pus from Sarah's hand and spread it on scratches he had made on the boy's arms. As expected, the boy developed cowpox, but recovered rapidly. Jenner was now ready for the second, riskier stage of his experiment. On July 1, 1796, Jenner variolated Phipps with pus from a Smallpox patient. Jenner and other scientists and physicians waited anxiously for the results.
8. In fact, James Phipps never caught Smallpox. This was clear evidence to support Jenner's theory, but more data were needed. Jenner experimented successfully on thirteen more patients, and at the end of 1796 wrote a report describing his work for the Royal Society. However, it was turned downfor publication. According to those who reviewed it, Jenner's theory was too much of a challenge to the accepted medical beliefs of the time.
9. Jenner ignored the criticism and continued experimenting. In 1798 he published his own book based on twenty-three cases in which vaccination (named for the *vaccinia* virus of cowpox) resulted in lasting protection against, or immunity to, Smallpox. Although many people continued to criticize Jenner, some well-known London physicians were starting to vaccinate their patients. By the beginning of the nineteenth century, the practice of vaccination had spread throughout the world.
10. Eventually Jenner's contributions to science were formally recognized. However, he never made an attempt to get rich through his discovery. Instead, he spent much of his time working, without pay, to spread the good news about vaccination. In 1977, the last known victim of Smallpox recovered. No new cases appeared, and in 1980, the World Health Assembly announced that "the world and its peoples" were free of **S**mallpox.

**Glossary:** **1 barn** (n)a large farm building in which animals are kept

**2 pus** (n)a thick yellowish liquid produced in an infected part of the body

**3****anatomy** (n) the scientific study of the structure of human or animal bodies