UNIT II

II. 1. READING.

MOON COLONY.

The next great land area that man hopes to colonize is the moon. In size it is nearly equal to the area of North and South America. However, it presents a hostile environment. Temperatures range from + 120 to — 150 degrees Centigrade. There is no air, no water.

Today is considerable scientific speculation about living on the moon. When man will begin life on the lunar surface is still not determined. But experts believe that colonization will take place in three steps. First, there will be increasing periods of exploration with temporary shelters. These periods will be followed by longer stays with housing under the surface of the moon and systems necessary to support life brought by the colonizers themselves. Finally, colonies that are ecologically and economically self-sustaining will be established.

The principal job of the early settlers will be to stay alive. They will have to build shelters to maintain an atmosphere like that of earth. They will have to plant crops under huge domes to produce food and oxygen and find water sources. After this is done, the settlers will have time to explore the possibilities of commercial development and to make discoveries important to science.

The characteristics of the moon that make it bad for human survival may make it ideal for certain kinds of manufacturing. Operations that require a vacuum, extreme cold, or sterility are an example. Precision ball bearings, industrial diamonds, or pharmaceuticals might be produced on the moon.

The most immediate interest in the moon, however, is a scientific one. Geologists can explore the history and composition of the satellite. Meteorologists will have opportunities to forecast weather on earth. Cosmologists can study the origin of the solar system. Astronomers can use their optical telescopes and radiotelescopes free of atmospheric and man-made distortions. And perhaps at some distant date the moon can serve as a base from which space explorers can travel to other planets in earth's solar system and to worlds beyond.

OBJETIVO: El alumno, de acuerdo con estructuras gramaticales aprendidas con anterioridad comprenderá la información que presenta la lectura: "Colonia Lunar".

VOCABULARY

NOUNS

1. astronomer - astrónomo.
2. atmosphere - atmósfera.
3. ball bearing - rodamientos.
4. cold - frío.
5. colonizers - colonizadores.
6. cosmologists - cosmólogos.
7. crops - cosechas, sembradíos.
8. development - desarrollo.
9. discoveries - descubrimientos.
10. distortions - distorsiones.
11. domes - cúpula.
12. environment - medio ambiente.
13. sterility - esterilidad.
14. explorers - exploradores.
15. geologists - geólogos.
16. job - trabajo.
17. kinds - tipos, clases.
18. manufacturing - manufacturas.
19. meteorologists - metereólogos.
20. pharmaceuticals - productos farmacéuticos.
21. range - poner en posición, vasta extensión.
22. size - tamaño.
23. satellite - satélite.
24. settlers - colonizadores.
25. shelters - refugios.
26. sources - fuentes.
27. speculation - especulación.
28. steps - pasos, etapas.
29. vacuum - vacío.
30. survival - sobrevivencia.
31. surface - superficie.
32. weather - clima.

ADJECTIVES

1. alive - vivo.
2. bad - malo.
3. considerable - considerable.
4. equal - igual.
5. free - libre.
6. hostile - hostil.
7. huge - enorme.

VERBS

1. to believe - creer.
2. to bring - traer.
3. to build - construir.
4. to colonize - colonizar.
5. to do - hacer
6. to establish - establecer.
7. to find - encontrar.
8. to forecast - pronosticar.
9. to increase - incrementar.
10. to make - hacer.
11. to maintain - mantener.
12. to plant - plantar, sembrar.
13. to produce - producir.
14. to serve - servir.
15. to stay - quedar-se, permanecer.
16. to support - soportar, aguantar.
17. to take place - llevar a cabo.
18. to travel - viajar.

OTHER WORDS

1. beyond - más allá de.
2. but - pero.
3. ecologically - ecológicamente.
4. economically - económicamente.
5. however - sin embargo.
6. man-made - hecho por el hombre.
7. nearly - cerca de, casi.
8. perhaps - quizá.
9. self-sustaining - independiente, automantenido.

II. 1.1. Translate to Spanish the reading: "Moon colony".

OBJETIVO: El alumno, para demostrar el grado de comprensión alcanzado sobre la lectura: "Colonia Lunar", será capaz de traducirla al español.

COMPREHENSION EXERCISES

II. 1.2. Briefly answer in Spanish the following questions according to the reading: "Moon colony".

1. Where does man desire to construct a colony?
2. When will life begin on the surface of the moon?
3. What will the principal work of the first colonizers be?
4. What do the cosmologists think they can do on the moon?
5. What way will the meteorologists be benefited by?

II. 1.3. Choose the corresponding letter to the correct answer and place it in the parenthesis. ( )

1. What are the temperatures on the moon? ..... ( )
   a) They vary from + 50° to — 60°C.
   b) They vary from + 120° to — 150°C.
   c) They vary from + 150° to — 200°C.
2. How many phases do the scientists think will be necessary to colonize the moon?
   a) Five steps.
   b) Six steps.
   c) Three steps.
3. What reason must the first colonizers construct shelters for? ..... ( )
   a) To protect themselves of the cold.
   b) To sleep without worry.
   c) To maintain an atmosphere like that of earth.
4. What will moon colonists have to do in order to survive? ..... ( )
   a) They will have to look for gold and diamonds.
   b) They will have to produce industries and factories.
   c) They will have to plant crops, to produce food and oxygen and find water sources.
5. What can astrologists use with all liberty? ..... ( )
   a) Their optical telescopes and radiotelescopes.
   b) Their rockets and space equipment.
   c) Their food and medicines.

OBJETIVO: El alumno, respondiendo por escrito a los ejercicios comprobará el grado de comprensión alcanzado sobre la lectura: "Colonia Lunar".

II. 1.4. Write true (T) or false (F) in the following sentences.

1. The moon is nearly equal in size to the area of North and South America. _____
2. The main job of early settlers on the moon will be to explore the area for oil, gold, and silver. _____
3. The atmosphere of the moon has no air. _____
4. A colony in the moon could help meteorologists forecast the weather on earth. _____
5. The pleasant temperatures on the moon will make human survival relatively easy. _____

II. 1.5. Relate both columns inserting the number that corresponds.

1. Aluminium
2. Balloon
3. Colonize
4. Astronomer
5. Solar system
6. Expand
7. Optical
8. Telescope
9. Satellite
10. Dome

( ) A smaller body in space which moves in a path around a larger one.

( ) A specialist in the study of heavenly bodies.

( ) To make larger.

( ) A light silver-white metal much used in combination with others metales.

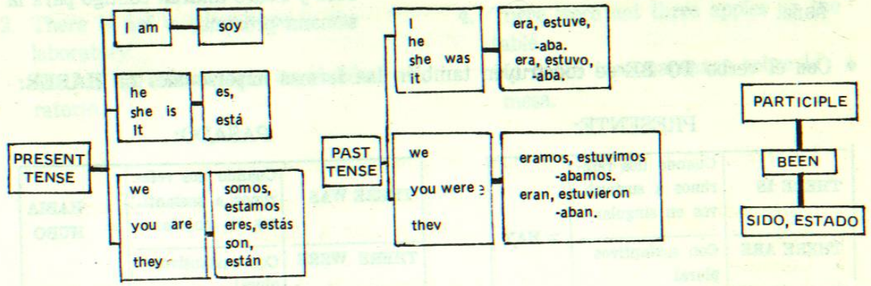
( ) To establish a colony.

OBJETIVO: El alumno, reconocerá las funciones de TO BE como verbo activo y en la construcción de las formas impersonales de haber.

II. 2. GRAMMATICAL SUMMARY.

A) EL VERBO TO BE.

TO BE = SER, ESTAR. Es uno de los verbos ingleses que, al igual que en español, presenta muchas variantes en su conjugación. Vamos a recordarla:



examples:

1. Christian Barnard **is** a cardiologist.
   Christian Barnard **es** un cardiólogo.
2. The hindus **are** in misery.
   Los hindúes **están** en la miseria.
3. I **am** a specialist of Educational Technology.
   Soy una especialista en tecnología educativa.
4. The U.S.A. and Canada **are** border countries.
   Los U.S.A. y Canadá **son** países fronterizos.
5. Marilyn Monroe **was** a very beautiful woman.
   Marilyn Monroe **fue** una mujer muy bella.
6. Richard and Ulla **were** in London last year.
   Ricardo y Ulla **estuvieron** en Londres el año pasado.

- **La formación del tiempo futuro simple** la construimos con el **auxiliar WILL antepuesto** a la forma **BE.**

FUTURO

SUJETO + WILL + BE + COMPLEMENTO

1. I **will be** rich in a few years.
   Seré rico en pocos años.

2. You **will be** in London the day after tomorrow.
   Tú **estarás** en Londres pasado mañana.

3. Enrique **will be** class representative next year.
   Enrique **será** el representante de la clase el año próximo.

4. José and Pedro **will be** with you by next week.
   José y Pedro **estarán** contigo para la semana próxima.

- **Con** el verbo **TO BE** se construyen también **las formas impersonales de HABER:**

PRESENTE:

THERE IS	Cuando nos referimos a sustantivos en singular	= HAY
THERE ARE	Con sustantivos plural	

PASADO:

THERE WAS	Cuando nos referimos a sustantivos en singular	= HABIA HUBO
THERE WERE	Con sustantivos plural	

examples:

1. **There are** many books in the library.
   Hay muchos libros en la biblioteca.

2. **There is** a microscope in the laboratory.
   Hay un microscopio en el laboratorio.

3. **There was** a big yard in the school.
   Había un gran patio en la escuela.

4. **There were** many paintings in the gallery.
   Había muchas pinturas en la exposición.

- **La negación en las formas impersonales de haber** se construye agregándoles la partícula **NO** o **NOT** después del auxiliar TO BE.

- **Usamos NO** antes de un **sustantivo** o antes de un **adjetivo** seguido de un sustantivo.
  examples:

1. There are **no windows** here.
   No hay **ventanas** aquí.

2. There is **no chair** for the Principal.
   No hay una **silla** para el director.

3. There are **no big** windows here.
   No hay ventanas **grandes** aquí.

4. There is **no good** chair for the Principal.
   No hay una **buena** silla para el director.

- **Usamos NOT** antes de otras palabras.
  examples:

1. There are **not many** books in the library.
   No hay **muchos** libros en la biblioteca.

2. There is **not a** microscope in the laboratory.
   No hay **un** microscopio en el laboratorio.

3. There was **not a** big yard in the school.
   No había **un** patio grande en la escuela.

4. There were **not three** apples on the table.
   No había **tres** manzanas sobre la mesa.

OBJETIVO: El alumno, por escrito, aplicará el verbo TO BE en tiempo presente, pasado, futuro y en las formas impersonales de haber.

A) GRAMMATICAL EXERCISES

II.2.1. Fill in the blanks with the corresponding verbal form of the **present, past** or **future** tense of the verb **TO BE.** Then translate the sentences to Spanish.

1. The agricultural resources _____ very important in our time.
2. Neil Armstrong _____ the first man that reached the moon.
3. The solar energy _____ vital for man.
4. Energetics _____ scarce by 1995.
5. Linda _____ a pretty blond girl.
6. You _____ the ideal person for this job.
7. The spilling of "Ixtoc I" well _____ a disaster last year.
8. The countries _____ in peace when arms no longer are made.
9. Elvis Presley _____ a great rock singer.
10. Lance and Paul _____ here next summer.
11. Diane and Elsie _____ intelligent sisters.
12. Mercury and Earth _____ planets that _____ in the solar system.
13. The Mayas _____ brillant astrologists.
14. I _____ a professor at the University of Oxford.
15. The U.S.A. _____ the next site of the Olympic games.
16. Many countries _____ in the last Olympic games.
17. The Greek Platon and the Roman Pliny _____ great philosophers.

18. A microscope _____ an instrument of great help in a laboratory.
19. I _____ in Paris last year.
20. Men _____ social beings by nature.

II. 2.2. Fill in the blanks with **there is** or **there are,** and then translate the sentences to Spanish.

1. _____ more asteroides than planets in the solar system.
2. _____ many Chinese in the world.
3. _____ a serious economic world problem.
4. _____ different kinds of metal in Mexico.
5. _____ only one heart in the human body.
6. In the modern world _____ many means of communication.
7. For each tissue _____ a type of cell.
8. _____ a large intestine in the digestive system.
9. _____ a pyramid called the Sphinx of Egypt.
10. _____ red pencils on the table.

II. 2.3. Change the sentences of exercise II.2.2. to **negative form.**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____