

**EVALUATING
ACADEMIC READINESS
FOR APPRENTICESHIP TRAINING**
Revised for
ACCESS TO APPRENTICESHIP

**COMMUNICATIONS SKILLS
DETAIL EXTRACTION**

**AN ACADEMIC SKILLS MANUAL
for
The Hairstylist Trade**

*Workplace Support Services Branch
Ontario Ministry of Training, Colleges and Universities*

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In preparing these Academic Skills Manuals we have used passages, diagrams and questions similar to those an apprentice might find in a text, guide or trade manual.

Trade related material is not intended to instruct you in your trade. It is used only to demonstrate how understanding an academic skill will help you find and use the information you need.

COMMUNICATIONS SKILLS

DETAIL EXTRACTION

*An academic skill required for the study of the
Hairstylist Trade*

INTRODUCTION

Reading for details is similar to shopping through aisles of items and then finding and taking something you need. **Detail extraction** refers to finding information you need and then carefully reading it to pull out and use the specific points you need.

In your trade, you extract details from descriptions of procedures, product information, on line databases, and diagrams. You also extract details when you make notes from texts and class material, and when you study for tests.

Detail extraction is the skill you need when you scan specification tables to determine handling protocols for chemicals, look for specifications for products, and to read manuals for precise information about the expected operation of a piece of equipment. When you select the right details from your trade materials and textbooks, you can use the information to get the results you want.

In this unit, we will look at the following methods to successfully extract details from technical reading material:

- ◆ Know your purpose.
- ◆ Use a method to find details.
- ◆ Understand the nature of details.
- ◆ Build on your experience.

PART I

KNOW YOUR PURPOSE

Details

Details are the small parts of something. They are the individual points, parts, components, or the bits. When you find a detail by itself, you may not recognize what it's used for or whether it's important. When you see a detail in its correct place – as part of a whole – you are more likely to recognize its use and its importance. When details are combined, each contributes to the whole idea, process or principle.

Extraction

Extraction means pulling something out. A geologist extracts gold from rock, a dentist extracts a tooth from your jaw. Extraction may be difficult and it may take some effort. You have a good reason for making this effort.

Your purpose

When you understand *why* you are reading, you can focus on the parts of the text that provide the information you need. When you know what you are looking for, you recognize the information when you find it. Then you can select the parts that answer “what should I do” and “what should I know.” This is detail extraction. If you know what you *don't* need, you can skim through unnecessary details and get to the purpose for reading.

Think about your reasons for reading before you begin:

- ◆ What am I looking for?
- ◆ What have I been asked to do?
- ◆ What am I expected to know ?

Getting all the facts

The skill of extracting details requires you to identify your purpose and, then, *carefully read to extract the details*.

Often you need all the details provided, especially when you are told to follow a procedure. If you skim through them, you will miss something essential. When you are *directed* what to do, you will need to extract all the details.

Examples:

Follow steps 1 through 4 for correct wrapping technique,

Read these directions before you start preparation.

Statements like these tell you where to find the details and what you need the details for. They give you a purpose for finding and using details. You will need to find and use the details they point you to, especially if you need to learn correct wrapping procedures or to understand how to do a job.

Statements that send you for information provide you with a purpose for reading. Among other things, they might tell you:

- to get help with a procedure,
- to compare details, or
- to make the correct adjustments (in products, measurements, etc.).

You may have two or three purposes for reading selected material, such as to memorize a new procedure or to learn more about fabricating or to take an exam. An added, but common, purpose for reading technical material is *to answer questions* to show that you have grasped the information, or details, in the material you have read

Passage 1 below discusses the shaping of wigs. Think about your purpose in reading this. It may be to do any or all of the following:

- understand a material or product,
- accurately follow directions,
- identify parts on a diagram,
- understand the sequence of events, or
- answer questions.

Read Passage 1 and answer the questions that follow. Answers are at the end of this manual.

Passage 1

Shaping Human Hair Wigs

Wigs can be shaped in the same manner as natural hair on the head. However, remember that a wig holds twice as much hair as a human head, and therefore must be thinned and tapered properly. See note.

Cut as close to the wig foundation as possible, without damaging the cap. Thin hair close to the cap in order to remove additional bulk. This will also make sure you have not left hair spurs that will stick out when you style the wig later. Take special care that knots on hand-knotted wigs remain tight. As well, make sure not to cut any of the wefts or sewing threads on the wefted wig. Proceed cautiously.

It can be more convenient to shape wigs on a canvas block. However, it is a good idea to cut the wig while it is on the client's head in order to suit the client's natural hair and facial features (see figure 7-6). Once you have determined the proper length and style, you can then move the wig back to the block. Make sure it is firmly secured in order to avoid slippage during the rest of the process. Also, make sure it is set at the correct hairline distance, and continue cutting the remaining hair evenly. Continue the shaping process section by section, until the entire wig is shaped.

The note and diagram are omitted from this passage.

Questions:

1. Which of the following is an indication that the hair was **not** thinned close to the cap?
 - a) cut wefts or sewing threads
 - b) lack of bulk
 - c) cap damage
 - d) loose hair spurs
2. Cutting the wig on the client's head will ensure it is the proper length prior to styling.

T F
3. Caution is necessary when shaping wigs in order to avoid causing unnecessary damage.

T F
4. A block is the best surface on which to shape a human hair wig.

T F

What I want . . .

As you read, you will often find that your purpose changes or expands in some way. Think about the passage above.

As you read the passage, you may have stuck to your original purpose, whether it was to follow directions accurately or to understand more about the shaping of human hair wigs. But, you may have wanted to see the diagrams and to find others so you understand more about styling wigs. You might also have wanted to find out what the differences between synthetic and human hair are or how you can tell one from another, and so on. These new purposes will send you to another text, manual or an expert to find the details you want.

Your expanded purpose leads you to find more details. *Searching to find those details and reading them carefully is important to the understanding of your trade.*

Your purpose tells you *why* you are looking for details. You will use the details in an appropriate way based on your purpose, whether you memorize them, record them or act on them.

Purposes for reading

For *detail extraction*, you read to locate facts, data or information for *any of the purposes* below. You will find other reasons of your own to add to this list.

- to understand a new code,
- to compare products or equipment,
- to prepare for a test on a chapter,
- to learn a math formula,
- to understand a procedure,
- to explain a procedure to a supervisor or client.

PART II

USE A METHOD TO FIND DETAILS

Purpose directs your search for details as you ask questions like, *What do I need or want? What am I going to do? What is expected of me?* Your search for details should be guided by a method. The method below will help you search for the right details. In this method, we use four steps to locate and extract the right information.

Four steps

1. *Define your purpose.* Your purpose might be to understand a process and/or to answer questions.
2. *Preview the reading.* Look over the whole piece. Pause to read or notice items: bold or *italic* print, diagrams, headings.
3. *Read carefully* to understand the whole piece.
4. *Locate details that answer the questions.* Reread with attention to select (and understand) the right details.

Passage 2 below describes a process – sterilization. Your purposes are to understand this process because it relates to working safely, *and* to answer the questions.

Use the four steps as you read Passage 2. Then answer the questions that follow. Answers are at the end of this skill manual.

Passage 2

Sterilization

Sterilization is the highest level of three levels of decontamination. It is the most effective type of decontamination against microbes, completely destroys all living organisms on a surface, and even kills bacterial spores, the most resistant form of life on Earth.

The most popular method of physical sterilization is the *steam autoclave*. It works like a pressure cooker. When steam is injected into the chamber at a high pressure, it becomes possible to raise the temperature above boiling water. If left in the autoclave long enough, the pressure and heat will penetrate into all the nooks and crannies of the object. Eventually, this will kill all of the living organisms, including bacterial spores. Another method is the use of dry heat. This works more like an oven than a pressure cooker. The objects are placed in a chamber and baked until all forms of life are dead.

Sterilization is a multi-step, time consuming and difficult process. In the salon environment, sterilizing is impractical and virtually impossible to do, therefore sanitation and disinfection are more common practices.

Questions

1. Decontamination kills bacterial spores, which are the most resistant form of life on earth.

T F

2. Which of the following is an accurate statement about sterilization?

- a) Sterilization is the only effective means of decontamination.
- b) Sterilization works like a pressure cooker.
- c) Sterilization kills most living surface bacteria.
- d) Sterilization can involve the use of heat to destroy living organisms.

3. What is the difference between sterilization with an autoclave and dry heat sterilization?

4. Explain what is meant by *decontamination*.

5. Salons make regular use of sterilization practices.

T F

Types of Details

Notice that the answers give you different types of detail or information.

Question 1 asks you whether a statement is correct (true or false). To answer the question, you need to find the place where you read the information, reread it, examine the details and decide if the statement is accurate.

Question 2 asks for the details in a process. Find the place in the passage where the process is described (in this case it's the whole passage). Compare the question with the process, detail by detail. When you do this you are examining the words (vocabulary details) and the order (details in sequence). In some cases, you will compare only one or two steps in a procedure; in other cases, you will compare the entire procedure, detail by detail. You do this to understand when and why you would use different products, different steps or different techniques.

Question 3 asks you to find a result. This involves the relationship of one (or more) detail to another. The answer could be a step in a process, a product, or the cause of a problem (diagnosis). Look for the details and the effect of each detail on the others to find a result.

Question 4 asks you to explain what something means. This is a vocabulary detail about a word commonly used in your trade. Assume you don't know what *decontamination* means. Look up the word in a dictionary or glossary. Use your own words or a simple sketch to make sure you understand it. A good test of your understanding is to explain it to someone else.

Question 5 asks you to evaluate information. Does the passage provide you with enough information in order to successfully answer the question? Are there any important details missing? What might happen if you tried to regularly use sterilization in a salon environment?

Preview your reading material

We have suggested you use the four steps to guide your ability to extract details. In technical reading, it is a good practice to browse the entire reading before you start (Step 2). When you preview a textbook or manual, *you get an overview of the whole.*

This *preview* gives you a sense of the whole before you focus on the details. It can help you find the passages, chapters or sections that answer your questions. Previewing also gives you a sense of the range of information available.

A reminder about questions

We suggested in Part II that you ask questions to extract the right details. Asking questions helps you understand each detail as you go.

Example: You might ask, "Do I understand?"

<i>decontamination</i>	Yes or No?
<i>microbes</i>	Yes or No?
<i>organisms</i>	Yes or No? "

If the answer to your question is no, you need to continue your search for answers that give you an understanding of the words and details of your trade.

PART III

THE NATURE OF DETAILS

Details cover a great range of information – anything from the history of hairstyling to the procedures for lightening hair. Some details are general in nature; some are very specific.

Details: General to Specific

The passage below is organized in a way that common to technical material. It starts with general information and description then examines specific details. The general information often introduces the “*how to*” details that you would find in a procedure.

Read Passage 3. Pay attention to the way information is organized in the passage.

Passage 3 Forms of Matter

Matter exists in the form of elements, compounds, and mixtures.

Elements are the basic unit of all matter. Because it is only composed of a single part or unit, an element cannot be reduced to a more simple substance. There are more than 109 known elements. The *atom* is the smallest particle of an element that is capable of showing the properties of that element. *Molecules* are two or more atoms joined together chemically. When two of the same atoms are joined, the result is an element.

When two different atoms are joined, the result is a **compound**. A compound is any substance made up of two or more different elements chemically joined together. When joined, each element loses its characteristic properties and develops a new set of properties. There are four classes of compounds: *oxides, acids, alkalis, and salts*. (Refer to chapter 27).

Mixtures are substances made up of elements combined physically rather than chemically. The ingredients do not change their properties as in a compound, but retain their individual characteristics (refer to figure 5-3).

General details

Look again at paragraph one. It gives you general information about matter and tells you that matter exists in the following forms:

- elements
- compounds
- mixtures

Specific details

Look at how the second paragraph provides more precise detail. It tells the parts that make up an element:

- atom: the smallest particle of an element;
- molecule: two or more atoms joined together.

Paragraph three continues with a similar kind of detail – a more detailed description of a compound with a direction to refer to Chapter 27 to find out about the different kinds of compounds.

You can see that the details in paragraphs two and three are more specific than those in the first. These details build your understanding step-by-step so you have exact knowledge about an aspect of your trade.

From General to Specific

Technical material is usually organized in this way:

- ◆ Passages start with general information that gives a basic understanding of what something is or what it does; often you find out **why** you need to learn about it.
- ◆ You then read details that describe some aspect of the topic such as differences between types of static seals.
- ◆ Further on you may find specific details that take you through a systematic procedure such as that for installing seals.

Each part of the material develops and builds from the general to the specific. These details continue to add to your knowledge of your trade.

Extracting details from graphics

Graphics refer to any type of diagram or picture used to provide a visual representation of information. Graphics extract specific details that focus on what you need to know. *When you use graphics, in conjunction with text, you learn the important information.*

It is generally easier to understand and remember steps in a procedure, differences in material or how one part relates to another, when it is illustrated in a diagram.

Example: You might understand terms such as *concealed, side, centre, diagonal back* and *natural crown* better if you see a diagram showing each type of part.

Example: You may remember the steps and materials for performing a permanent wave if you see a diagram illustrating each stage.

Passage 4 and Figure 1 that follow show you how details in a passage and in a diagram work together. **Review the four steps and apply them to this exercise.**

Passage 4

Chemical Hair Relaxing

The presence of chemical bonds or links gives hair the ability to be permanently waved or chemically relaxed. They are as follows: *Sulphur or S bonds* (formed by the attraction of opposite electric charges), *hydrogen or H bonds* (formed by two atoms of hydrogen), and *disulfide or S-S bonds*, (formed by the joining of two sulfur atoms). Chemical bonds are the strongest bonds in the cortex of the hair. If even a few are broken, the hair will be weakened or damaged and if too many are broken, the hair will break off. (See chapter 36 for a review of hair composition including chemical bonds.)

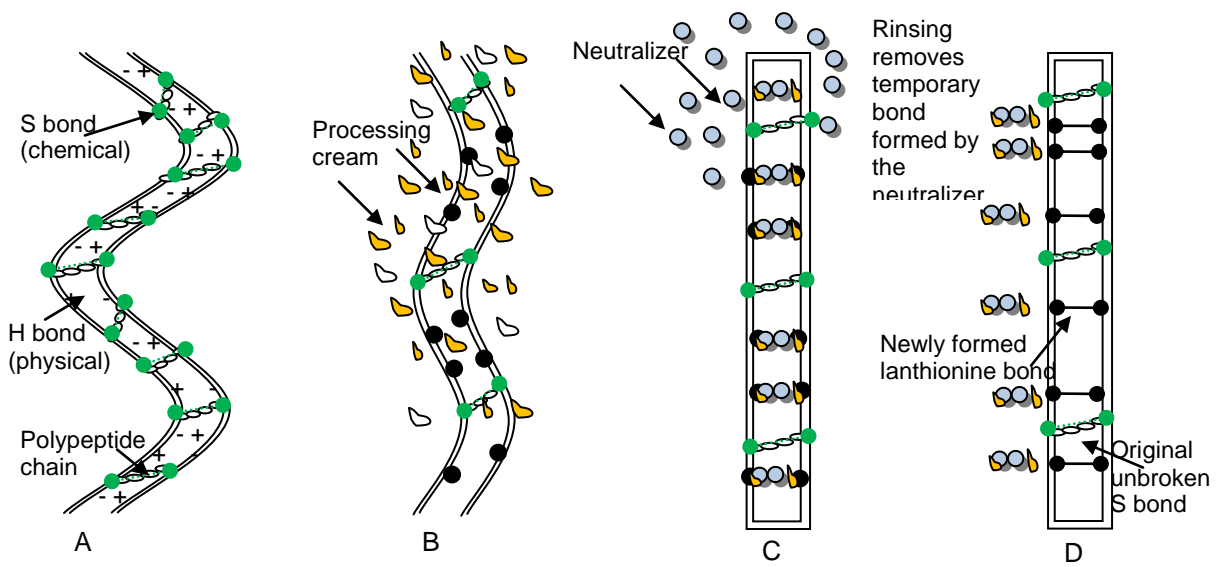


FIGURE 1:Chemical Hair Relaxing

During chemical hair relaxing, the disulfide bonds are broken, which leaves the hair in a relaxed and straightened form.

In order to curl or straighten hair, the disulfide bonds within the cortex must be broken and rearranged. Figure 1 illustrates the process of straightening curly hair. In Figure 1A, both H and S bonds hold the polypeptide chains in position. As the processing cream is added (Figure 1B), all the H bonds are broken as well as most of the S bonds. The neutralizer fixes the hair in a straight position after it has been relaxed (Figure 2C). The result is straightened hair (Figure 1D).

Extract details in the text *and* in the Figure to get the complete details and understanding. Make certain that when the text directs you to “see” something in the diagram, you look at that detail. If you don’t understand each aspect of the diagram, find other information to help you.

Carefully examine **Figure 1** above to:

- ◆ extract details,
- ◆ improve your understanding, and
- ◆ remember a definition (or principle).

Look at the detail available in Passage 4 and Figure 3. You can see:

- four steps,
- the untouched curled hair with the S and H bonds intact,
- the application of the processing cream,
- the rinsing action with the neutralizer
- the straightened hair, and.
- the order or sequence of chemical hair relaxing

The passage and diagram give you a sense of what the process looks like. You gain more information from the text and diagrams than from either on its own.

Text and graphics

The text gives definitions and details about a procedure, process or practice.

The graphic lets you see the details explained in the text. As you study a graphic, extract each detail and compare it to details in the text. Each piece of information in it relates to something in the text. Text or notes below a figure will add important details. Examine all of the information.

By combining information in the text with information in the diagram you get a more detailed understanding of a process, a procedure or a technique than you would from using either the text or diagram on its own

PART IV

BUILD ON EXPERIENCE

Experience will teach you to ask questions and to listen for the answers; this way you really understand what's expected of you. As you become familiar with your trade, you will figure out what kind of details you are expected to memorize and the kind you need to search for and extract only when you need them.

Example: You need to be aware of a large amount of technical information, from WHIMS symbols, general safety rules, and technical terms. You can't memorize every detail about every procedure. But you can learn to look up information and find the details you need.

Organize your notes

When you take notes in class or on the job, you write down details that are related to the task. Developing the skill of extracting details will make note taking easier. As you work at organizing your notes, you develop a note-taking system that is efficient and that makes the details quick and easy to find and to study. Creating your own lists and tables work well for this purpose.

Whether you use tables or lists to organize your notes and study materials, you can highlight, or mark(with checks or bullets) details that are important or related to each other. Developing a system to organize details will help you out as you learn new information; a system will help you find details when it's time to review.

Tables

A simple table with clear headings lets you organize details and then find (extract) them again when needed. You will organize details better if you remind yourself about your purpose.

Example: Examine the table below to see how it organizes details and makes it easy to extract information.

TABLE 1: Perm Rod Colour/Size Designation ⁽¹⁾

Medium Rods	Large Rods
Gray Black White	Beige Purple Green Orange

⁽¹⁾ **Note:** Rods of all diameters are available in long lengths. Medium and short lengths are not always available in all diameters. These shorter rods are used for wrapping small or awkward sections.

Details are easy to find in a table. The columns are labelled so you know what kind of detail each one has in it. This way you can look down a column to the information you want. And look across that row to the column where the information is.

Did you read the note below Table 1 above? The ⁽¹⁾ which follows the heading of the table directs you to a *footnote*. A footnote adds important detail. Make sure you read any footnotes.

Getting it wrong

As you search for information, you may find that you missed key details because you skimmed over them, or you picked the wrong details. If this happens, stop and check:

- Did you preview and read all the material before picking out details?
- Did you highlight the bits you extracted?

If you answered no to either question, you have to go back and, carefully, find what you missed.

If you still are picking the wrong details, check your purpose again. Be sure you know what you should be learning from the material. Be sure you understand after rereading. If not, who can help you?

Each time you approach new material, ask questions to make certain that you are extracting the right details from the start. Always be prepared to ask for help. It is part of the process.

Read the passage below and answer the questions. Use the four steps to guide you. Answers are at the end of this skills sheet.

Passage 5 Changes in Matter

Matter is anything that occupies space, has physical and chemical properties, and exists as either a solid liquid or gas. It can be changed in two ways; either through a physical or chemical means.

A *physical change* is a change in the form of a substance, without the formation of any new substance. As a hairstylist, you encounter this physical change to the outside of a hair shaft when a temporary

colour rinse is applied. The hair takes on a new appearance because the colour molecules have been physically added to the surface, but, there is no inherent change in the nature of the hair shaft.

Chemical changes occur when a new substance is formed, having properties that are different from the original substance. When you mix hydrogen peroxide into a para dye, for example, a chemical change occurs. A chemical reaction called *oxidation* occurs, and creates colour within the cortex of the hair. The chemical reaction between the two creates a new substance (a colour) with its own characteristic properties.

Questions:

1. Matter is something that takes up physical space and exists in one of three forms.
T F
2. Highlight the definition of a physical change in matter.
3. List the types of changes in matter named in the first paragraph of the passage.
4. What kind of change is oxidation?
5. How does a chemical change differ from a physical change?

Building strong reading skills and strategies will keep you on top of your trade. Over your career, techniques and materials will change, but with a solid reading foundation, you will know how to continue finding and using relevant details. Mastery of extracting details and the associated note-taking and study skills are a useful preparation for your chosen trade.

CONCLUSION

Detail extraction means pulling out the details you need for a specific purpose. If you know your purpose before you start, then you will look for the right details, and you will know what to do with them. Taking notes, creating tables, interpreting diagrams and highlighting key information are useful strategies for detail extraction. Being able to find relevant details efficiently can help you become a focussed reader, a better student, and a master of the information you need to be successful in your trade.

Summary

1. **Know your purpose.** Think about what you need before and during the reading.
2. **Use a four step method to extract details:**
 - a) Define your purpose.
 - b) Preview the reading by examining the whole piece.
 - c) Read everything carefully to understand the whole piece.
 - d) Locate details that answer your questions. Read with attention to identify and understand the right details.
3. **Understand the nature of details:** they move from general and specific.

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4. **Extract details from diagrams and illustrations** to understand procedures, various parts and their relationships. Combine this information with your text reading.
 5. **Organize your own data** in a table or chart for study and retrieval purposes.
 6. **Ask questions based on your experience;** use everything available to you.
 7. **Be prepared to follow up if information is not clear.** Talk to an expert in the trade, a teacher or use a different text or manual. All are excellent resources.

ANSWER PAGE

PART I Passage 1, Shaping Human Hair Wigs

1. Which of the following is an indication that the hair was *not* thinned close to the cap?
d) loose hair spurs

This is a straight forward detail question. Locate the part in the passage that discusses thinning the hair in paragraph 2. We can see that performing this step too closely may damage the cap, will remove additional bulk, and that caution must be taken when doing so in order to avoid cutting the wefts. We can therefore rule out answers **a)**, **b)** and **c)**. Answer **d)** is correct. If the hair was thinned, we would have removed the loose hair spurs.

2. Cutting the wig on the client's head will ensure it is the proper length prior to styling.
T The third paragraph tells us that "*it is a good idea to cut the wig while it is on the client's head.*" It goes on to say "*once you have determined the proper length and style, you can then move the wig back to the block.*" The answer is true.
3. Caution is necessary when shaping wigs in order to avoid causing unnecessary damage.
T The passage makes two references to being cautious in order to avoid damage. It uses the words "*take special care*" when referring to the tightness of knots, and tells us to "*Proceed cautiously*" with regard to the wefts and sewing threads on the wefts. The answer is true.
4. A block is the best surface on which to shape a human hair wig.
F The first sentence in the third paragraph states "*it can be more convenient to shape wigs on a canvas block.*" It goes on to say, however, that "*it is a good idea to cut the wig while it is on the client's head...*" Although it may be more *convenient* to use a block, the best way is to use both. The answer is false.

PART II Passage 2, Sterilization

1. Decontamination kills bacterial spores, which are the most resistant form of life on earth.
F Read the question closely and then look to the first paragraph for the answer. The passage tells us that there are three kinds of decontaminations. Only one type of decontamination, sterilization, kills *bacterial spores*. Pay close attention to specific wording.
2. Which of the following is an accurate statement about sterilization?
d) Sterilization can involve the use of heat to destroy living organisms.

Let's rule out the incorrect answers one by one. Answer **a)** is incorrect because the passage describes sterilization as the **most** effective means of decontamination not the **only** one. We can rule out answer **b)** because although there is one type of sterilization that works like a pressure cooker, there are also others: dry heat, being an example. Answer **c)** is incorrect because the passage actually states that sterilization "*completely destroys **all** living organisms on a surface*" not **most**. Our last choice, answer **d)** is correct. Paragraph two takes us through types of sterilization and both involve heat as a means of destroying organisms.

3. What is the difference between sterilization with an autoclave and dry heat sterilization?

The second paragraph answers this question. The difference is that the first uses steam and the second uses dry heat.

4. Explain what is meant by *decontamination*.

This is a vocabulary detail. You can start with a dictionary definition: *decontamination - the process of removing contamination or the risk of it from a person, area, object etc...affected by radioactivity, infectious disease, harmful chemicals, etc...* This can get you started, but you will need to follow up to understand what this means in relation to a salon, in other words, the application to your trade.

5. Salons make regular use of sterilization practices.

F The last paragraph deals with this issue. Although it is the best method for decontamination, sterilization is described by the passage as *multi-step, time consuming, and difficult*. It goes on to say that it is “*impractical and virtually impossible to do*” in a salon environment. It would seem that salons do not make regular use of sterilization practices.

PART IV Passage 5, Changes in Matter

1. Matter is something that takes up physical space and exists in one of three forms.

T The first sentence states that matter: *is anything that occupies space, has physical and chemical properties, and exists as either a solid liquid or gas*. So, anything that takes up physical space, takes up space. Also, there are three forms in which matter can exist: *solid, liquid or gas*.. The answer is **true**.

2. Highlight the definition of a physical change in matter.

Highlight the first sentence of the second paragraph: *A **physical change** is a change in the form of a substance, without the formation of any new substance.*

3. List the types of changes in matter named in the first paragraph of the passage.

In order, the changes in matter are: physical and chemical.

4. What kind of change is oxidation?

This answer is found in the last paragraph. It is a chemical reaction that creates colour within the cortex of the hair and therefore, it is a *chemical change*.

5. How does a chemical change differ from a physical change?

A chemical change differs from a physical change because it results in a new substance with properties different from the original substance. A physical change results in a change in form, but not in the substance.