

## Reading Future Create 3

### Unit 1. The Diary of a Young Girl

*The Diary of a Young Girl*, also known as *The Diary of Anne Frank*, was written by a 15-year-old Jewish girl, Anne Frank. Anne lived through an atrocious time in history called the Holocaust. The Holocaust happened during World War II. The Holocaust occurred in Europe between 1941 and 1945; a political group called the Nazi Party, led by Adolf Hitler, began a war to kill all Jewish people as well as several other minority groups. While it is difficult to calculate the death toll from this event, due to a lack of records, it is estimated to be well beyond 6 million.

In 1933, Adolf Hitler came into power in Germany and began systematically murdering people he considered 'sub-human' or socially undesirable. This deliberate targeting and killing of particular ethnic groups is called genocide.

Anne and her family were prominent members of the Jewish community. They were forced to flee Germany and go into hiding when Hitler rose to power. *The Diary of a Young Girl* is a collection of Anne's thoughts from a 2-year period when she and her family lived hidden from the Nazis in a small annex<sup>1</sup> of another family's home.

The entrance to the secret annex was disguised as a bookcase. It opened to reveal hidden stairs. Anne shared a room with Fritz Pfeffer, another Jewish person who was fleeing from the Nazis. Anne's parents, Otto and Edith Frank shared a room with Anne's older sister, Margot. Margot is also said to have kept a diary like Anne did, but Margot's diary has never been found.

We know her sister Margot had a diary because of a passage written in Anne's diary: "Last night Margot and I were lying side by side in my bed. It was incredibly cramped, but that's what made it fun. She asked if she could read my diary once in a while. 'Parts of it,' I said, and asked about hers. She gave me permission to read her diary as well."

The annex also contained a communal living room which also served as a bedroom for Hermann and Auguste van Pels, two other adults in hiding with the Frank family. The Van Pels also had a son, Peter, who had his own small bedroom in the annex.

A day in the Secret Annex is a portion of Anne's book which details their daily routine. Life must have been a terrible combination of fear of being found and killed, and boredom, as there was limited space and entertainment available. Anne could not leave the annex at any time, at risk of being found and murdered. One of the things Anne did to help with the boredom was writing. She would often address her diary, "Kitty," and started the entries "Dear Kitty."

<sup>1</sup> annex: n. a building that is attached to or near a larger building and usually used as part of it

## Unit 2. Leonardo da Vinci

Leonardo da Vinci was born on April 15, 1452, near Florence, Italy. He learned mathematics and was talented in music from childhood. He was especially passionate about painting. He was curious and creative, and he drew some of history's most impressive sketches, made remarkable observations. He also designed futuristic inventions, imagining possibilities far ahead of his time. In 1466, he went to Florence to become an apprentice<sup>2</sup> to Andrea Del Verrocchio, there he learned about the human body and other natural phenomena accurately.

In the later years of his life, he became deeply interested in science and created a lot of scientific drawings. His pictures, depicting body dissection, affected the way people described and developed medicine. His scientific studies have covered a range of diverse subjects such as mathematics, physics, astronomy, plants, anatomy, geography, civil engineering, and machinery.

Today we are deeply interested in anatomy, aeromechanics, and zoology, which we classify as natural sciences; the results of da Vinci's research were once again noticed in the late nineteenth century, and his scientific genius was once again celebrated. Today, over 7,000 pages of his notes and drawing have survived.

He is also the inventor of the theory of the parachute, the theory of wave motion, and a theoretical calculator, to name a few. Watching birds' flying gave him ideas surrounding the designing of airplanes, and through the study of air theory, he developed ideas about using wind, clouds, and rain as a source of energy. Additionally, he produced research notes on air dynamics and bird flight, which showed promise in development of future helicopters and plane wings.

His scientific approach to perspective and nature, the structures which make up the human body and the mathematical proportions of the human body are only a part of his huge collection of work. He is not only the greatest artist to represent the Renaissance, but also one of the most intelligent human beings to have ever walked the Earth.

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<sup>2</sup> apprentice: n. a person who works for another in order to learn a trade

## Unit 3. Pocahontas

Pocahontas is a Native American who married John Rolfe, a British native who became a celebrity and played a major role in maintaining peace between Native Americans and British settlers.

Pocahontas was born in 1596 to the chief of the Native American tribe of Powhatan, who lived in Virginia. Her father was the chief of this tribe which controlled the union of the Algonquian languages people of eastern United States. Pocahontas's original name was Matoaka, which means "little snow feather," and she was nicknamed Pocahontas in her childhood because of her free-spirited personality. Pocahontas means "little playful one" in the Powhatan language.

Though the true story of Pocahontas is debated, with much truth being lost to myth over the centuries, the most popular story is that when the English explorer, Smith, was taken prisoner by the Powhatan tribe and was about to be executed, Pocahontas threw herself in front of Smith and begged her father, the tribe's leader, to spare him. This story is written in a book authored by Smith in 1624.

In 1613, Pocahontas was taken prisoner by the English during the Anglo-American conflict and held for ransom. While she was being held, she became influenced by her captures. After being baptized and converting to Christianity, she changed her name to Rebecca, from the Old Testament's Book of Genesis. Although she had a chance to return to her family, she chose to stay and married John Ralf, owner of a tobacco farm, in 1614. She later gave birth to their son, Thomas Rolfe, in 1615.

In 1617, the Rolfe family boarded a ship going to Virginia. Pocahontas became ill on the journey. The boat stopped in Gravesend, and she was taken ashore. It is possible that she died of pneumonia, smallpox, or tuberculosis. Some even think she may have been poisoned; however, it is not known for certain, and the cause of her death remains a mystery.

Many American products and landmarks are named after Pocahontas, and her story has long-inspired romantic tales. Interpretations of her story are frequently used as a subject for art and literary films.

## Unit 4. Walt Disney

It might surprise you to know that Walt Disney, creator of the famous Mickey Mouse and Disney World, was not always a great success. He faced a lot of adversity throughout his life, but he persisted in his vision to become a successful businessman and creator.

At a young age, he worked a lot of small jobs, such as selling snacks and newspapers; he also got up early to do a paper route delivering newspapers before school. These odd jobs helped him to pay for art classes. He dropped out of high school at age 16, planning to join the Army, but was rejected due to his young age. Instead, he joined the Red Cross and was sent to drive an ambulance for a year in France.

He returned to the U.S. in 1919, and in Kansas City, he found a job drawing cartoon commercials for a studio. He also launched his first company making cartoons called 'Laugh-O-Grams.' The cartoons were seven-minute fairy tales with both live action and animation and became very popular. Unfortunately, Disney's company had taken on too much debt and was forced to declare bankruptcy.

He then decided to move to Hollywood and open 'Disney Brother's Studio' with his brother Roy. There, he once more found some success, distributing their 'Alice' cartoons and also a cartoon titled: 'Oswald the Lucky Rabbit.' A few years later, one of his employees betrayed the company, stealing the rights to the Oswald cartoon and opening their own studio, taking almost all of Disney's employees with them.

This forced Disney to quickly produce three new cartoons featuring 'Mickey Mouse.' The cartoon was an instant sensation! Many more, longer cartoons were released, and new characters, such as Goofy, Donald Duck, and Minnie Mouse, joined Mickey on screen.

By 1937, Disney was premiering his first, full-length film, 'Snow White and the Seven Dwarfs,' which made 8 million dollars and won Walt Disney an honorary Oscar in 1939. Disney would go on to face more ups and downs throughout his career, but his persistent attitude combined with a clear and focused passion from the start ensured he was a great success. Today he is one of the most recognizable names in the world.

## Unit 5. Foreign Exchange Rates

Since every country has its own economy, its own traditions, and history, every country also has its own currency. Though 1 United States Dollar (USD) is always equal to 1 USD in American, each currency has a different value compared to others in the greater world market. This becomes an issue when you need to do a financial transaction which involves more than one country. For example, if you would like to purchase something from Korea, you would have to convert U.S. dollars (USD) to won (KRW) to figure out how much the item will cost you. Right now, 1 USD is equivalent to 1131 KRW. (\*January 2019)

Since economies are always fluctuating, the currency conversion rate, or 'foreign exchange rate,' changes frequently. In fact, it changes every second, as trades are constantly being done. If a country's trade improves and its export goods prices rise, the country's currency will increase in value in the world. This is also true when circumstances are reversed—the worse a country's economy is doing, the lower value their currency will have.

It is very easy to get a rough value of your currency using the internet; however it is important to note that each bank offers a different exchange rate because they charge commissions in order to make money. Some banks will only update their exchange rate once a day. While banks will usually exchange common currencies without issue, some will not buy back certain types of currency.

It is important, if you are planning to travel, that you check with your bank to see what types of currency they offer, what their current exchange rate is, and whether or not they will buy back the foreign currency from you when you return from your trip abroad.

Someday, it might be possible for the world to exist as one, giant economy. We would all share one currency, and foreign exchange rates would no longer need to exist. However, the world having one shared economy is a complicated issue that has yet to be thoroughly discussed.

## Unit 6. What Are Banks For?

A bank is a financial institution that accepts deposits and gives people loans. The first bank in Europe was created about a thousand years ago to keep people's money safe. At that time, banks used actual gold to buy and sell goods, but gold bars were heavy, conspicuous, and difficult to store.

Today's banks are not only storing money but also doing many other things. One of the things they do is lend money to people who need it. This is called a 'loan.' The bank also exchanges money between the giver and the receiver; this is called 'remittance.'

They also convert and exchange money from other countries. Additionally, when people deposit their utility bills, such as resident tax, electricity tax, and administrative expenses, the bank sends them to the relevant location. They also keep safes in which they store people's valuables.

Putting money in the bank is called a 'deposit,' and the bank creates an account for the person who deposited the money. The types of deposits vary depending on various conditions, including the duration and amount of money deposited, who deposited the money, and which bank account type is used. There are two basic types of accounts: 'checking' and 'savings.' Checking accounts are normally used for day-to-day needs, deposits have no fixed application (there is no need to spend the money on any specific things) or timeframe (there is no need to withdraw or spend the money at any specified time). You can make deposits whenever you have money and withdraw money whenever you need to.

On the other hand, a 'savings' account is used to accumulate funds. To open a savings account, you may need to deposit a minimum or 'base amount' of money; this is called the 'principal.' Each month, the bank pays you 'interest,' which is a small percentage of the principal. The amount of interest varies depending on conditions, and these earnings are deposited into your account in addition to the principal amount.

## Unit 7. How to Set Prices

People use money to buy and sell the things they need to live. They give and receive as much money as the price of the goods. How much goods or services cost is called their 'value.' Their 'price' is a monetary representation of the value of the things you buy and sell. For instance, if a bag of cookies is worth 3 dollars, then the person who sells them is trading for the cookies for the value or 'price' of 3 dollars. .

Prices are not limited to goods. There is also a price for effort - services. For example, the price of admission to a play is representative of the value of the services of the actors and creators.

Prices are not fixed, so they go up and down at times. This is because supply and demand varies. Demand means what goods or services people want to buy and supply means what goes and services are available.

The person who wants to sell something wants to sell as it for as much as possible, and the person who wants to buy is going to try and purchase it as cheaply as possible. So the price is set at a level where both the seller and the buyer agree.

From the point of view of the person who wants to sell the goods, rising prices reduces the volume of people who are interested, and lowering prices increase the amount of people who'd like to purchase their goods. These changes in demand are called the 'law of demand.' On the other hand, the 'law of supply' states that as the price of goods goes up, the amount of goods the seller has available will also go up.

Prices are then determined at a level where both consumers and producers agree and are satisfied. In other words, the price is determined where demand and supply align.

## Unit 8. Hyperinflation

Prices directly affect the economic activities people need to maintain their lives. That is why it is a nation's responsibility to inspect and control prices. People's lives are impoverished in the country that has failed to control prices, and problems such as civil conflicts, political chaos, and poor quality of life can occur. In times of high prices, money becomes worthless, as so much more money is needed to purchase even one small item.

This devaluation of currency eventually leads to a "breakdown in trust" of the currency, making people switch to using more stable, foreign currencies, such as the U.S. dollar. It also causes people to become focused on obtaining the physical necessities for everyday life. Eventually, the problems of hoarding and so on worsen the problems within an already chaotic, social-political environment, leading to an additional rise in prices. As a result, the unusually high prices that cannot be controlled can make it even more difficult for the nation's economy to recover. This phenomenon is called hyperinflation.

Hyperinflation refers to the extreme economic situation in which prices are rising faster than the economy can adjust for. Once these uncontrollable, high prices grow beyond the inflation stage, a country cannot get out of the downward spiral until it has achieved national economic reform. Hyperinflation occurs when there is a lot of money circulating, but not a lot of goods or services available.

Here is an example of hyperinflation: if a chicken were to be priced at 10 dollars under normal economic conditions, it would be worth 1000 dollars during the hyperinflation situation. Then, even though the amount of the money available has gone up dramatically, the value of the money is low, and the cost of the chicken is very high. People run into situations where the value of their money is much lower than it was at the time when they earned it, making it difficult or impossible to purchase the things they need.



## Unit 9. Virtual Reality and Art

Virtual reality used to be something which only existed in science fiction stories. Thanks to advances in technology, now virtual reality, or VR, can be brought into your own home. But VR is not only useful for entertainment—fun and games—it can also be educational.

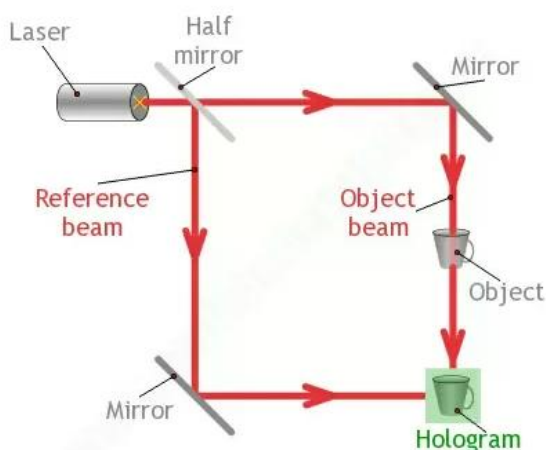
For instance, VR is reshaping the way we educate our medical professionals. This is good news, as the need for surgeons in the world is expected to double in the next 10 years. Development in VR will allow thousands of surgeons to train at the same time in different sorts of practice surgeries.

VR can also help you learn about things such as art. Instead of traveling to the museum, VR will bring the art directly to you! Thanks to these new developments, many of the greatest museums in the world now offer virtual reality tours. For example, the Smithsonian American Art Museum, the British Museum, and the Louvre, all offer up close and personal tours of their collections.

The hologram began 150 years ago, in 1862, with the British inventor Henry Dircks. He designed the ghost illusion technique for the stage, now known as "Pepper's ghost." This was the beginning of the hologram. Then in 1948, British physicist Dennis Gabor won the Nobel Prize for the development of the holographic method. From the 1960s, the application of holograms began to develop due to the development of lasers.

VR began with the idea of a hologram. Hologram is a combination of the greek word "holo," meaning "full", and "gramma" meaning, "message" or "information." When combined, they mean 'full information' or 'perfect message.' Holograms regenerate the three-dimensional shape of an object so that you can see the appearance of the object from any angle.

The hologram principle divides the beams of light emitted from lasers into two so that at first one light can illuminate the screen directly. Then, another light illuminates the object we are about to see. The former is called 'reference light,' and the latter is called 'object light'. Since the object light is the light reflected from each surface of the object, the distance the light travels to the screen varies depending on the surface of the object. The pattern generated by the unmodified reference light interferes with the object light that is stored on the screen. The form produced is the hologram.



A hologram does not require special viewing glasses and can be implemented in real space rather than on a screen. So, it can be applied to displays, education, medicine, defense, broadcasting, advertising, and printing industries. In the long run, if augmented reality, virtual reality, and holography are fused, a new way to experience the world is expected to unfold.

## Unit 10. Banksy's Graffiti Art

Banksy calls himself an art terrorist. Little is known about this man. He always makes his work and disappears when people are not looking. His initial activities started in Bristol, England, in 1990, so he is estimated to be from that area and in his 40s, as of 2010.

Banksy's activities started on the walls of a building that no one seemed to care about. Since the 1990s, he has painted all over the region of Bristol. Pictures on the street without a signature or copyright caught the attention of the people and changed their perspective of street art. Unlike other drawings, his paintings had clear, heavy messages. Banksy took pictures of his graffiti and presented them on his website. As the graffiti collection grew, people began to wonder who Banksy was.

Banksy has never shown his face or name to the public. Graffiti on the streets may be a violation of the law, but his anonymity has drawn attention, either intentionally or not. Since the artist remains a mystery, attention has consequently been redirected at the messages conveyed by the paintings. His art features messages surrounding political injustice, neoliberal<sup>3</sup> economic absurdity<sup>4</sup>, satire<sup>5</sup>, and mockery<sup>6</sup>. He has a good sense of humor and expresses his ideas with vivid colors and simple graphics.

He draws pictures at dawn when everyone sleeps and then disappears. That's why the paint is quickly sprayed, mainly using stencils. Black and white contrast, delicate shades, as well as the novel use of walls and landmarks, can be appreciated in these artist's works of art.

Banksy, who has opened surprise exhibitions in a variety of ways, secretly sold his original work in 2013. Banksy's stencils, sold by an old man at a street stall in Central Park, New York, were priced at only \$60 each. After Banksy revealed this, people rushed the area, hoping to buy them, but the street stalls had already disappeared.

It is Banksy's mission to criticize the self-promotion involved in contemporary art. Self-assertive artists and consumers have been well caught off guard by anonymous art, which they could not afford. On the other hand, what is ironic is that the more Banksy performs these surprise events, the more popular his work becomes, the higher the price of his work goes, and eventually, it is consumed only by the wealthy. Nonetheless, Banksy's ability to catch consumers off guard and his impactful messages to society, have remained unchanged.

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<sup>3</sup> neoliberal: a. supporting a large amount of freedom for markets, with little government control or spending, and low taxes

<sup>4</sup> absurdity: n. the quality or state of being unreasonable

<sup>5</sup> satire: n. a way of criticizing people or ideas in a humorous way

<sup>6</sup> mockery: n. the act of laughing at someone or something in an unkind way

## Unit 11. The Art of LEGO

The carpenter Ole Kirk Christiansen made wooden toys in Denmark in 1932, and changed the company name to Lego before he started making toys in earnest. Lego is beloved by both children and adults alike. Artists have picked up on this popular toy and now use it as a medium, creating and recreating everything from delicate facial expressions to famous paintings, and even famous places.

Nathan Sawaya, a former lawyer from New York City, is one of the most well-known Lego artists. He seems to value artistry more than creating large, difficult works. His Lego pieces are on display at major art museums in the U.S. His most famous work is "Heartfelt," which describes the pent-up<sup>7</sup> inner turmoil<sup>8</sup> of the modern day, with Lego pouring out from inside a body as it opens.

Sean Kenny, another New Yorker, is also working on contemporary art using Lego bricks. He says he's played with Lego since he was young, and became a Lego artist after finding he could do interesting things with the bricks. His many body of work focuses on creating animal forms.

Eric Harshbarger, a native of Alabama in the United States, was once a famous game planner. He created *Dungeons and Dragons* in 2015, a Lego fresco that uses over 50,000 bricks of Lego and measures 17 inches wide by 90 inches tall.

Arthur Gugick, who is also an American, builds Lego versions of some of the most famous buildings in the world. He is a math teacher and produces Lego works that show pictures according to the angles they are viewed from.

There are many other artists who make amazing works with Lego blocks. Many adults, even if they are not professional artists, collect expensive, limited edition Lego models. There are about 2.16 million Lego bricks being made every hour, that's 36,000 every minute. Since 1958, more than 400 billion Lego bricks have been made.

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<sup>7</sup> pent-up: adj. (of feelings) not expressed or released

<sup>8</sup> turmoil: n. a state of confusion, uncertainty, or disorder

## Unit 12. Nail Art

Nail art is makeup for fingernails and toenails. Nail art is one of the most interesting and creative areas in the beauty industry. You can paint creative pictures in small spaces on your fingernails, attach artificial jewelry or other decorations, or attach things that are designed in the form of already-finished stickers.

Nail art was used in ancient Egypt and China over 5,000 years ago to identify people. At that time, as there was no easy source of polish, that is why the heavier it was applied, the higher the social status of the wearer. Additionally, lower classes wore nude and light colors, whereas high society favored red, which was harder to make. The nail care industry started in the early 19<sup>th</sup> century after invention of a manicure line. In Korea, the first nail salon was created in 1988.

In the realm of extreme nail art, there is a man who is known for growing his fingernails and drawing pictures on them. M. Narahari, a man living in Hyderabad, India, has been painting fingernails for 23 years since 1995. He has painted pictures on 85 out of his 100 cut nails thus far.

Both Narahari's father and brother were artists, and they inspired Narahari to start painting. When he saw the people around him painting on a variety of spaces, from canvases to eggshells, he said that he decided to draw on his fingernails because he felt he wanted to paint a picture in a special place.

He mostly draws portraits of celebrities such as Mahatma Gandhi, Mother Teresa, and Michael Jackson, and sometimes draws symbolic buildings from cities around the world, such as the Taj Mahal and the Eiffel Tower. Narahari only draws on his own fingernails, so he has to wait patiently until the nails have grown to a certain length.

Another famous nail artist is Rick Mazzaferro. He is an American nail art hobbyist who paints landscapes, flower pots, and little cottages on his friends' nails for fun. On average, he spends 20 minutes on each nail. He has had offers to open up his own nail salon, but declines; he says he prefers to keep his nail artistry as a hobby, not a career.

## Unit 13. New Homes for Animals

Starting in April, the Serengeti grassland will be emptied, as a mass migration of animals set out in search of water and food, such as green grass. In the Serengeti desert, herbivores, such as zebras and gazelles, will begin a mass movement as the dry season begins. They are followed by predators, like lions, cheetahs, and hyenas. When the rainy season comes to Serengeti in October, the animals return south, making it the largest migration in the world, a migration that stretches over 621 miles.

David S. Wilcove, Professor of Ecology at Princeton University, and Professor Martin Wikelski, a bird scientist at Max Planck Institute, both say that animal migration is disrupted as a result of human activities and environmental destruction.

Animal rights activists say animals must make extra efforts these days to ensure a safe route to their new migratory homes.

Changes have been seen not only in migratory birds but also in other migratory animals. Dr. Joel Berger has said the Mongolian saiga, an endangered antelope's route to and from dry and semi-arid grasslands in central Asia has been changing over the past two decades, and due to this, its population is rapidly declining.

Dr. Berger's team followed the herd's route with the help of GPS necklaces attached to some female saigas. They found that the path of the animals' migration was being changed by artificial elements. In addition, more than 95 percent of the species had disappeared from their total count, making them less than 50,000 in total population. Experts are worried that humans are not only changing animals' paths but also changing animals' habits.

This is only one example of the negative effects climate change is having on animals all over the globe. Scientists are doing research and development in the study, preservation, and recreation of habitats for animals displaced by human development.

Creating new homes for animals is a very important area of study in our current day and age.

## Unit 14. Doctor Fish

Garra rufa, also known as 'doctor fish,' is a species of freshwater fish native to Turkey and the Middle East. As the ecosystem of high temperature, isolated in the highlands, created an absolute shortage of marine plankton, Garra rufa instead fed on damaged skin and dead skin cells to make up for the lack of protein in their diet.

The Garra rufa is now being used to treat skin diseases, as it eats only dead cells and leaves the living flesh. People put their feet in a tank full of water with the fish, and the fish feed on the dead tissues on people's feet. However, there are disagreements over whether the fish are actually useful in treating skin diseases.

The Garra rufa is mainly found in Turkey, Syria, Iran, and Iraq. It is also raised as a pet, and it feeds on algae when kept in fish tanks.

Recently, British media have suggested that people with weakened immune systems should be cautious about using doctor fish, which may increase risk of infection. Additionally, those infected with HIV or hepatitis C should avoid using doctor fish.

## Unit 15. DNA Bank

The Frozen Ark and Our Frozen Zoo are two of many DNA banks that store the genes of endangered species. They collect and store tissues, cells, and the DNA of animals facing extinction. They also study these animals' tissues and DNA, and keep detailed records that can be used by scientists and researchers.

A DNA bank's goal is to keep the DNA and other collected materials safe and to store and distribute information about the current extinction crisis. The Frozen Ark currently operates in 12 countries and has samples from 48,000 species. Our Frozen Zoo is in the process of investigating the DNA of 10,000 species—making detailed records of the animals' DNA so they can understand the animals' complete DNA code. The hope is that this information will eventually allow us to understand enough about these animals to help in their reproduction and to rescue them before they go extinct.

Animal extinction is a concern that involves all of us, as, if one species goes extinct, it can negatively impact the entire planet. Human beings are the leading cause of animal extinction due to development of land, pollution, and hunting. More knowledge of endangered species' DNA will allow advances in our understanding of animals' biology and directly aid in their conservation and preservation of the species.

Presently, the Frozen Zoo is studying stem cell technologies in an attempt to bring back the northern white rhino. 'Sudan,' the world's last male northern white rhino, died in March 2018 on wildlife preserve in Kenya. However, scientists are working with preserved genetic materials in an effort to repopulate the species. Unfortunately, the last living northern white rhino females are not healthy enough to bear calves. Scientists are hoping to use a subspecies, the southern white rhino, as a surrogate to implant a preserved northern white rhino embryo to carry the calf to term<sup>9</sup>.

If they succeed, it will be the first species that humanity has brought back from the verge of extinction.

It is essential we continue to help the endangered animals on our planet, as they keep their environments, which are also our environments, in balance.

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<sup>9</sup> carry to term: idiom. to carry out a pregnancy

## Unit 16. Domestication

Dogs are the best examples of humans' domestication of animals. Dogs were first domesticated in Central Asia around 15,000 years ago. Archaeological records show the first undisputed, domesticated dog remains are around 14,200 years old, with disputed remains occurring up to 36,000 years ago. Dogs were first domesticated, or 'tamed' to be used by human hunter-gathers. Once the animals were captured and taught to live peacefully with humans, breeders chose animals based on the traits they would like to see more of.

For example, the hound dog is a breed known for locating and recovering prey for its master. The hound dog's ancestors, therefore, were likely chosen and bred based on traits such as a powerful sense of smell and good endurance, because they can travel for long periods of time without rest.

Plants, goats, cattle and other animals began being domesticated in or around 9,500 BCE, which was also the onset of the Neolithic Period. Like animals, different foods, such as grains, were first gathered from the wild and then picked and humans planted the best crops which were chosen for traits such as yield and hardiness.

Emmer, a wild grain which still exists today, is the ancestor of wheat. Compared to emmer, wheat has shorter leaf longevity, grows quicker, and has higher nitrogen content. Thanks to domestication, emmer has been vastly improved upon.

Domestication is a long, ongoing process that occurs over centuries. Humans must take good care of our domesticated plants and animals; as plants and animals are deliberately manipulated over time, they are no longer well-adapted to live without the care and attention of humans.