**Computer Engineer Technical Group
Pre-Training Study Materials
JOCV/JICA Training Centers**

Materials herein pertain to the following fields:
-PC Instructor   -Systems Engineer

Jackie Newport, Jr.

本教材は自己学習用としてご活用ください。
各タスクに提出課題がありますが、提出する必要はありません。

Please use this material for self-study.
There are assignments for each task, but you do not need to submit them.

Special Note: **For future Japan Overseas Cooperation Volunteers (JOCV volunteers) or Japan International Cooperation Agency Volunteers (JICA volunteers), <u>DO NOT COPY</u> this webpage and give the copy to the training center instructors.**

Read the "What you need to do…" sections and follow the instructions. Give your work product to the Language Section Staff or to your instructors for them to check and return to you.

Welcome to the Computer Engineering Training Program. You are about to take part in an intensive training program the objective of which is to prepare you to become a self-sufficient and fully functional JOCV volunteer. The program will prepare you to perform your host country JOCV assignment to your fullest.

The Program is intensive. You will only have about 70 hours of class time to acquire the language and teaching skills to enable you to meet the above objective. To be a competent teacher, you will need to focus on the tasks you will be given and do your best to accomplish each of them.

How much you will learn and how well you will be able to perform will be up to you. Your instructors will guide you, they will give advice and they will help you in any way they can, but you must make the effort to learn and use what you have learned.

You will find tasks that you must do below. Each of them plays an important part in the Program. You do not have to do each of them perfectly, but you are expected to do each of them to the best of your ability.

A schedule for the completion of the tasks is below:

Task 1   Complete the questionnaire and send it to the training center by the postal service **before** you arrive at your training center.

Task 2   Study the vocabulary related to your assignment and fill-in the self-study sheets before you enter the Center. Give the results to the Language Section Staff **when you arrive** at the Center.

Task 3   Make the lesson plan following the instructions and give the results to the Language Section Staff **when you arrive** at the Center. Write the plan the same way you would for a lesson you will give in your host country.

Task 4   Read the orientation material **before** you arrive at the Center. The information in it will be important for you to understand. The information will serve as the basis for your training.

Task 5   Prepare the 3-minute speech **before** you arrive at the Center. It will be given in your first Program class. Be sure to check the relevant information and practice your speech.

Detailed information on each of the tasks follows. Good luck and, once again, welcome to the Computer Engineering Training Program.

Jackie Newport, Jr.

Task 1- Computer Engineer Trainee Questionnaire

Purpose: To give your instructor basic information about your background and expectations you have for your training.

What you need to do: Fill-in the questionnaire and send it to your training center before you arrive.

Computer Engineer Trainee Questionnaire

Please give complete and detailed answers in English to the following questions:

1) What is your name and what would you like to be called in your classes?

2) What was your pre-JOCV job? (If you were a student, what did you study?)

3) Have you ever taught before? If yes, please give details such as how long, what level and so on.

4) Have you ever been abroad? If yes, please give details such as where, how long, why you went, etc.

5) Have you ever spoken to foreigners before you entered JOCV? If yes, please give details.

6) What is your JOCV host country and what is your assignment there? Please give details.

7) What are any problems you think you will have doing your assignment? Please give details.

8) What do you want to learn in your technical class? Please explain your answer.

Task 2- Technical content and specific purpose language related to specific assignments

Purpose: In your host countries it is generally assumed that a computer engineer knows and can explain basic topics. Please review the general technical English and contents related to topics in your field of specialization.

What you need to do: Complete Part 1 and complete the part related to your JOCV host country assignment. Give the completed parts of the Language Section Staff or to your instructor **after** you arrive at the Center.

Part 1- General Computer Vocabulary

Following are questions to ensure that all JOCV candidates have the same basic general knowledge of computer related vocabulary in English. Answer each question to the best of your ability and go over the answers as a class.

1) What is a computer OS and how is it used?

2) What is a machine code and how is it different from an OS?

3) How is a command that a person can understand changed to machine code that a computer can understand?

4) What is the difference between a desktop computer, a laptop computer, a tablet, and a Chromebook?

5) What are the names of the general parts of a computer and what do they do?

6) What is the difference between a GUI and a command line?

7) What does FTP mean?

8) What is a folder?

9) What is a default setting?

10) What does configure mean?

11) What does BIOS mean?

12) What does compatibility mean?

13) What is utility software?

14) What does plug and play mean?

15) What does application software mean?

16) What is the difference between software and hardware?

17) What does computer protocol mean?

18) What does archive mean?

19) What is the difference between to import data and to download data?

20) What is the difference between update and upgrade?

System	Devices	Phone	Network & Internet	Personalization
Display, sound, notifications, power	Bluetooth, printers, mouse	Link your Android, iPhone	Wi-Fi, airplane mode, VPN	Background, lock screen, colors
Apps	Accounts	Time & Language	Gaming	Ease of Access
Uninstall, defaults, optional features	Your accounts, email, sync, work, family	Speech, region, date	Xbox Game Bar, captures, Game Mode	Narrator, magnifier, high contrast
Search	Privacy	Update & Security		
Find my files, permissions	Location, camera, microphone	Windows Update, recovery, backup		

21) What part of Windows 10 does the above set of icons come from?

22) What icon will you click on to change settings for "Power and Sleep?" Why might you want to change the default setting?

23) What icon will you click on to find what application software is being used on your computer? Why might you want to do this?


24) What icon will you click on to protect the privacy of what you are doing/searching on your computer?

Part 2- Personal Computer Instructor

Following are questions to ensure that JOCV PC instructors have general knowledge of how to teach computer related information with regards to productivity software in English. Answer each question to the best of your ability and go over the answers as a class. The material covers Windows Word, Windows Excel, and Windows PowerPoint, the most widely used productivity software. The version used is Microsoft Office 365 because it is likely to common version used in JOCV host country situations in the future. An alternative freeware version is called "OpenOffice." It is very similar to Microsoft Office software applications.

Word Processing Software- Microsoft Word

Look at the view screen for Microsoft Word 365 and answer the questions that follow:
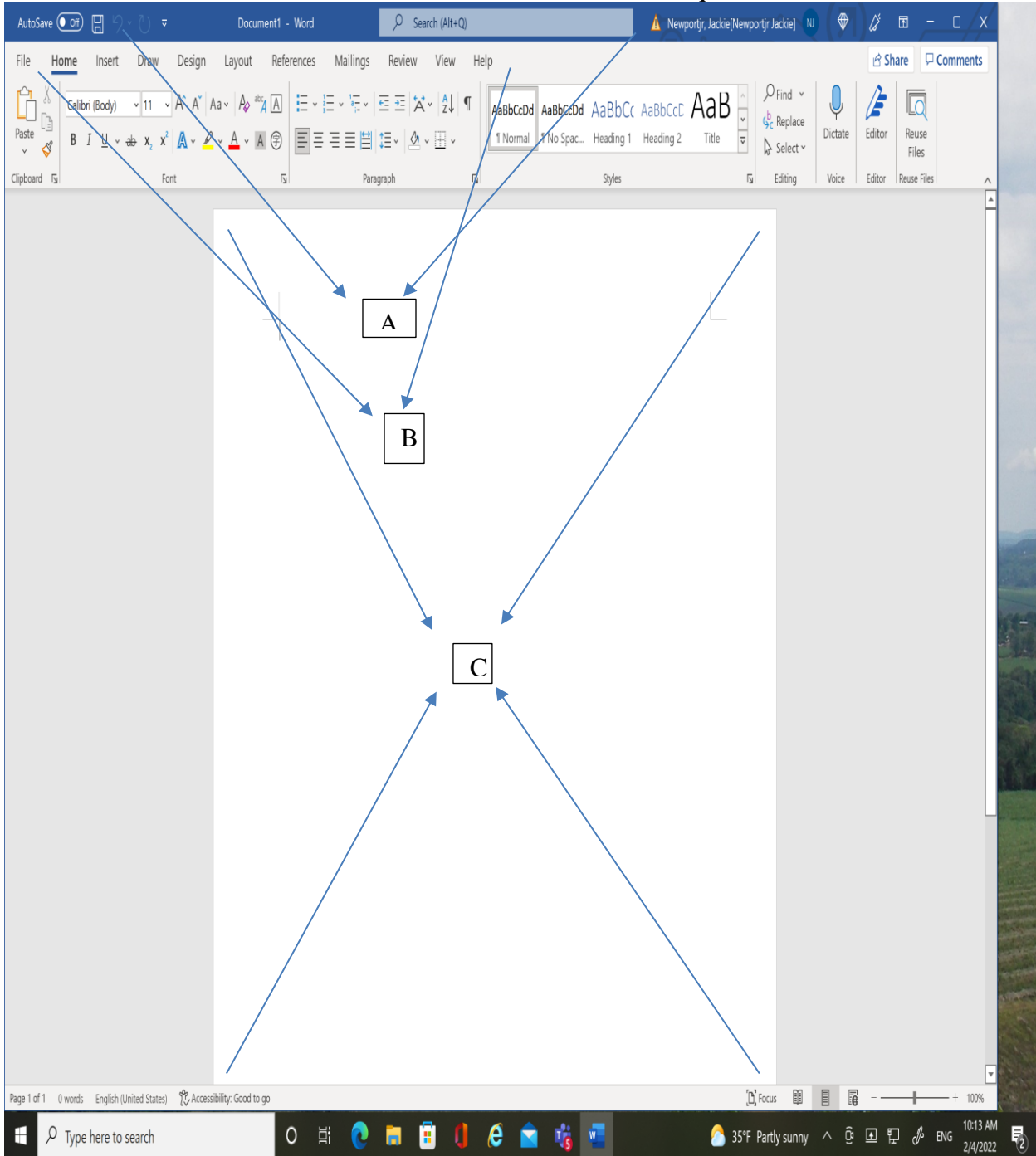
1) What is "A" called? What is it used for?

2) What is "B" called? What is it used for?

3) What is "C" called? What is it used for?

4) How do you start Microsoft Word?

5) I have started to insert text, but I made a typing mistake. What should I do?

6) I don't like the style or size of the text I am using. What should I do?

7) I don't like the color of the text. How can I change it?

8) I want to insert some shapes into my Microsoft Word document. How can I do it?

9) I want to make my document look really good. I want to insert a picture in it. How can I do it?

10) I have finished making my document. I want to save it. How can I do it?

11) My English is not so good. Can Microsoft Word check what I wrote? If yes, how can I do it?

12) I want to open a document that I already wrote. How can I do it using Word?

13) Can I add an audio or visual file to my Microsoft Word document? If yes, how can I do it?

Spreadsheet Software- Microsoft Excel

Look at the view screen for Microsoft Excel 365 and answer the questions that follow:
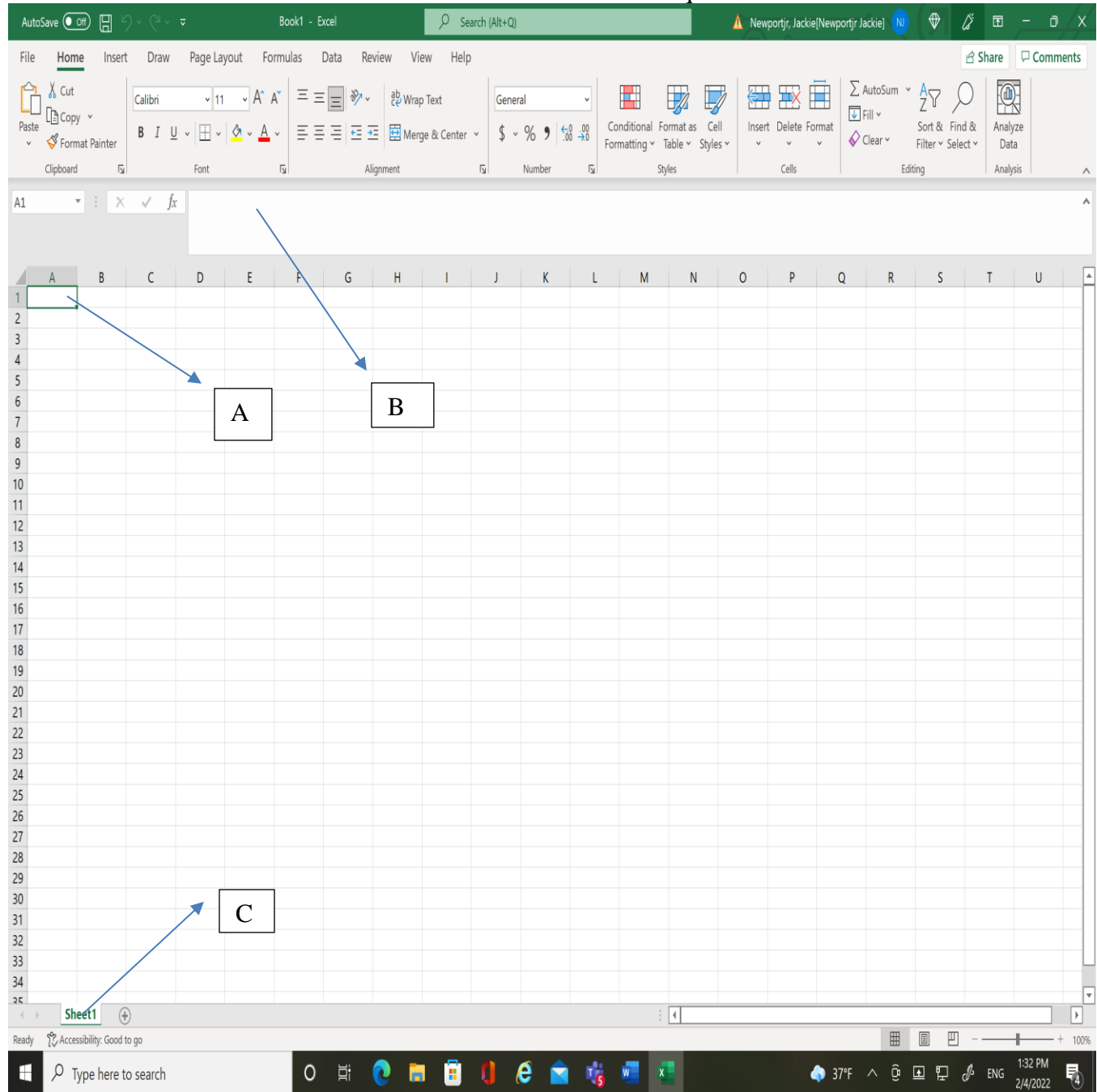
1) What is A called? What is it used for?

2) What is B called? What is it used for?

3) What is C called? What is it used for?

4) What is a spreadsheet and how is it different from a document?

5) What is the difference between a "cell" and an "active cell" in Microsoft Excel?

6) How do you tell the location (address) of a Microsoft Excel cell?

7) What is the difference between a Microsoft Excel column and a row?

8) When I type data into a Microsoft Excel cell, it is sometimes too long so I cannot see it all. What can I do?

9) When I type data into a cell, Microsoft Excel tries to finish my typing into the cell, but I do not want the Excel data it is trying to input. Why is it trying to do this?

10) What is "AutoFill" and how can I use it?

11) When I use Microsoft Excel, I find that it always aligns text to the left side of the column and numbers to the right side. How can I change this?

12) How can I add a column or a row to my Microsoft Excel spreadsheet?

13) How can I add a worksheet to my Microsoft Excel workbook?

Microsoft PowerPoint

Look at the view screen for a blank Microsoft PowerPoint 365 slide and answer the questions that follow:
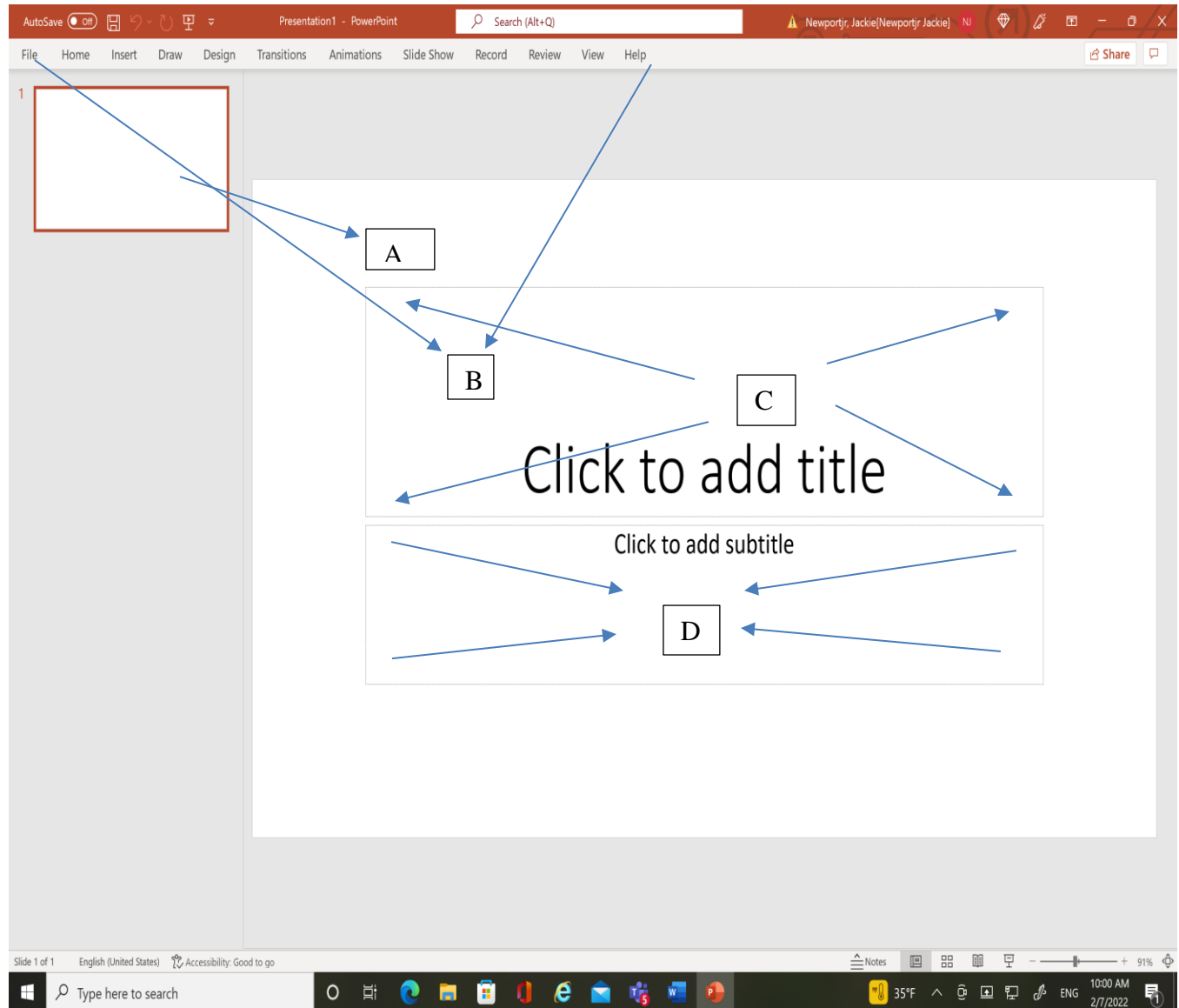
1) What is "A" called? What is it used for?

2) What is "B" called? What is it used for?

3) What is "C" called? How is it different from "D?

4) How can I create a Microsoft PowerPoint slide?

5) How can I add text to my Microsoft PowerPoint slide?

6) How can I edit text I already put into the slide?

7)) I want to add a new slide to my presentation. How can I do it?

8) I don't like the arrangement of my slides. How can I change it?

9) In the Ribbon, what does the "Transitions" tab mean?

10) How can I use the Transitions tab?

11) In the Ribbon, what does the "Slide Show" tab mean?

12) How can I use the Slide Show tab?

13) Can I insert audio/visual media into my presentation?

Part 3- System Engineer

Following are questions to ensure that JOCV system engineers have general knowledge of how to teach computer related information with regards to productivity software in English. Answer each question to the best of your ability and go over the answers as a class.

1) What is the difference between a system engineer and a network engineer?

2) What is the difference between a LAN and a WAN?

3) What is a client computer?

4) What is a server?

5) What is the difference between a router and a hub?

6) Name the different kinds of ethernet cables and their capabilities. Which is the best to use?

7) What is the difference between shielded and non-shielded ethernet cables?

8) What does "future proof" mean?

9) What is an AUP?

10) What is the easiest way to make sure your computer is secure?

11) What is a firewall?

12) What is firmware?

13) What is Wi-Fi?

14) What is employee monitoring software?

15) What is a VPN and how is it used?

Systems Engineers- A Special Project

As a system engineer, you will be expected to know how to design, manage and maintain a computer network. To help you practice, the following exercise was created.

Your objective-

To create a fully integrated plan that an organization can use for its information technology (IT) infrastructure.

The situation-

The organization has two buildings and fifty-four workers. The buildings are one hundred meters apart. Electricity is not always stable in the country. Sometimes there are blackouts. There is a new Internet line, and it can provide 100 Mbps of stable connections. Cellular service is poor due to weather related problems (floods damaging cell towers, people stealing antennas, etc.).

The organization is on a separate campus with two main buildings. The first building has one large room with twenty-two workstations and two more rooms- one is a video-conference room, and the other is a meeting room. All of the rooms only have a telephone land line connecting them to each other and to the outside.

The second building has three floors with six rooms on each floor. Each room has a workstation but, like the other building, there is only a telephone landline connecting each of them and to the outside.

Sometimes visitors come to the organization. They have their own laptops, and they want to be able to contact their home offices/organizations, but they cannot do it now. Your plan also needs to think about them.

Your task-

The organization wants to become digital. It wants to connect to the Internet and be able to do online meetings. It wants to allow visitors to make contact with the outside via their PCs. It wants to change all of its paper-type work into digital form.

You are to make a plan for everything the organization will need to reach its objective of becoming digital. The plan will include the necessary hardware and software, network design, training of personnel and long-term care (network administration). Be as clear and specific as possible. For example, what kind of computers should workers use? Tell the name, model, and specifications. Tell what kinds of software will be best and how it can be used.

Also tell why you think your choices are the best. Do the same for everything.

Do not worry about the cost. The organization will get a grant to cover it, but remember it is a JOCV host country organization so the cost must not be sky-high.

Write your plans and submit to your instructor. Then make a short presentation (around 15 minutes) explaining what you have decided. Be able to explain and to defend your ideas.

Good luck!

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Task 3- Make a presentation plan

Purpose: You will have a very limited amount of time to not only improve your English language skills, but also learn and use appropriate vocabulary and skills. Your sample presentation plan will help your technical class instructor prepare appropriate activities to directly help you remedy any mistakes or problems you may have.

What you need to do: Look at your assignment data sheet. You can use one of your future assignment tasks to make a model lesson. You can use the following lesson plan made by a trainee as an example. You can then use the template that follows to help you to organize your plan. Don't worry if you can't do it well. Just try to do your best! Give the completed plan to your instructor **after** you arrive at the Center.

Lesson Plan Number 6

Presenter Name: Koichiro Hara   Topic: Word (Advanced)

Lesson Target Time: 50min.   Lesson Date: Oct 15

Lesson Audience Level: Elementary school teachers

Lesson Objectives:

1. Learn how to insert shapes
2. Learn how to insert screenshots
3. Learn how to insert online videos

Time Used	Visual Aid/ Whiteboard	Lesson Script
0:00	(I will share my computer screen throughout the class. I will also prepare a Word file to work on in the class for students.) Today's Goals 1. Learn how to insert shapes 2. Learn how to insert screenshots 3. Learn how to insert online videos	Introduction Before we start, you are all schoolteachers. You finished my Excel and Word classes so far, and it is time for you to do some more advanced topics. Good morning, students. Now, let's do an exercise to check our knowledge. Use your computers and do the following: I will show you a Word document filled with text, so please make the same document. Please make sure you copy & paste your table from Excel.

Time Used	Visual aid/ Whiteboard	Lesson Script
0:05		I'll give you only 2 minutes. Please start…Time is up! Q: Mr. Newport, please show us your document! Do you have any questions about the last lesson? ….Let's continue .. So, today's goals are… Please read No.1~3 for us! Please open the Word file I sent you already.

Time Used	Visual aid/ Whiteboard	Lesson Script
		<u>Insert Shapes</u> - **Insert Shapes** Now, I'm going to show you how to insert shapes into a Word document. As always, follow me on your PC. 1. Click in the document where you want to insert a shape. 2. Click the Insert tab. 3. Click the Shapes button. 4. Select the shape that you want to insert and click Insert. (Rectangle) That's all! Could you do it? Come to my PC and do it. (Circle) Let's continue.
0:15	(Work on the already given file)	<u>Exercise</u> Now, let's do an exercise to check our knowledge. Use your computers and do the following: I will show you a Word document filled with text, so please insert a shape into the document. Please use the techniques that we just studied. I'll give you only 3 minutes. Please start…Time is up!

Q: Mr. Newport, please show us your document!

Time Used	Visual aid/ Whiteboard	Lesson Script
0:20		Insert Screenshot - **Insert Screenshot** Now, we are going to insert screenshot into a Word document. We can add a screenshot directly from Word into your document. It is useful when you want to create steps or procedures of doing something on a PC. Now, I'm going to insert a screenshot into a Word document. As always, follow me on your PC. 1. Click in the document where you want to insert a shape. 2. Click the Insert tab. 3. Click the Screenshot button. 4. Select Screen Clipping. 5. Select the area that you want to clip. That's all! Could you do it? Come to my PC and do it. Let's continue.

Time Used	Visual aid/ Whiteboard	Lesson Script
00:30	(Work on the already given file)	<u>Exercise</u> Now, let's do an exercise to check our knowledge. Use your computers and do the following: I will show you a Word document filled with text so please insert a screenshot into the document. Please use the techniques that we just studied. I'll give you only 3 minutes. Please start…Time is up! Q: Mr. Newport, please show us your document!
0:35		<u>Insert online videos</u> - **Insert online videos** Now, I'm going to show you how to insert online videos into a Word document. You can insert an online video into your document, from YouTube for example. By following this procedure, you can make the thumbnail appear on your document which is very easy to see. A thumbnail is a kind of short video memo of a video file that you want people to see. When you click on the thumbnail, the video file for it opens for the user to see the video content. As always, follow me on your PC.

1. Copy the link of the video that you want to insert to your document.
2. Click in the document where you want to insert an online video.
3. Click the Insert tab.
4. Click the Online Videos button.
5. Paste the link for your video and press Insert.

Now, this makes the thumbnail of the video appear on your document and you can play it on the document.

That's all! Could you do it? Come to my PC and do it.
Let's continue.

Time Used	Visual aid/ Whiteboard	Lesson Script
0:40	(Work on the already given file)	Exercise Now, let's do an exercise to check your knowledge. Use your computers and do the following: I will show you a Word document filled with text so please insert a screenshot into the document. Please use the techniques that we just studied. I'll give you only 3 minutes. Please start…Time is up! Q: Mr. Newport, please show us your document!

Time Used	Visual aid/ Whiteboard	Lesson Script
0:45		

<div>

Wrap up

We have only 5 minutes left, so let's warp up today's lesson.

Q: Mr. Newport, how do you insert a shape? Please show us!
That is correct! (If correct)/ Are you sure?
Can you help us Mr. Ota? (If Newport's answer is incorrect)

Q: Mr. Ota, how do you make and insert a screenshot? Please show us!
That is correct! (If correct)/ Are you sure?
Can you help us Mr. Ota? (If Newport's answer is incorrect)

Q: Mr. Newport, how do you insert an online video into your document? Please show us!
That is correct! (If correct)/ Are you sure?
Can you help us Mr. Ota? (If Newport's answer is incorrect)

That is all for today's lesson. Do you have any questions? See you in my next class.

</div>

0:50

Presentation Plan

Presenter Name: Topic:
Presentation Target Time: Presentation Date:
Presentation Audience Level:

Presentation Objectives:
1.
2.
3.
4.
5.

Time Used	Visual Aid/ PowerPoint	Presentation Script

Time Used	Visual aid/ PowerPoint	Presentation Script

Task 4-Read the orientation materials

Purpose: The following orientation materials contain the basic information of what is expected of you as a trainee, what you can expect from your instructors, how you will be judged during your training and advice that will help you to survive and improve. Understanding this information will help to avoid any misunderstandings about your training.

What you need to do: You need to read the information **before** you arrive at the training center. Your instructor will give you details in your first technical English class.

<u>Information about your technical classes</u>

Your training center instructor will give you an orientation about your technical classes in your first formal lesson. Below are some of the topics your instructor will go over with you:

1) Who you are and what is expected from you
2) What is expected from your instructors
3) Choosing topics for your training
4) How you will be judged
5) Advice for if you have trouble
6) Helpful ideas for you to be successful in your training

The purpose for your orientation is to help you to understand what your English language technical training will demand of you. Details of the above topics will be made clear so that there will not be any misunderstanding about your technical class training.

<u>Feel free to ask your instructor if you have any questions about any of the above training topics.</u>

Task 5
Your First Assignment
Part 1
You are to give a minimum 3-minute speech in your first technical **in English** about your host country, your future workplace and what you will do there. You will need to gather as much information about it between now and your speech date (your JICA Data Sheet is a starting point).

The purpose of this speech is to get you to think, act and speak more comfortably in English and to help you understand your future role as a computer engineer. You need to prepare for it as much as possible.

After you have finished making your speech, each of your classmates will ask you one question in connection to what you have said. Those questions will be good English practice for them to ask and for you to answer. You might also guess what questions people will ask you so that you can prepare and practice answering them before your speech.

Part 2
In your second technical class, you must give the presentation you made for Task 3 of this webpage to your technical class in English. Your instructor and classmates will watch and give you feedback to help you improve your performance.

Appendix 1- Sample of "Can-Do List" in English

Can-do items table for trainee self-evaluation

Trainee's Name:_____   Job: __ 22 _____   Date: _____

T. Class Teacher: _____   _

Tasks
Can
1. Follow simple orientation instructions in preparation for job-related activities
2. Make simple questions to get basic facts or more explanations
3. Show someone the necessary actions for completing a job task using very simple language
4. Say what is happening, what will happen, or what has happened while demonstrating a skill
5. Describe how a mechanical, natural, or social system works in simple sequenced statements
6. Give detailed instructions on how to do a job, or on how to use a principle or formula to solve a problem
7. Give warnings and explain what will happen and why it will happen if we do or don't do something
8. Change the technical language of a theory, equation, or concept into more simple language
9. State professional titles and explain personnel roles in profession or technical field
10. Name common tools, materials, parts of equipment, etc. in job area and state their uses
11. Read or listen to and understand books, articles, or lectures about the technical subject
12. Name basic topics, concepts, equations, symbols, etc. in technical subject area
13. Check audience's knowledge and skills level and decide what they need to learn
14. Make the objectives for a lesson, workshop, community projects, etc. to teach knowledge or skills
15. Choose the necessary information and activities for teaching a lesson
16. Make the questions or test tasks to check how much my audience have learned
17. Prepare and give full lessons, workshops, or presentations by myself
18. Make original plan and choose contents for a full technical information and skills course
19. Write or present a project proposal or report
20. Make an audience change their attitudes or habits or make them agree to cooperate

Presentation Evaluation Form

Speaker: _____ **Subject:** _____ **Date:** _____

Introduction	Poor		Minimum		Good
Ability to catch the audience's attention	____		_____		_____

Lesson Body	P	L	M	G	E
Main points are clear	—	—	—	—	—
Key vocabulary words written	—	—	—	—	—
Explanation of main points	—	—	—	—	—
Check for audience comprehension	—	—	—	—	—
Use of examples	—	—	—	—	—
Audience participation	—	—	—	—	—
Organization of lesson	—	—	—	—	—

Presentation of information	P	L	M	G	E
Use of general vocabulary	—	—	—	—	—
Ability to answer audience questions	—	—	—	—	—
Time management	—	—	—	—	—
Preparation for this presentation	—	—	—	—	—
Eye contact with audience	—	—	—	—	—
Self-confidence of speaker	—	—	—	—	—

Conclusion	Poor		Minimum		Good
Summary or conclusion was made	____		_____		_____
Check of audience comprehension	____		_____		_____

> **P = Poor performance**   **L = Lacking performance**   **M = Minimum performance**
> **G = Good performance**   **E = Excellent performance**

Your feelings about today's presentation (Circle one)

Excellent   Good   Fair   Difficult   Poor

Your suggestions to improve the presentation (Write them below)

Self- Evaluation Form
Speaker: _____ Subject: _____ Date: _____

<u>**A) How did you feel about your presentation? (Circle One):**</u>

   Very good   Good   Fair   Not too bad   Bad

<u>**B) What were the good points of the presentation? Please list them below:**</u>

<u>**C) What were the bad points of the presentation? Please list them below:**</u>

<u>**D) What changes would you make in the presentation to make it better? Please list them below:**</u>

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