

Module 4  
*Invention and Discoveries  
That Change The World*

**TO THE STUDENT**

Welcome to this module! You must be very eager to start with the learning activities. The activities in the module have been designed to provide you with rich and stimulating learning experiences that will help you communicate better in English! Familiarize yourself with the different sections of this module.

*What are the parts of this module?*

The different sections of the module are presented by the following headings and icons.



**MODULE NUMBER AND TITLE** appears on the first page of the module is represented by the icon on the left. The module number and the title are followed by a picture and a brief introduction which tells you what the module covers. You should read carefully the title and the introduction to give you an idea of the exciting things in store for you.



**WHAT THIS MODULE IS ABOUT** provides you insights on what you are going to learn. This section encourages you to read carefully the activities you need to work on.



**WHAT YOU ARE EXPECTED TO LEARN FROM THIS MODULE** This section lists what you should learn after going through the activities in the module. You can use this list to check your own learning.



**HOW TO WORK ON THIS MODULE.** This section provides the steps that you need to do in accomplishing the activities.



**HOW MUCH DO YOU KNOW.** Assesses what you already know about the skills you will learn in the module. Do not worry if you fail to answer all the question. After working on the various module activities, you will take similar test.



**ACTIVITIES** consist of a variety of learning experiences and exercises designed to help you develop the skills and competencies covered in this module. The icon on the left introduces this section. The learning areas are also introduced by a specific icon. The icons and the titles serve as your guide on the language activities you are to focus on: listening, speaking, vocabulary, reading, grammar, literature and writing. You should not skip any of the activities. They have been sequenced to help you achieve what you are expected to learn from this module. After each exercise, you are invited to check your answer under the **Check Yourself** section.

Following are the specific icons for the specific activities discussed above.



A listening lesson is introduced by this icon.



This icon introduces a speaking lesson.



A reading lesson is introduced by this icon.



This icon introduces a grammar lesson.



A writing lesson is introduced by this icon.



Literature is introduced by this icon.



A vocabulary activity is introduced by this icon.



**KEY POINTS** provides the key terms, concepts and generalization from this module.

*Grammar* lessons are clearly discussed in this part.



**HOW MUCH DID YOU LEARN.** After you have worked on all the activities in the module, check on how much you have achieved. It has the same icons as the **HOW MUCH DO YOU KNOW.**



**CHECK YOURSELF** provides the answers to the exercises as well as the answers to **HOW MUCH DO YOU KNOW** and **HOW MUCH DID YOU LEARN.** After checking your answer, go over the topics or items you missed.



## *How to Learn From This Module*

1. Study the cover. Read the title. What does it mean to you? Look at the pictures. What do you see? From the title and the pictures what do you think is the module about?
2. Go over the pages of the module. What are the different parts? What do you think you will learn? What do you think you will be doing?
3. Read the sections, **What This Module Is About** and **What You Are Expected to Learn.** Were your guesses right? Are you clear now on what you will learn and do?
4. You will find exercises to work on. **Write you answers on these exercises on a separate sheet or in your English notebook.**
5. Check your answers to each exercise against **Check Yourself.** Read carefully the sentences that explain the answer.

Good Luck!



## *What This Module Is About*

Inventions and discoveries are new findings that contribute to human knowledge and appreciation of life. Often many discoveries and inventions are made because people realize the many benefits they contribute to humankind. Yes, they help people find solutions to problems in most cases.

Nothing is more important for a student like you to be interested in seeking for information on how you can contribute in making this world a better place to live in and in satisfying human life. For these reasons, it is necessary for you to develop a desirable personal value of sharing your skills, talents and knowledge in line with invention and discoveries that change the world.

How will that be possible? This module will help you to acquire certain degree of competence that will serve as a take off in making a difference.

## *What You Are Expected To Learn*



- Listening to pertinent information purposefully.
- Relay information listening to accurately.
- Sequence ideas in describing a process
- Skim for key ideas using the correct expressions.
- Scan for words with references to their etymology
- Express hopes and wishes using correct expressions
- Realize the Boons and Banes of inventions/discoveries in working towards a better quality of life.
- Write correct footnote entries.

## *How Much Do You Know*



Now that you know what you are expected to learn from this Module, let's find out first how much you know about them. Follow the directions for each set of tasks

### READING

Direction: Read the news item carefully. Complete the statements that follow it.

1. A physically handicapped 39 – year old father was chosen as one of the winners in this year's search for the Pres. Ramon Magsaysay Outstanding Pilipino Worker Award.
2. Noli Gaerlan, a polio victim since he was one year old, was adjudged among the top three awards for the outstanding Filipino worker plum under the wage employed category by the selection of TESDA.

3. Gaerlan, who works as an instructor in Nueva Vizcaya, was chosen for his “invention of his instructional devices such as electronic component instructional material, panel board and parallel circuits and electronic board.”

4. A self – supporting student, Gaerlan completed a two – year course on General Radio Communication Operation. He is at present the head of the technical department and also an instructor of the Nueva Vizcaya Institute of Computer Science.

5. The TESDA national awards committee especially cited Gaerlan for his “exemplary performance in the application of his skill and the impact of his role to the country’s economy,” despite being physically handicapped.

6. Aside from a plaque, a P20,000 cash incentive and a scholarship grant, Gaerlan is also entitled to have one scholar per year to take up a technical course. The recipient scholar, he said, must come from indigent sector of the society.

- From: “A Polio Victim Wins An Award”, Tempo Aug. 2002 p. 6

1. The news item is all about \_\_\_\_\_.
  - A. Filipino worker
  - B. Noli Gaerlan, a polio victim
  - C. Nueva Vizcaya Institute of Computer Science
  - D. Technical Education and Skill Development Authority
2. According to the news, Gaerlan was award as RP’s outstanding \_\_\_\_\_.
  - A. father
  - B. handicapped
  - C. instructor
  - D. worker
3. The TESDA national award committee cited Gaerlan for his \_\_\_\_\_.
  - A. exemplary performance in the application of his skill
  - B. impact of his role to the country’s economy
  - C. being physically handicapped
  - D. all of the above
4. Gaerlan’s inventions are devices good for \_\_\_\_\_.
  - A. construction
  - B. electrification
  - C. instruction
  - D. invention
5. Aside from plaque, cash incentive and scholarship grant, Gaerlan is also entitled to have one scholar \_\_\_\_\_.
  - A. per year to take up technical course
  - B. per semester to take up technical course
  - C. per year to take college degree
  - D. per semester to take college degree
6. The recipient of Gaerlan’s scholarship grant must come from \_\_\_\_\_ sector of the society.
  - A. elite
  - B. indigent
  - C. handicapped
  - D. middle

# Vocabulary



Direction: Write the letter of the correct meaning for each underlined word. Use the word pool below

## Word Pool

- |                    |                         |
|--------------------|-------------------------|
| A. Disadvantaged   | D. model                |
| B. collision/force | E. motivation/stimulant |
| C. group           | F. poor                 |

1. His exemplary performance made him popular
2. Thank God! Handicapped persons are gifted.
3. The impact of your research is remarkable.
  
4. Incentives must be given to diligent workers.
5. Almost always the indigent receiver blessings.
6. He came from the plum of scientists.



# Grammar



Direction: From the word pool, choose the correct form of verb to complete each sentence.

## Word Pool:

- |                    |                     |
|--------------------|---------------------|
| A. could be cooked | E. can be collected |
| B. could be washed | F. can be used      |
| C. can be polished | G. could store      |
| D. can do          | H. can launder      |

With the modern day electric application hopefully (1) household work in record time with minimal effort. With a push of a button, we (2) soiled clothes. Floors (3) by a floor polisher and the dirt (4) by a vacuum cleaner. We wish in seconds, food (5) without using microwave oven and even without using refrigerator, we (6) food far future use. Finally soiled dishes (7) clean without using dish washer. Machine, indeed, (8) to lighten household work.

# Listening

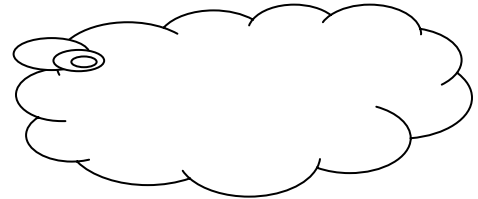
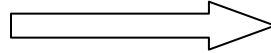
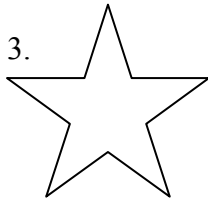
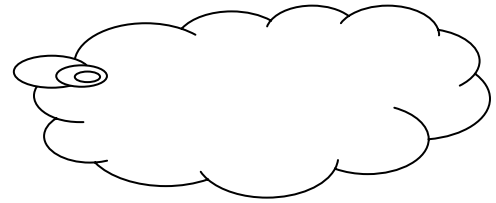
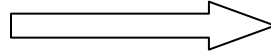
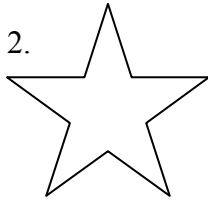
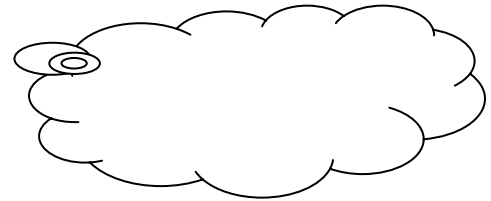
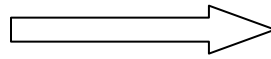
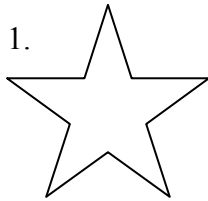


## Activity 1

Think of some famous inventions and discoveries that change the world. List at least three (3) which you believe affect man's life greatly. On your paper, copy the illustration below and plot your entries as indicated.

FAMOUS INVENTIONS

EFFECTS in MAN'S LIFE

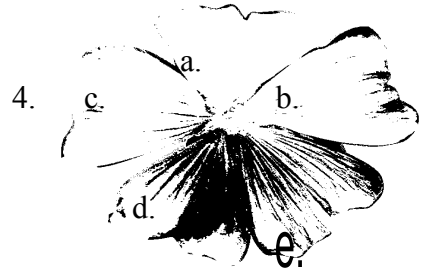
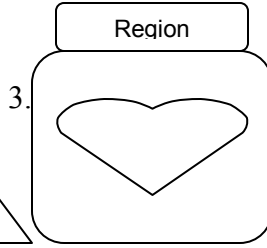
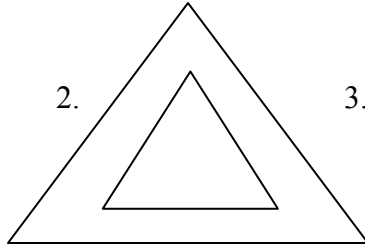


## Activity 2

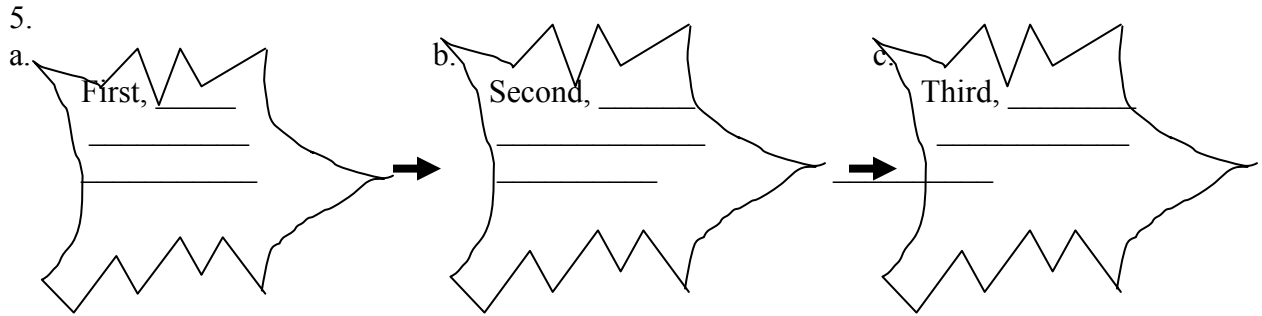
Listen to your friend read the article and find out the answers to the following questions.

1. What is the research about?
2. Who conducted the research?
3. What region did they represent?
4. What are the uses of ink?
  - Describe the process.
  - What benefits may be gained from the research?

Note: On your paper, copy the illustrations below and plot your answer to the questions as indicated.



What?

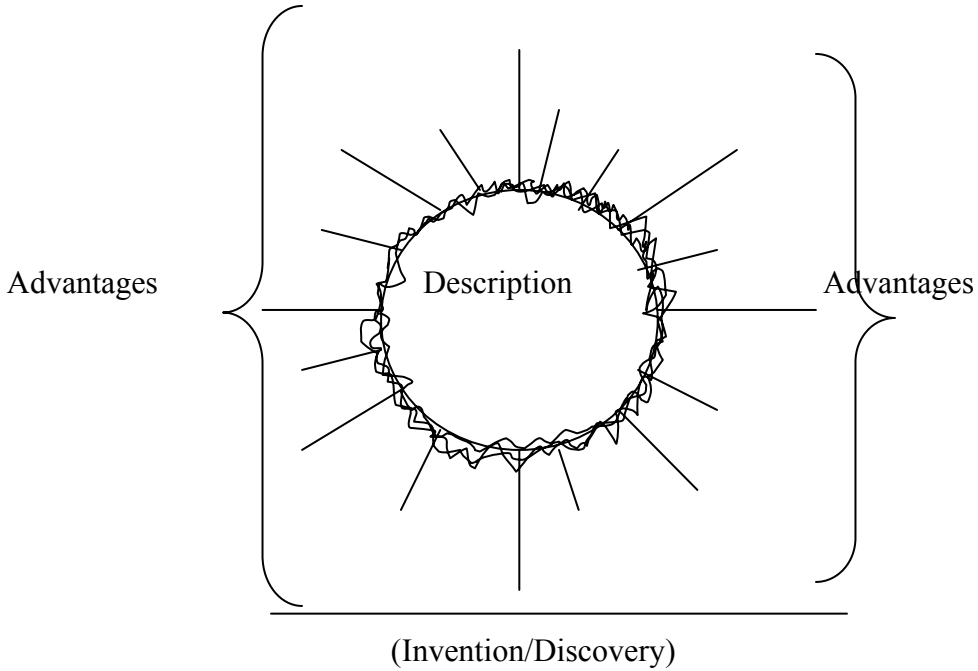


| BENEFITS |    |
|----------|----|
| a.       | b. |
| c.       | d. |



### Activity 3

Which of the present day technological gadgets or scientific inventions do you like most? Describe it and talk about its advantages in your life as well as in other people's lives. Copy the following sungram on your paper and plot your entries as indicated.



### Activity 4

Reflect on what invention you would like to offer to the world today. Describe it in your reflective journal.

|             |   |
|-------------|---|
| REFLECTIONS | Date: _____   |
|             | The invention I would like to Offer to the world is _____ |
| _____       | _____   |
| _____       | _____   |
| _____       | _____   |
| _____       | _____   |
| _____       | _____   |
| _____       | _____   |
| _____       | _____   |

## Reading

It's possible you're not afraid of what's new and challenging. It may be very promising and may open opportunities in your life for self expression and fulfillment. Every moment is a new one. Go with the time for new discoveries and inventions that change the world.

## Vocabulary

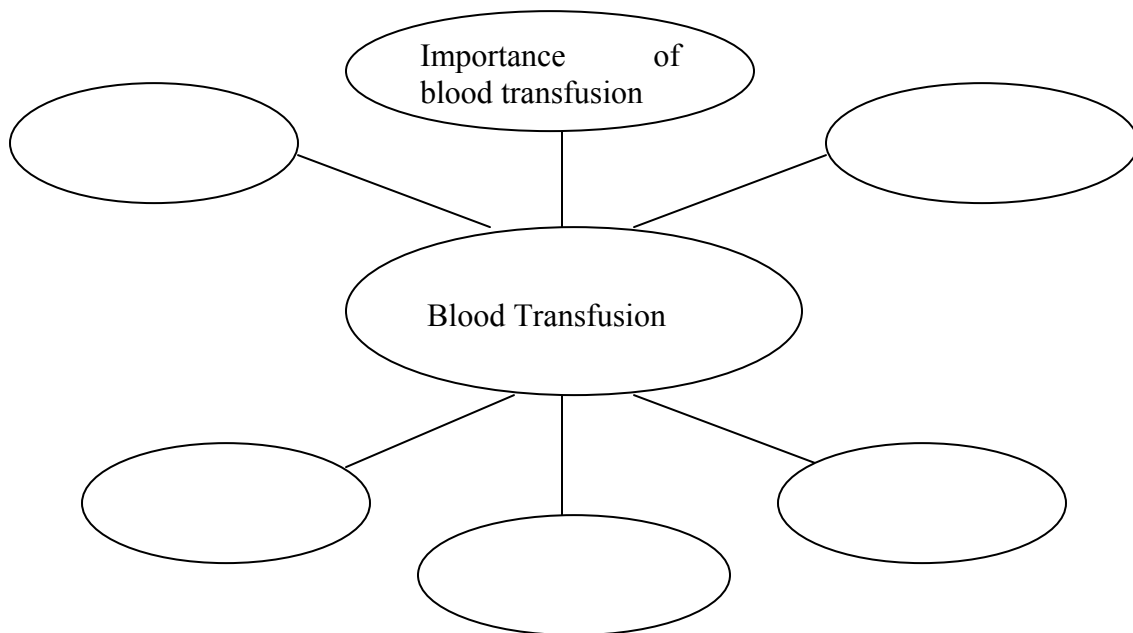
### Activity 1

The reading text contains words derived from Greek, Latin and French language. The etymology of some words is given. Scan for the following words referred to in the text.

1. From the Greek meaning poison
2. From the Latin meaning kidneys
3. From the Greek meaning serve or take care of
4. From the Latin "Centrum" meaning directed or away from the center
5. From the French "immunes" meaning exempt or not susceptible
6. From the Greek "Aphaeresis" meaning to take away

### Activity 2 Read "Blood Transfusion"

What do doctors do to patients who lose a lot of blood? Complete the following web.



### **Blood Transfusion**

Student: Dr. Reyes, what is blood transfusion?

Dr. Reyes: Blood transfusion is the transfer of blood from one person to a patient who has suffered from a severe loss of blood. Blood transfusion is life-saving. In fact, it is now almost a routine procedure in many hospitals.

Student: What is the procedure of blood transfusion?

Dr. Reyes: First, a sample of the blood of the donor is mixed with that of patient in order to see that the two types of blood, when mixed do not cause clumping of the red blood cells because such clumps would block the small blood vessels of the recipient. All human beings belong to one of four main blood groups, namely, A, B, AB, and O. Only certain groups do not clump the red cell of other groups on mixing. Also, before giving transfusion, one must be sure that the donor is healthy. This means that he has not had an infectious disease. The Wasserman test on donor must always be negative before his or her blood is used for transfusion.

Student: We have read about blood banks. What are these?

Dr. Reyes: because blood should be given immediately in emergencies, most hospitals now have “blood banks” in which blood of various types is stored in a suitable refrigerator for more than two weeks without harming the red cells that are used in transfusion, the plasma having been separated from the cells. Other patients may require only a plasma transfusion. With modern laboratory techniques, the water of the plasma may be evaporated leaving a powder which can be dissolved in water before use.

Student: Is transfusion a dangerous process?

Dr. Reyes: It has its inherent risks but now scientists have discovered a new and safer way to transfuse blood. In medicine, transfusion is called “Aphaeresis” (from the Greek word meaning “to take away by force”). It refers to procedure which makes use of centrifugal force to separated blood from its various fractions of components by means of a blood cells separator called an aphaeresis machine.

Student: How does it work, Dr. Reyes?

Dr. Reyes” As blood is drawn during an aphaeresis blood donation, an anticoagulant fluid is added to the blood to prevent clotting while blood is outside the body. After the desire amount of a specific blood component is collected in a bag for patient’s use, the rest of the blood not needed by the patient is promptly returned to the donor.

Student: What are the advantages of this new machine over the old one?

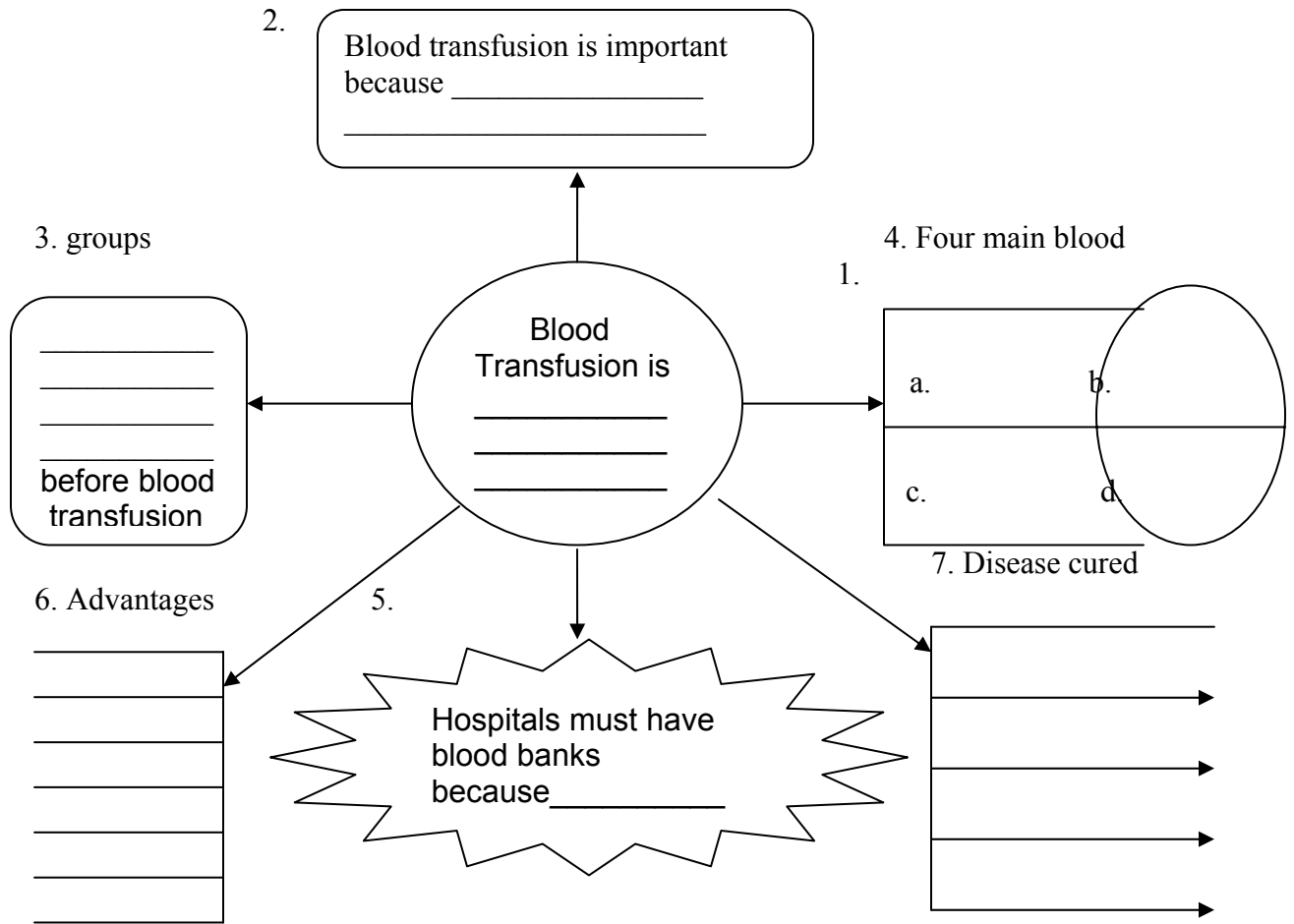
Dr. Reyes: The blood volume drawn from the donor during the procedure is much less than the usual amount removed during a conventional blood letting session, making it safe and convenient for the donor. In addition, the procedure minimizes patient exposure to several donors, thus reducing the risks of infectious disease transmission during transfusion. Furthermore, the aphaeresis machine can also be used as a therapeutic tool to remove unwanted elements in the patient’s plasma like antibodies, toxins or poisons, as well as excessive numbers of white cell, platelets, or red cells that may cause or aggravate diseases or disturb the normal circulation. Not only certain blood disorders but also immunologic diseases of the nervous system, renal, and liver diseases can benefit most from this a machine.

Student: Thank you, Dr. Reyes.

### Activity 3

Supply the details by answering the following questions:

1. As described by Dr. Reyes, what is blood transfusion?
2. Why is blood transfusion important?
3. What should be done before blood transfusion?
4. What are the four main blood groups?
5. Why should hospitals have blood banks?
6. What are the advantages of the new machine that to transfuses blood?
7. What disease can be cured because of this new machine?



**Activity 4**

Number the following steps in their proper sequence:"

- a. \_\_\_\_\_ Next, these blood samples are mixed in order to see that the two bloods when mixing do not cause clumping of the red blood cells or RBC.
- b. \_\_\_\_\_ Then, the blood is stored in the refrigerator ready for use.
- c. \_\_\_\_\_ First, blood samples of the donor and the patient are drawn.

### Activity 5

These are certain groups of people whose religions forbid them from having blood transfusion. for they would rather die than have blood transfusion. Do you agree with them? Why do not? Write your reaction on the space provided.



They shouldn't be forbidden to have blood transfusion because it is

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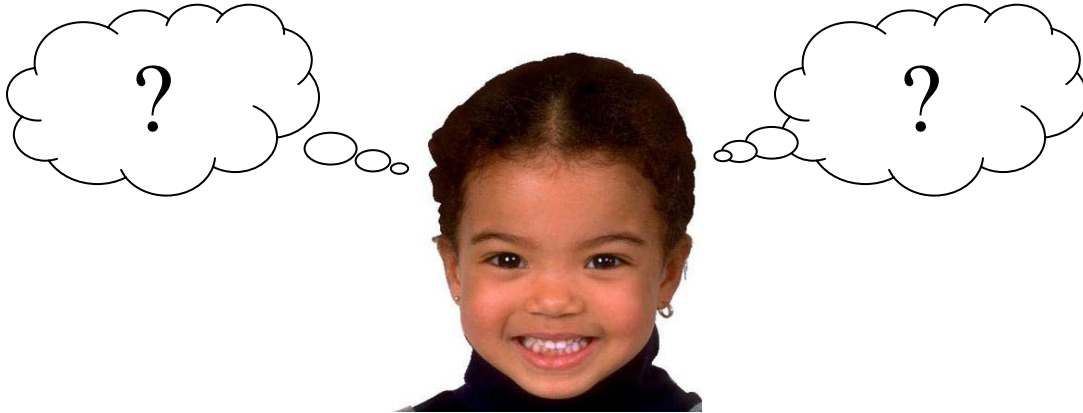
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### Grammar

#### Activity 1 Crack the Code

Find out what this girl is thinking.



Use the set of numbers to come up with sensible sentences. Each number represent a letter shown in the number pool below.

- |                |               |                  |        |
|----------------|---------------|------------------|--------|
| 8-7-3-5-4-6-17 | 7-15-18-1-2   | 2-7-1            | 9-3-19 |
| 8-15-19-3-6-1  | 14-12-15-15-8 | 2-15-13-1-8-3 17 |        |
- |                 |              |             |
|-----------------|--------------|-------------|
| 8-15-9-6-15-5-2 | 16-4-2-7-1-8 | 6-7-1-17    |
| 9-15-10-12-8    | 2-3-11-1     | 12-4-11-1-2 |

### Number Pool

|         |         |         |
|---------|---------|---------|
| A. = 3  | I. = 4  | S. = 2  |
| B. = 14 | L. = 12 | T. = 6  |
| C. = 9  | M. = 13 | U. = 10 |
| D. = 8  | N. = 19 | V. = 11 |
| E. = 1  | O. = 15 | W. = 16 |
| H. = 7  | P. = 18 | Y. = 17 |
|         | R. = 5  |         |

### Activity 2

Read the following sentences and take note of how hope is expressed differently from a wish.

1. Charity hopes she can donate blood someday.
2. Doctors wished they could save all lives.
3. You can hope to do something different.
4. They wished they could live perfect lives.
5. I wish I could invent something for all people to be always happy.

### Activity 3

Consider how the sentences in Activity 2 are expressed and try answering these question.

1. What do sentences 1 and 3 have in common?
2. How do sentences 2, 4 and 5 differ from sentences 1 and 3?
3. When do we use can? How about could?

### Key Points



- The modal CAN is used with hope to express something possible.
- The modal COULD is used with wish to express something untrue or impossible.

#### Activity 4

Read the newspaper ad below and complete the following sentences.

1. The management wishes the internet \_\_\_\_\_.
2. With International roaming services people hope \_\_\_\_\_.

Now, with a greater number of dial – up phone lines.

Now, with international roaming services so you can access the Internet, send and pick up your E – mail anywhere in the world without paying long distance charges.

Now, with a fully staffed 24 hrs, 7 days a week help desk to assist up in all your needs.

#### Activity 5

Transform the five sentences below starting with

- The bank officials hope that through the Internet they \_\_\_\_\_.

1. Many local banks can't reach out untapped customers.
2. They can't depend on traditional banking system with the advent of Internet.
3. They can't offer an assurance that they can provide efficient service.
4. These banks can't put up their planned personal electronic system.
5. These bank can't facilitate transaction with modernized banking activities.

#### Activity 6

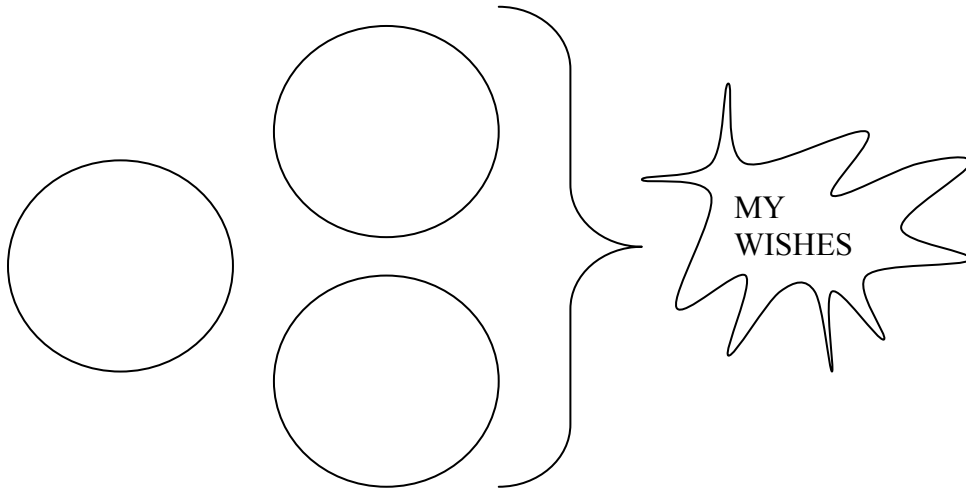
Use the appropriate form of the verb in parentheses in each of the following sentences.

- (allow) 1. The Internet wishes it \_\_\_\_\_ subscriber to dial up anywhere in the world without having been paid costly long – distance charges.
- (run) 2. The company hopes it \_\_\_\_\_ an aggressive campaign promoting Internet as the most natural evolution of global communication.
- (continue) 3. The company wishes it \_\_\_\_\_ to direct much of its energies in providing the best Internet services in the country.
- (look) 4. The Internet subscribers wish they \_\_\_\_\_ forward to faster more efficient downloading and uploading capabilities from their computers.
- (have) 5. For sure, people behind the company wish they \_\_\_\_\_ their hands full in promoting the whole concept of the Internet enhanced relationship.



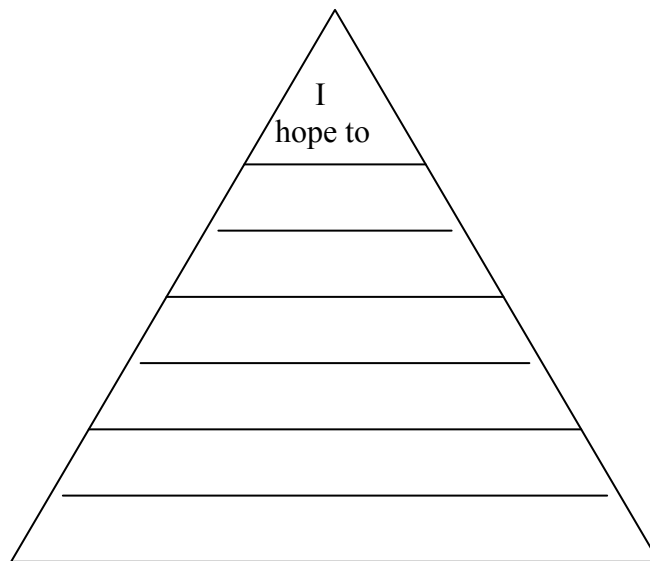
**Activity 7**

If you were given three wishes, what would they be? Express them in complete sentences and write them in three coins as shown below



**Activity 8**

Imagine you're asked by Mel Chiongko of GMA 7 on what you hope to accomplish after high school. Describe it and write your ideas in the pyramid like the one shown below.

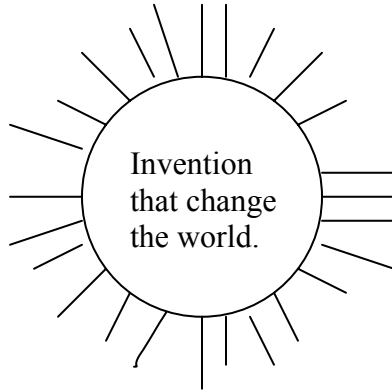


- ❖ You have improved a lot, I hope.  
Let's open and try this phase.

## Literature



**Activity 1** Using a sungram, enumerate the inventions that change the world.



## Vocabulary



### Activity 2

Vocabulary Development

Supply each sentence below with an appropriate idiom from the list.

Take over

fall off

Take in

broke down

1. Consider the speed at which computers work, one may think that they will soon \_\_\_\_\_ the world.
2. A computer is a large instrument consisting of hundreds of electronic wire. It can \_\_\_\_\_ plenty of information.
3. Our TV \_\_\_\_\_ last night, so I missed "WW2BM."

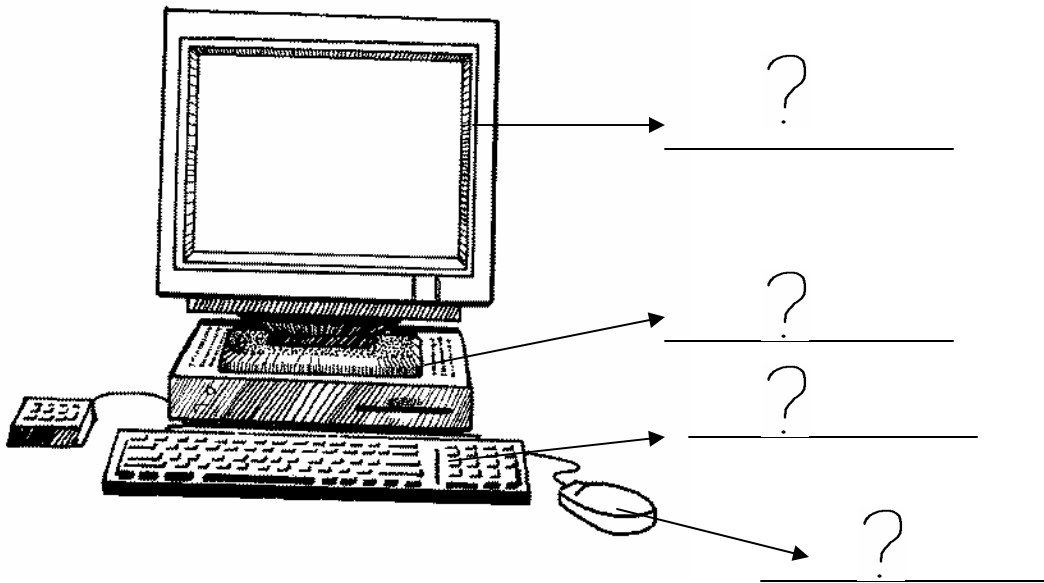
How's that for a start?

Surely, you feel great!

Let's move on!

### Activity 3

This time try to label some parts of the computer as shown in the picture.



**Activity 4** Read “The Wonder Machine” and answer the following.

1. What are the different uses of computer?
2. Explain what the writer means by “Whatever danger, therefore, from the computer lies not within the machine itself but within man himself – its inventor and master.”

#### **The Wonder Machine**

In today’s world, the computer is an all-powerful tool. It runs factories, plants, cities, teaches children, and even forecasts the future.

At home, you can program the computer to keep tab on family anniversaries such as birthdays, wedding, or deaths. You can also depend upon it to make out grocery lists, plan family budgets, prepare and computer income tax returns, and even play a mean game for you and your family’s entertainment.

If you take on a vacation trip, the computer can be set to water your lawn and turn on and off the light to make it appear as if you were home. And, if someone knocks on the front door or rings the back door buzzer, the computer can also be programmed to bark like a hundred-pound German shepherd. In fact, it can be set to stimulate your habits at home.

In a computerized hospital, the computer attends to your need and comfort as a patient. In the admission office, the computer is fed with data about your case. It searches its memory for your records of necessary for your particular case. It also assigns you to a room. It interprets your electrocardiograms. These are complex waveforms that are the pictorial representations of the electric potential produced by the constructions of your heart.

By feeding in the relevant information such as your blood pressure, weight, temperature, age, sex, and the symptoms of your illness, your attending or examining physicians seek the advice of computer in much the same way as he would a medical consultant. The computer thumbs its magnetic memory and supplies all the diseases that might explain your symptoms. Then, it offers the treatment. For his part, your doctor feels that the computer has failed to mention particular disease, as possible explanation for your symptoms, he may confront the computer with his observations or findings.

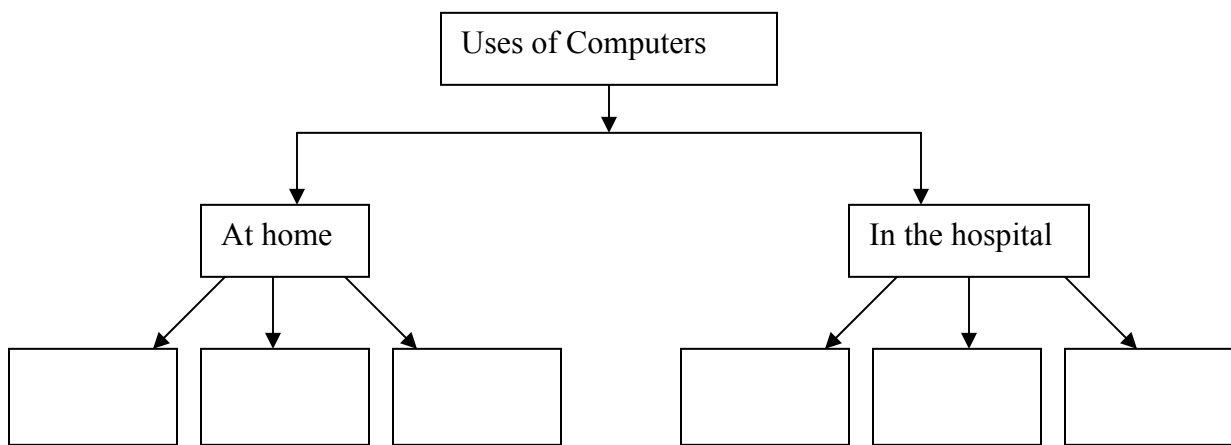
“Why,” he can ask the computer, “didn’t you include such and such disease as possibilities?” The computer gives its reasons for omitting the possibility.

The computer rightly deserves its name as the “wonder machine of science and technology.” It is indeed solving in milliseconds the problems which could take years to solve. It helps mankind gain an understanding of the farthest reaches of space and the depths of the oceans. And scientists are hopeful that the computer may yet lead man to an understanding of the mystery of life and death and of his own being.

While it is admitted that the computer is one powerful tool that can do many things, there is nothing mysterious about it compared to a human being. It is, after all, a man made, manned tool. Without man, it could not work. Whatever danger, therefore, from the computer lies not within the machine itself but, within man himself – its inventor and master.

### Activity 5

Give the details needed in the diagram below.



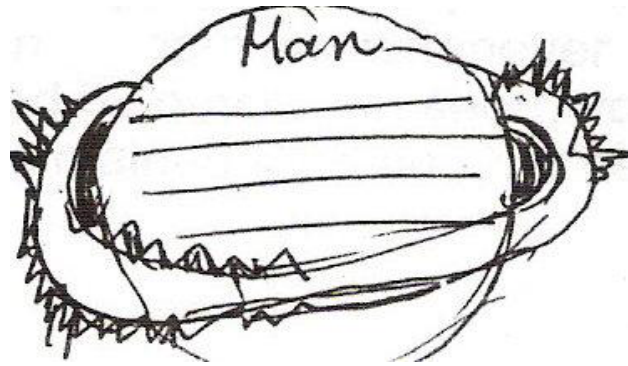
### Activity 6

Think it over and answer the following questions as briefly as you can.

1. How did the author describe the computer? Do you agree? Support your answer.
2. Would you consider computer as a perfect creation? Why?
3. Explain the following statement in your own words: “whatever danger, therefore, from the computer lies not within the machine itself but within man himself-its inventor and master.”
4. What is the author’s stand on computers? Give proofs for your answer.
5. What is the author’s purpose in writing the essay? Was he able to achieve his purpose? How?

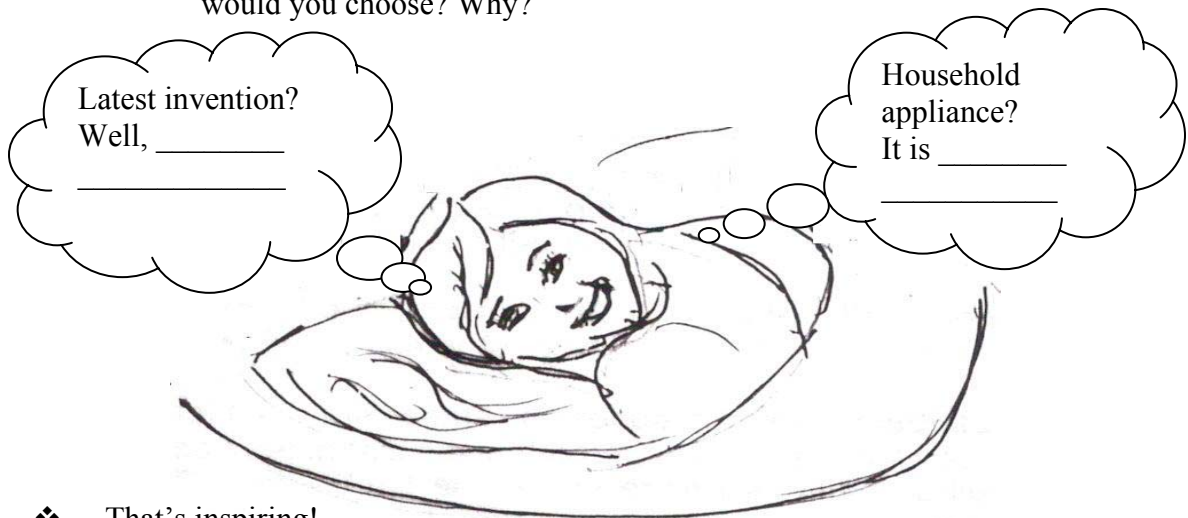
### Activity 7

Explain how man benefits from inventions and discoveries now and before. Plot your entries in the illustration shown below.



**Activity 8** Answer the following questions as briefly as you can. Plot your answer in the illustration shown below.

1. Among the latest inventions, which is most beneficial to students? Why?
2. If you could have one household appliance that has a mind of its own, which would you choose? Why?



❖ That’s inspiring!  
How about this one?



Footnoted are notes found at the bottom of some pages referring to certain items in the text.

### Why Are Footnotes Necessary?

Footnoted are necessary whenever you use a direct quotation or copy a diagram; whenever you construct a diagram from data provided by others. In short, you need a footnote for any material that you obtained from another person's work.

The only material that need not be footnoted is material that is of common knowledge. Thus, information such as the February revolution of 1986, the arrival of Magellan in the Philippine in 1521 are all matters of common knowledge and should not be documented.

### Two kinds of footnotes:

One gives the source of the item mentioned in the text and the other gives additional information about the item.

### Preparing footnotes:

A footnote has two parts:

- a) the superscript – a number written above the line which is placed at the end of the material being documented.
- b) The footnote proper – found at the bottom of the page which is numbered to correspond with the superscript.

When the source footnote is repeated, the following expressions are used in place of the title or facts of publication of the reference.

- a.) Ibid – if the same reference was cited earlier but other items comes immediately after a previously cited source; in this case, the name of the author and other facts are omitted.
- b.) Op. cit – if the same reference was cited earlier but other items come in between; in this case, only the author's surname and the page of the quoted material are indicated.

Example:

#### First Reference to a Book

Amelia Mapa, Trinidad Fidelino, Science and Technology Chemistry Textbook for Third Year, (Metro Manila: SD Publication inc. 1999), p.49.

Subsequent Reference

Ibid

Reference to a Magazine Article

Alan Maley, "Shall I Compare Thee to a Plastic Bag? – The Power of Compassion," Guidelines, Vol. 16, No. 2, December 1994, pp. 1-51

Reference to an Article in an Encyclopedia

Exploring the Solar System," Collier's Encyclopedia 1992 ed.

Reference to a Newspaper Article

"Global Warming: Found to Displace Specie," Today, Jan 28, 2001

## Activity 1

### Making Footnote Entries

The following bibliography was used in a certain research.

- **Books**

Carino, Isidro D. "The Joy of Pain". A Treasury of Stories. Quezon C. Carzon Resources and Management Services, 1996

Holleran, Renee. Prehospital Nursing. Missouri: Mosby Year Book 1986

Hurt, Walter. Alcohol and Biological Membranes. New York: The Guilt Press, 1990.

Organ, D. and Bateman T. Organizational Behavior. Illinois: Busin Publications, Inc., 1986

- **Magazines**

Carner, Myryl. "Things Teenagers Are Dying to Tell Their Parents." Health and Home. Vol. 33, No. 1, Jan-Feb. 1992.

Kenler, Jerry. "What Do You Mean I'm Not Literate?" World's Executive Digest. Nov. 1996.

Roberts, Gloria. "Choosing A Career." Health and Home. Vol. 33, No.2 March-April 1992.

\*Based on the above bibliography, make footnote entries in the order that they come. Be sure to use *ibid.* or *op. cit.* correctly.

1. You cited a definition from p. 64 "What Do You Mean I'm Not Literate?"
2. You cited another definition from p. 66 of the same article.
3. You quoted a passage from "The Joy of Pain" on p. 134.
4. You gave an explanation about computer literacy from p. 64 of "What Do You I'm Not Literate?"
5. You discussed "Transparent Consideration for Trauma Patients on p. 262 from Holleran's book.
6. You explained the meaning on individual differences which you got from Organs.
7. You referred again to the book of Organ for attitudinal problems.
8. You enumerated some causes of brain damage from Hurt's book.
9. You referred to Carner's article about some problems encountered took teenagers on p. 15 of the magazine.
10. You discussed how to make a better career choice which you took from Roberts.
11. You referred to Carner's article about the parents attitude towards teenage problem on p. 29 of the magazine.

## Key Points

- Comparing the Old versus the New System of Documentation  
There is another way of documenting one's work, instead of using footnotes which we have just discussed. This is through acknowledging the writer his surname and the year of his work was published, enclosed in parentheses.

Example:

In February, 1989, a representative from the Philippine government attended the International Conferences on Ozone in London. It was learned in this conference the Soviet Union is experiencng.... (Revkin, 1998)



## Activity 2

Write footnote for the following information. Use the item numbers as footnote numbers. Be sure to use correct punctuation.

| Author            | Article/title of the Book |                     | Publication Facts   |
|-------------------|---------------------------|---------------------|---|
| 1. Robert Carson  | “Vincent in Focus”        | Arts and Life       | Tayag Press Inc.<br>Quezon City 2001<br>p.52                      |
| 2. Carlos Gabriel | “Shades and Meaning”      | Life with Van Gough | Paranaque City Santos<br>and Farell Pub. House<br>2000 pp.114-115 |
| Francis Meyer     | “Mon With The Shovel”     | Modern Art          | New York<br>Publications<br>New York 1996<br>p.87                 |

**Activity 3** Number your paper from 1 to 3. For each number, tell what is wrong with the corresponding footnote. Each footnote has one error or omission.

1. Madeleine Black, Twenty First Century Act (Manila: Papyrus Publishing House, 2000), p.30.
2. Joyce Wilber, “Artist’s Moods” Arts and Life, (Lomat’s Press, Inc., 1999).
3. Henry Singh, “Mondrian: Life and Work”, Arts, (Henriett Bars Pub. House, Inc.) pp.78-79.

❖ That’s big deal, really!



## How Much Did You Learn

Reading 

Directions: Read the news article carefully. Complete the statements that follow it.

- 1.) Last September, India’s space scientists at the Space Research Institute in Bangalore launched the first satellite dedicated to education. 2.) Christened “EDUSAT”, the innovative satellite which is committed to education only, is capable of beaming entire classes and lectures which can be picked up at minimum cost by anyone who has to a T.V. set. 3.) The project was designed to reach out to provide education for 37 million school children within the next 7 years. 4.) It is also a notable example of the peaceful use of the “space race” to use technologies to help poor or disadvantaged people. 5.) EDUSAT will have multiple beams with one Kuband transponder which covers the

entire country, and five Kuband transponders that provide spot beams directed to the north, south, east, west sections of the country.

6.) The overall concept is to provide standardized quality education for the country's schoolchildren at a minimum cost of a T.V. set.

7.) EDUSAT was born in 2002 and this remarkable "school in the sky" is programmed in collaboration with 100 top educational institutions in India. 8.) There are lessons and lectures and papers by experts, much as a student would receive in public school or college courses. 9.) Since the content is the same for everyone, EDUSAT offers national quality control in education. 10.) It is of special value to remote and mountainous areas where it is difficult for the government to build schools and to hire qualified teachers to teach in remote areas.

11.) EDUSAT concept offers the world an example of the use of space to directly affect and uplift the lives of poor and isolated people.

1. The article is all about \_\_\_\_\_.  
A. Bangalore's Satellite  
B. education from the sky  
C. lessons and lectures  
D. Indian's space scientists
2. EDUSAT is the first satellite dedicated to \_\_\_\_\_.  
A. communication  
B. education  
C. social services  
D. transportation
3. Through EDUSAT classes and lectures can be picked up at minimum cost by anyone who has access to a/an \_\_\_\_\_.  
A. computer center  
B. research institute  
C. school building  
D. television set
4. EDUSAT was born in \_\_\_\_\_.  
A. 2002    B. 2003    C. 2004    D. 2005
5. Project EDUSAT is described as \_\_\_\_\_.  
A. beam transponder  
B. information satellite  
C. school in the sky  
D. scientist's cruncher
6. EDUSAT primarily offers national \_\_\_\_\_.  
A. peaceful use of T.V. set  
B. quality control in education  
C. social services transmission  
D. technological school
7. The primary reason why EDUSAT's concept is offered to the world is to \_\_\_\_\_.  
A. carry out an experiment  
B. launch an affordable education  
C. directly affect and uplift poor people lives  
D. spread information to the poor
8. Through EDUSAT, the government can be helped to solve problems in education like \_\_\_\_\_.  
A. lack of qualified teachers  
B. lack of school classrooms  
C. transportation for rural students  
D. all of the above

# Vocabulary



Directions: Write the letter of the correct meaning for each underlined word. Use the word pool.

- A. observable    C. joining forces    E. something new  
B. rays of light    D. service follower    F. machine that transmits and record data through satellite

1. The machine has multiple beams.
2. We need to have to have collaboration with the government.
3. People appreciate innovation always.
4. Technological advancements are products of remarkable inventions.
5. The program is sent via satellite .
6. Kuband Transponders covers the entire country.



# Grammar



Directions: Complete the sentences in the following paragraph by choosing the correct expressions from the word pool.

## Word Pool

- A. can correct    E. can point  
B. could be    F. can be filed  
C. could invent    G. can be made  
D. could be sent    H. can be retrieved

With the use of the latest inventions, we hope we (1.) out the office work also (2.) lighter and even more efficient. Records (3.) in computers and (4.) with the push button. Encoder's (5.) errors and can edit word without retyping the whole page. We wish scientists (6.) another gadget capable of producing copies in second message (7.) matter of second without using fax machine. It (8.) another breakthrough in science.

It's harvesting time once more!



## How Much Do You Know

### Reading



1. B → Noli Gaerlan, a polio victim
2. D → worker
3. D → all of the above
4. C → instruction
5. A → one scholar per year to take up technical course
6. B → indigent

### Vocabulary



1. D → (model)
2. A → (disadvantaged)
3. B → (collision/force)
4. E → (motivation/stimulant)
5. F → (poor)
6. C → (group)



### Grammar



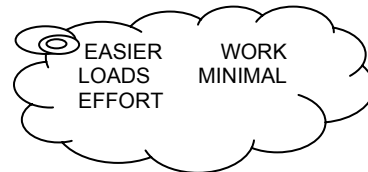
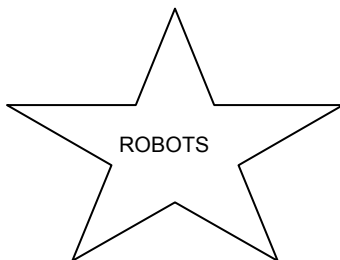
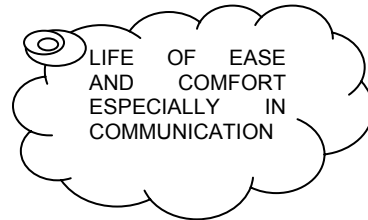
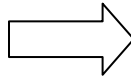
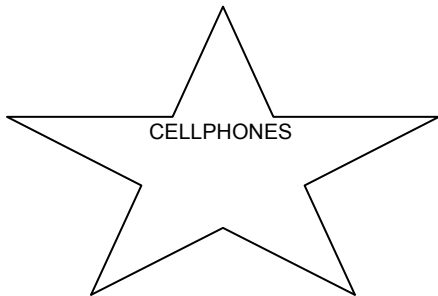
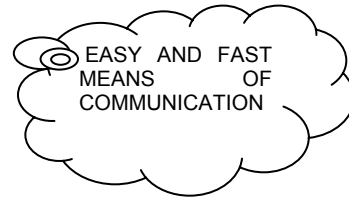
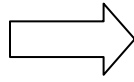
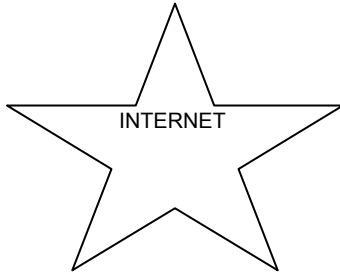
1. D → can do
2. H → can launder
3. C → can be polished
4. E → can be collected
5. A → could be cooked
6. G → could store
7. B → could be washed
8. F → can be used

# Listening



## Activity 1 FAMOUS INVENTIONS

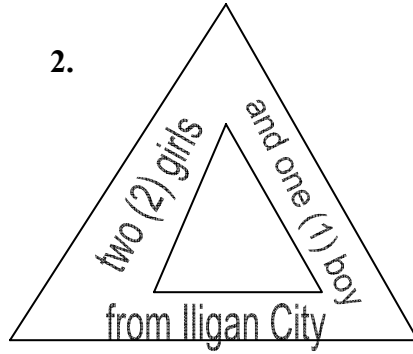
## EFFECTS IN MAN'S LIFE



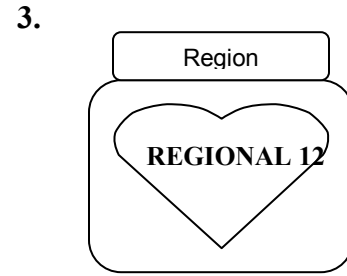
**Activity 2**



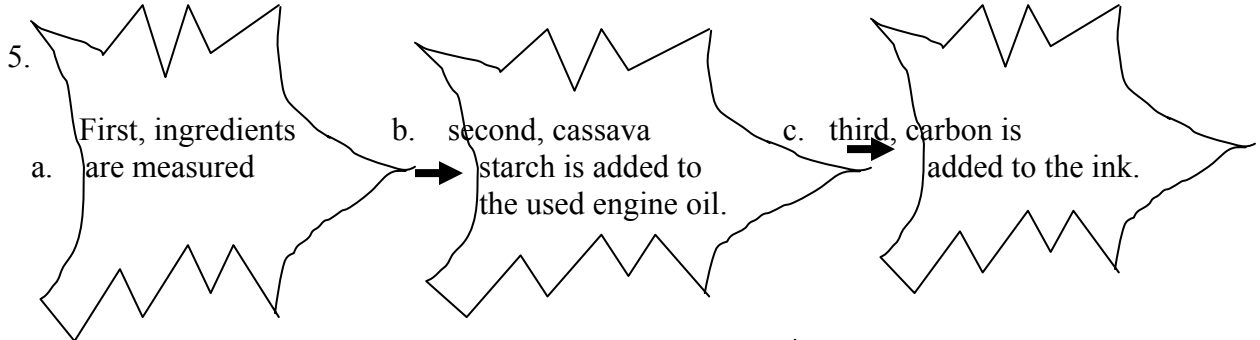
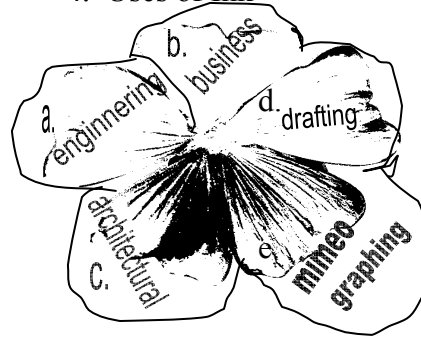
What?



Who?



4. Uses of Ink

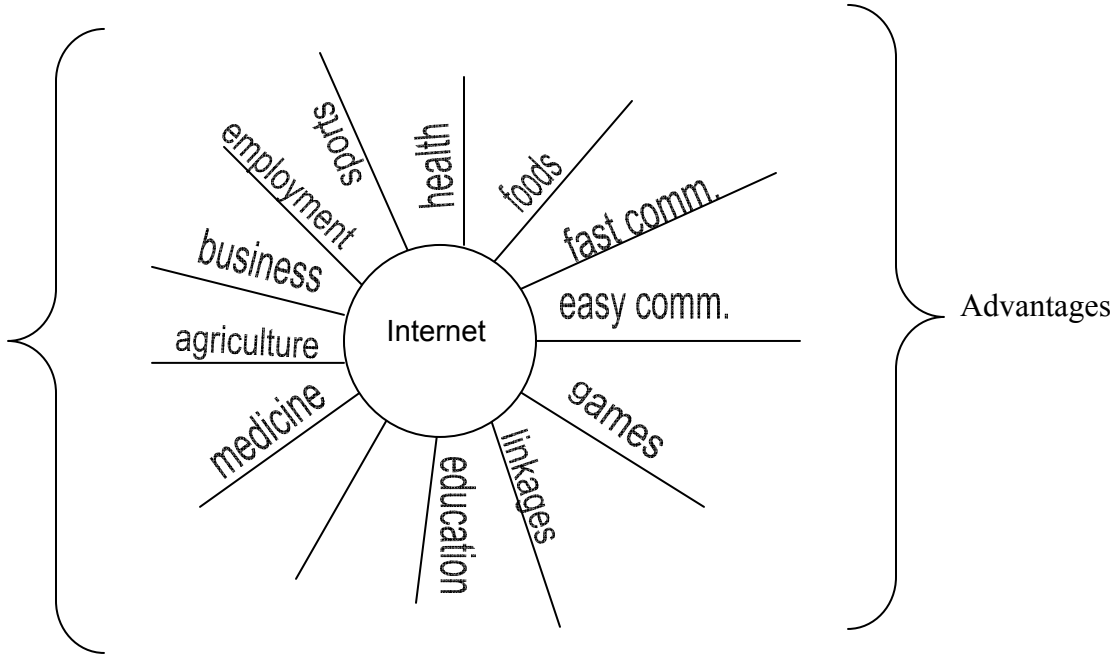


6.

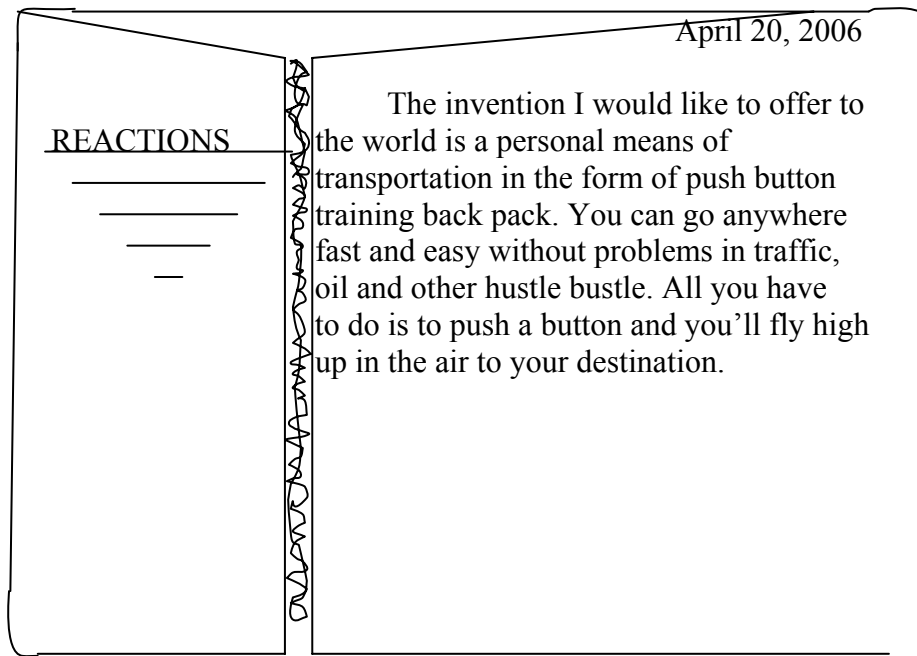
| BENEFITS                     |   |
|------------------------------|---|
| a. Pollution will be reduced | b. Highly toxic used engine will not be discarded into the sewers and end up in rivers waterways. |

**Activity 3** (Answer may vary)  
Sample answer

Internet is the one I like most. It helps the people to connect, to communicate and to enjoy life in the most advantageous way.



**Activity 4**

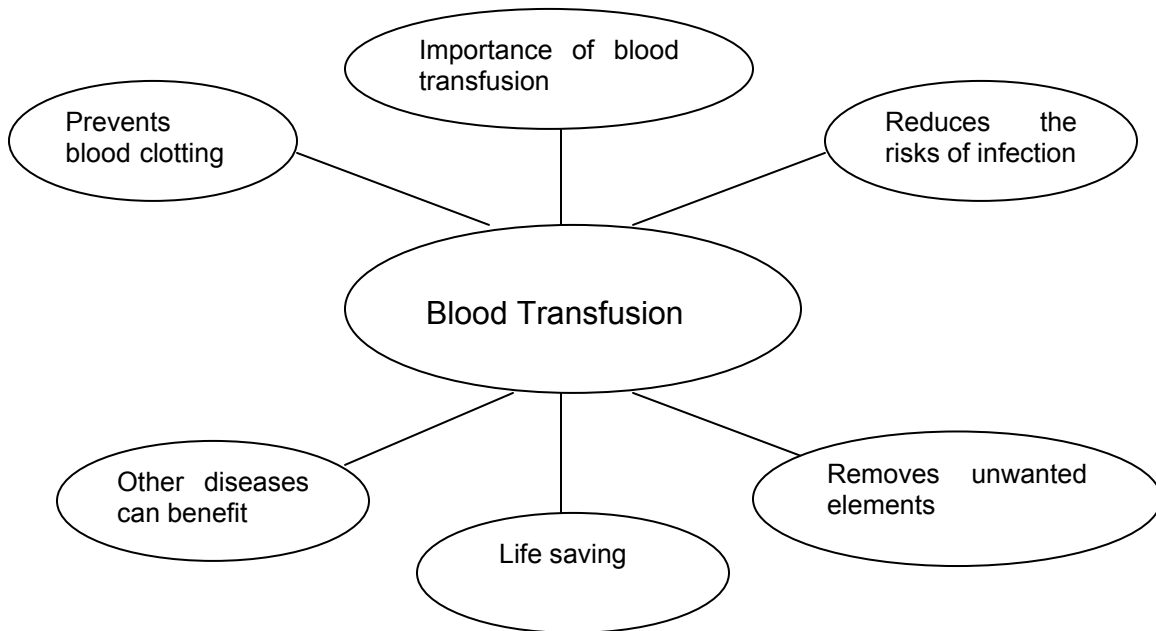


# Reading

## Activity 1 Vocabulary

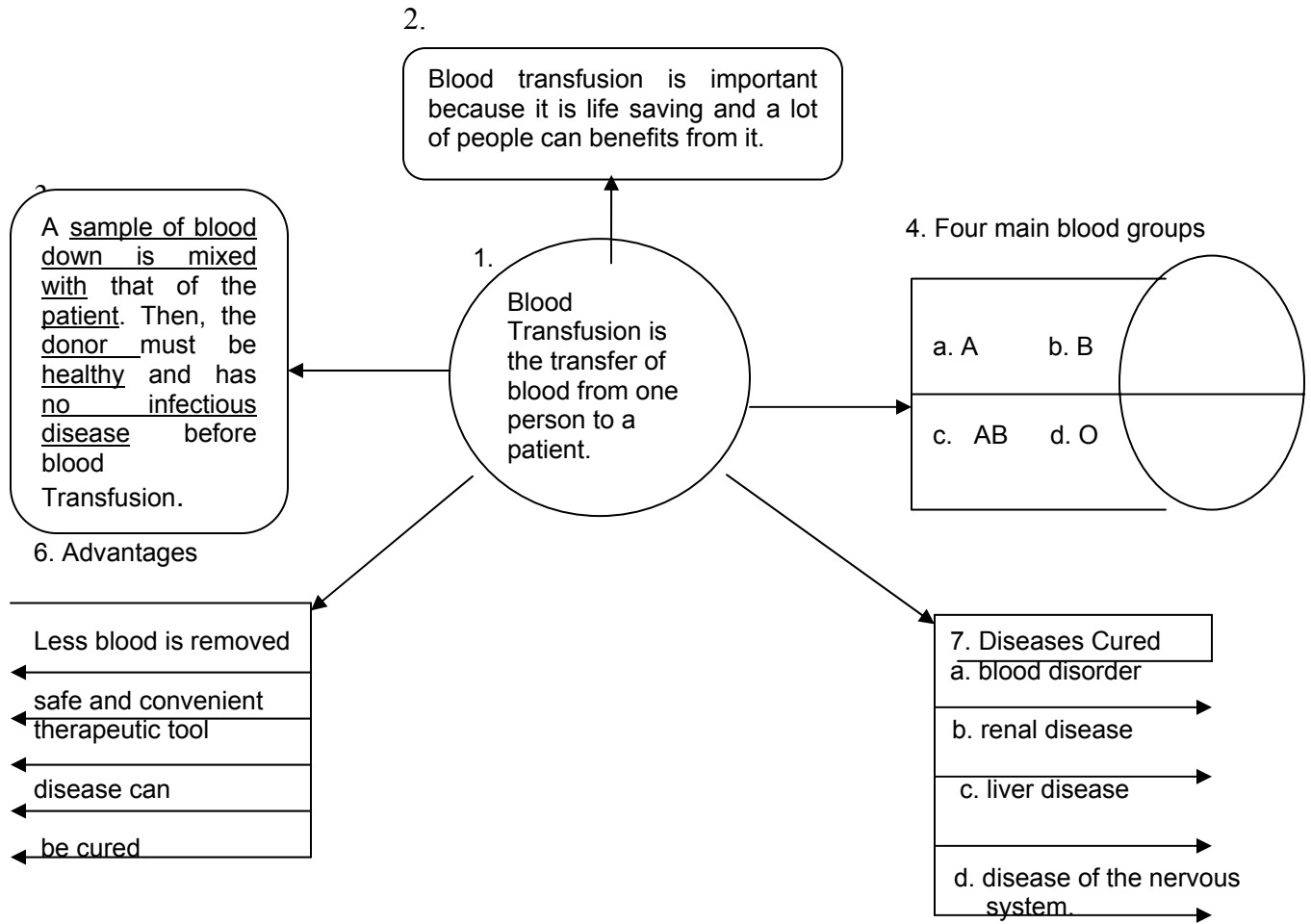
1. toxins
2. renal
3. benefit
4. centrifugal
5. immunological
6. aphaeresis or transfusion

## Activity 2





### Activity 3



### Activity 4

- 2
- 3
- 1

### Activity 5



They shouldn't be forbidden to have blood transfusion because it is life saving and very advantageous to men.

# Grammar



## Activity 1

1. Charity hopes she can donate blood someday.
2. Doctors wished they could save all lives.

## Activity 2 and 3

1. hopes is used
2. wish is used instead of hope.
3. can is used with hope to express something possible  
Could is used with wish to express something untrue or impossible.

## Activity 4

1. The management wishes the internet could stay forever.
2. With International roaming services, people hope they can enjoy life better.

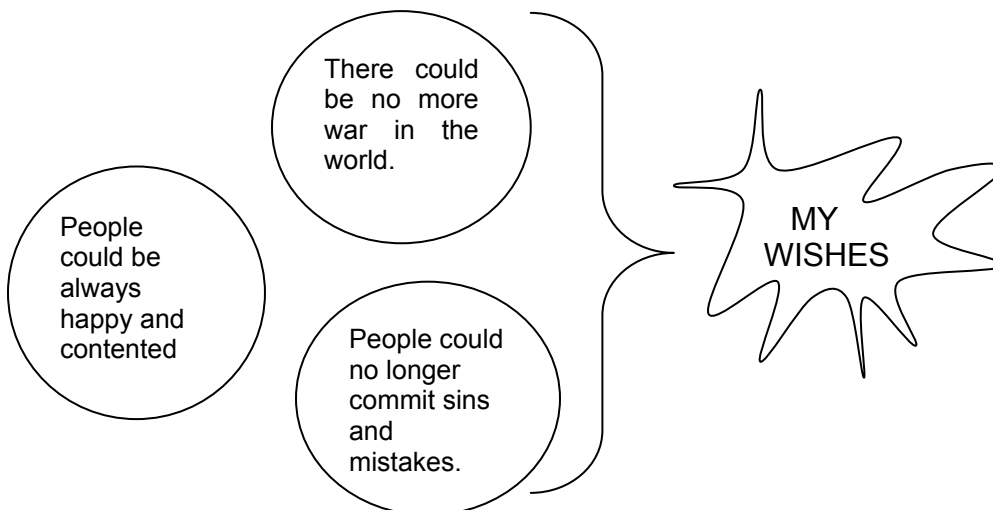
## Activity 5

1. They can reach out untapped customers.
2. They can depend on the Internet and not the traditional banking system.
3. They can offer an assurance for efficient services.
4. They can put up their planned personal e – system.
5. They can facilitate transaction with modernized banking activities.

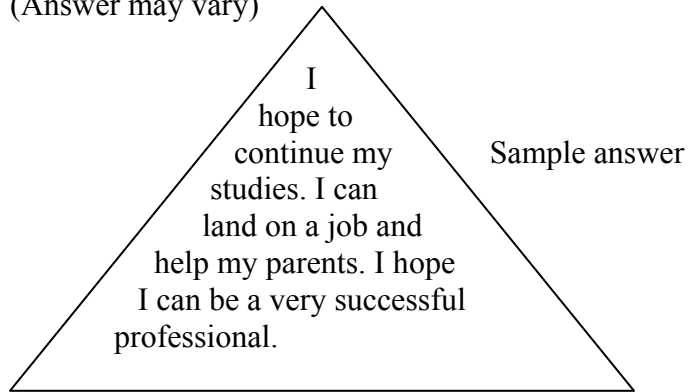
## Activity 6

1. Could allow
2. can run
3. could continue
4. could look
5. can have

## Activity 7



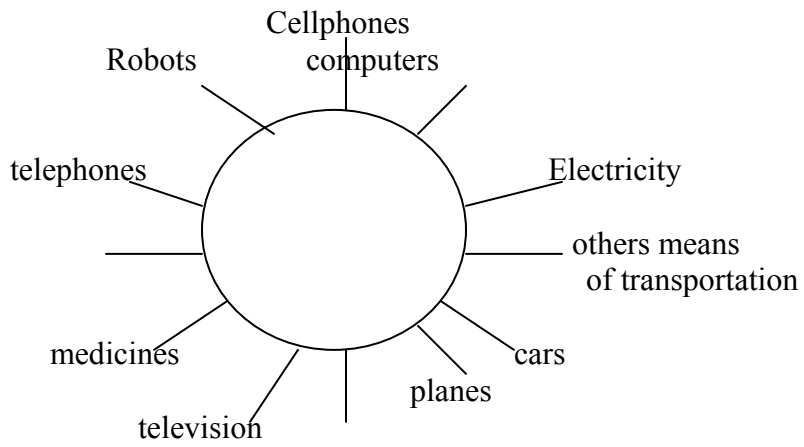
**Activity 8** (Answer may vary)



*Literature*



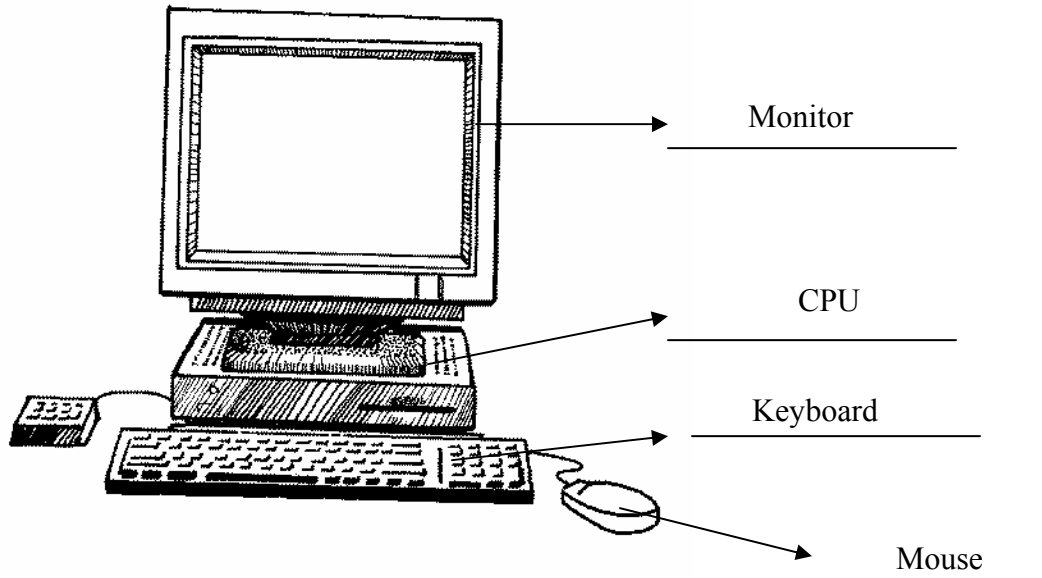
**Activity 1**



**Activity 2** Vocabulary

1. take over
2. take in
3. broke down

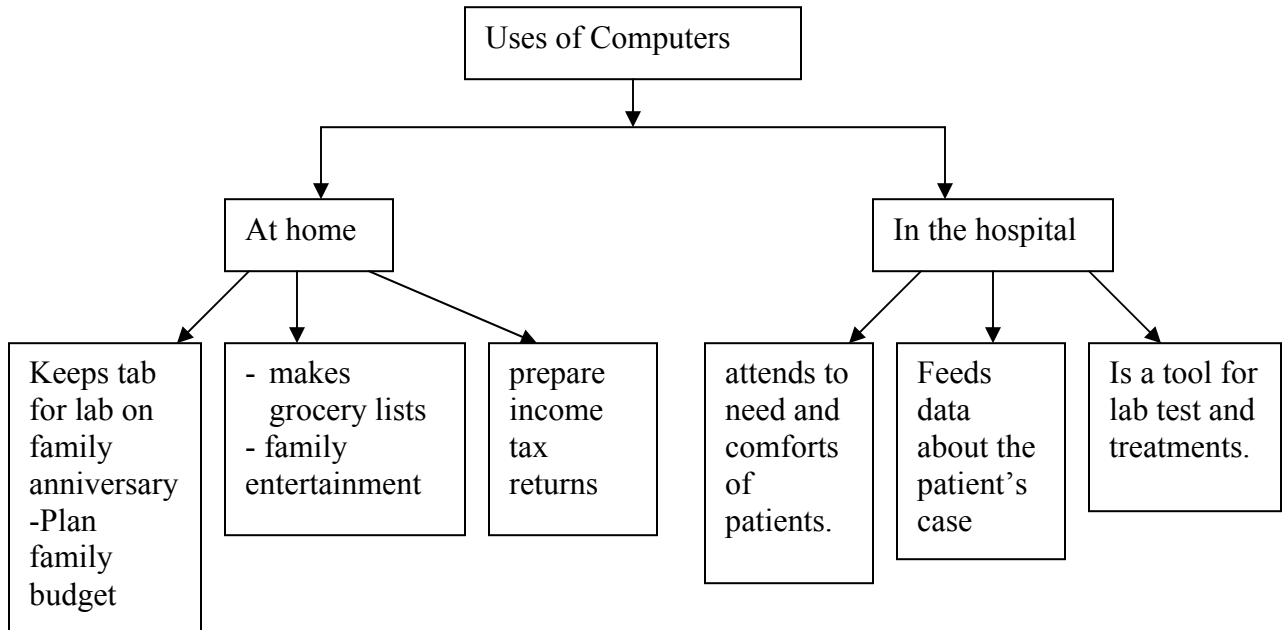
### Activity 3



### Activity 4

1. Uses of computer
  - a. runs factories, plants cities, teach children
  - b. forecasts the future
  - c. makes at grocery lists
  - d. simulates man's habits at home
  - e. attends to the needs and comforts of patients
  - f. helps mankind to understand and solve problems
2. Since computer could not work without man, it can be subject to commit mistakes. It can be used as a tool for destruction.

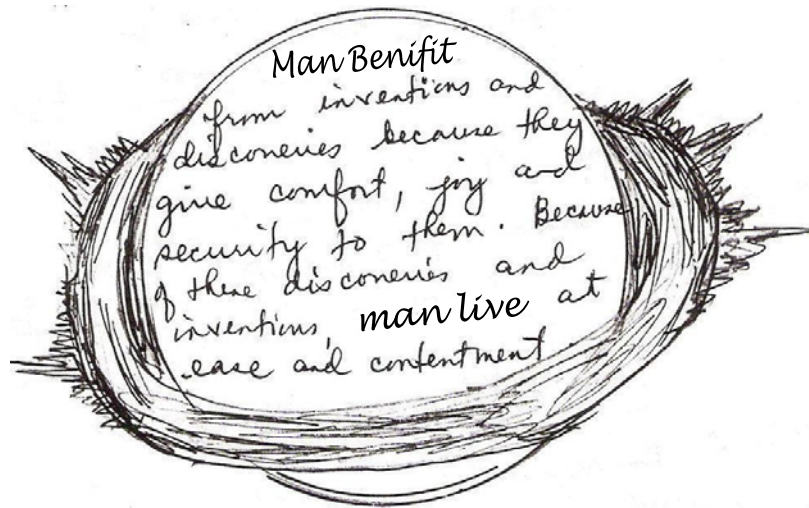
### Activity 5



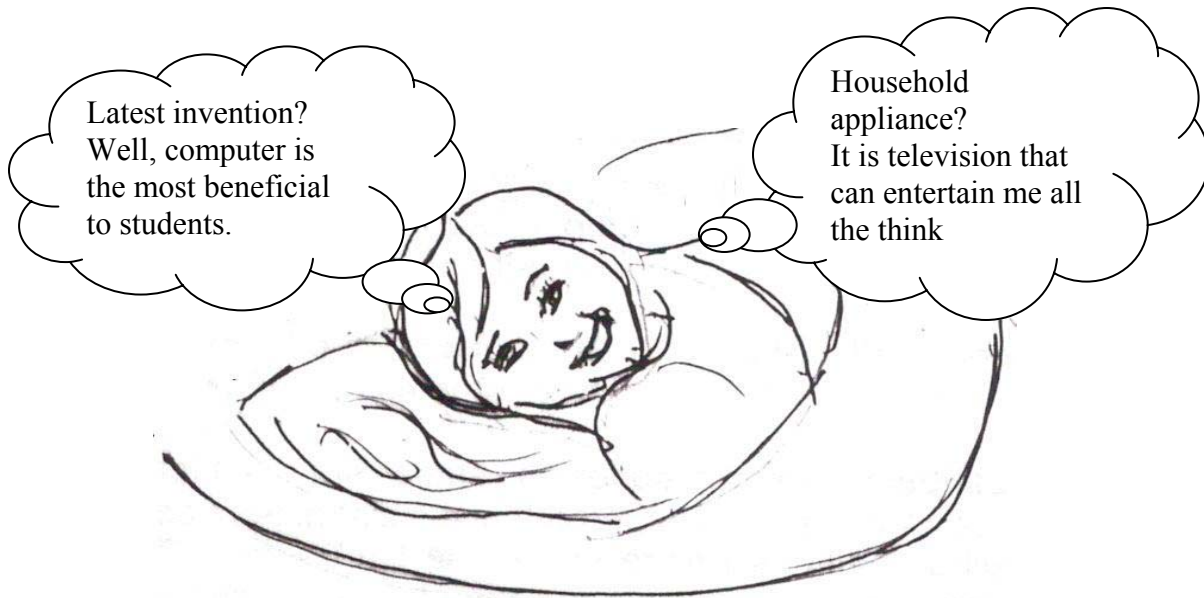
### Activity 6

1. It is a very powerful tool. Yes, it is an all-around tool.
2. Yes, man's problems are solved because of computers.
3. The danger in using a computer lies in the hands of man.
4. The author considers a computer as an important invention of man. He highlights its importance, function, and advantages.
5. Most probably, he hoped to encourage man to use a computer. Yes, he was able to achieve its purpose by classifying the truth about a computer.

### Activity 7



## Activity 8



## Writing

### Activity 1

1. Jerry Kenler, "What Do You Mean I'm not Literate", *World Executive Digest*, November, 1996, p. 64.
2. Ibid
3. Isidro D. Carino, "The Joy pain", *A Treasury of Stories*, (Quezon City: Carson Resources and Management Services, 1996), p. 134
4. Op. cit. Kenler p. 64
5. Renee Holleran, "Transparent Consideration for Trauma Patients", *Pre hospital Nursing*, (Missouri: Mosby Year Book, 1986) p. 262.
6. D. Organ and T. Bateman, *Organizational Behavior*, (Illinois: Business Publications, Inc. 1986).

### Activity 2

1. Robert Carnon, "Vincent in Focus" *Arts and Life*, (Quezon City: Tayag Press Inc., 2001), p. 52
2. Carlos Gabriel, "Shader and Meaning, *Life With Van Gogh*, (Paranaque City: Santos and Farrell Pub. House, Inc., 2000) pp. 114 – 115.
3. Francis Meyer, "Man With A Shoved", *Modern Art* (New York: New York Publications, 1996), p. 87

### Activity 3

1. title of the article is missing.
2. place of publication and page number are missing
3. place and year of publication are missing; number in superscript is also missing

# How Much Did You Learn



## Reading



1. B (education from the sky)
2. B (education)
3. D (television set)
4. A (2002)
5. C (school in the sky)
6. B (quality control in education)
7. C (directly affect and uplift poor and isolate people's lives)
8. D (lack of qualified teachers, lack of classroom, transportation for rural students who have to walk a mile to a school)

## Vocabulary



1. B (rays of light)
2. C (joining force)
3. E (something new)
4. A (observable)
5. D (service is follow)
6. F (machine that transmits and records data though satellite)

## Grammar



1. E → can point
2. F → can be filed
3. H → can be retrieved
4. A → can correct
5. C → could invent
6. D → could invent
7. D → could be sent
8. B → could be