Paraphrasing, Summarising, Synthesising

**Avoiding Plagiarism in Reporting: Paraphrase, Summary & Synthesis**

Good research takes time. Procrastinating makes it likely you'll run out of time or be unduly pressured to finish. This sort of pressure can often lead to sloppy research habits and bad decisions. Plan your research well in advance, and seek help when needed from your professor, from librarians and other campus support staff.

**Adapted from: Andy Gillett.** [**Using English for Academic Purposes**](http://www.uefap.net/)**. Using English for Academic Purposes. 2022.**

1. **Introduction**

One of the most important aspects of academic writing is making use of the ideas of other people. This is important as you need to show that you have understood the materials and that you can use their ideas and findings in your own way. In fact, this is an essential skill for every student. Spack (1988, p. 42) has pointed out that the most important skill a student can engage in is "the complex activity to write from other texts", which is "a major part of their academic experience." It is very important when you do this to make sure you use your own words unless you are quoting. You must make it clear when the words or ideas that you are using are your own and when they are taken from another writer. You must not use another person's words or ideas as if they were your own: this is plagiarism and plagiarism is regarded as a very serious offence.

The object of academic writing is for you to say something for yourself using the ideas of the subject, for you to present ideas you have learned in your own way. You can do this by:

-        Reporting the works of others in your own words.

-        Paraphrase if you want to keep the length the same,

-        Summarise if you want to make the text shorter

-        Synthesise if you need to use information from several sources.

Throughout this document, we are going to analyze how to carry out these different styles of quotations to make it easier for us to carry out our work. The objective is to avoid at all costs cases of plagiarism: Take and use another person's (thoughts, writings, inventions) as one's own. To better understand what this is and how to avoid it, we will provide some examples. Whether accidentally or deliberately, plagiarism should be avoided at all costs!

**Types of Plagiarism and examples**

Hamp-Lyons & Courter (1984, pp. 161-166) distinguish between four types of plagiarism:

* Outright copying
* Paraphrase plagiarism
* Patchwork plagiarism

**Examples:**

Original Text

While the Education Act of 1870 laid the groundwork for the provision of elementary or primary education for all children in England and Wales, it was not until the implementation of the 1944 Education Act that all girls and boys were entitled to a secondary education. Indeed, the decades immediately following the Second World War saw such a rapid increase in educational provision - in the USA, and many countries of Western and Eastern Europe, as well as in Britain - that some writers refer to the 'educational explosion' of the 1950s and 1960s. The minimum school-leaving age was extended from 14 to 15 years (in 1947) and raised to 16 (in 1971-2), but the proportion of people choosing to pursue their studies beyond this age hurtled upward; by 1971, 30 per cent of 17- year-olds were in full-time education in schools or colleges, compared with 2 per cent in 1902, 4 per cent in 1938, 18 per cent in 1961 and 22 per cent in 1966. The Robbins Report (1963) undermined the view that there was a finite pool of ability - a limited number of people who could benefit from advanced education - and provided ammunition for the expansion of higher education. This expansion took place through the establishment of new universities and growth of existing ones, as well as through the conversion of colleges into polytechnics which could offer degree courses, and the founding of the Open University. In 1970, 17.5 per cent of 18- year-olds entered further or higher education on a full-time basis (compared with 1.2 per cent in 1900, 2.7 per cent in 1938, 5.8 per cent in 1954, and 8.3 per cent in 1960); another three million people enrolled for part-time day classes, evening classes or sandwich courses.

*Bilton, Bonnett, Jones, Stanworth, Sheard & Webster (1981, p. 381)*

 **Example 1. Outright copying** is when a student uses exactly the same words as the original author without using quotation marks or saying where the words are from. For example:

|  |  |
| --- | --- |
| Student's text | While the Education Act of 1870 laid the groundwork for the provision of elementary or primary education for all children in England and Wales, it was not until the implementation of the 1944 Education Act that all girls and boys were entitled to a secondary education. Indeed, the decades immediately following the Second World War saw such a rapid increase in educational provision - in the USA, and many countries of Western and Eastern Europe, as well as in Britain - that some writers refer to the 'educational explosion' of the 1950s and 1960s. |

 **Example 2. Paraphrase plagiarism** is changing some of the words and grammar but leaving most of the original text the same. For example:

|  |  |
| --- | --- |
| Student's text | The Education Act of 1870 put down the basis for providing primary education for every child in the United Kingdom. It was not, however, until the establishment of the 1944 Education Act that all male and female children were given the right to education at secondary school. |

 **Example 3. Patchwork plagiarism** is when parts of the original author's words are used and connected together in a different way. For instance:

|  |  |
| --- | --- |
| Student's text | The right to elementary education for every child in England and Wales was established in the 1870 Education Act. However, the right to secondary education had to wait until the implementation of the 1944 Education Act. Following that act, in many countries of the world, there was such a rapid increase in educational provision that it was called the 'educational explosion' of the 1950s and 1960s. |

See also Modern Language Association (2009, pp. 56-58).

1. **Avoiding plagiarism in paraphrasing other authors**

Paraphrasing is writing the ideas of another person in your own words. You need to **change the words and the structure** but keep the meaning the same to avoid plagiarism. Look at this example:

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| --- |
| **Source** |
| It has long been known that Cairo is the most populous city on earth, but no-one knew exactly how populous it was until last month. |
| **Paraphrase in our text** |
| Although Cairo has been the world's most heavily populated city for many years, the precise population was not known until four weeks ago. |

**The following stages may be useful to paraphrase ideas found in articles:**

1. Read and understand the text.
2. Make a list of the main ideas.
	1. Find the important ideas - the important words/phrases. Mark them using Zotero by highlight them and/or add them to notes.
	2. Find alternative words/synonyms for these words/phrases but do not change specialised vocabulary (keywords).
	3. Examples:

*Paul Ekman from the University of California has conducted a long series of experiments on how nonverbal behaviour may reveal real inner states.*

Paul Ekman (200X) performed a sequence of investigations on the way nonverbal behaviour may disclose real internal conditions.

*There are reckoned to be over 4,000 plant species used by forest dwellers as food and medicine alone.*

Authors Y & X (200C) identified that more than 4,000 plant species are utilised by forest inhabitants just as foodstuffs and drugs.

*Memory is the capacity for storing and retrieving information.*
Memory is the facility for keeping and recovering data.

*Research and publications are accumulating in each of the four fields of anthropology at an exponential rate.*

Research in the four areas of anthropology are growing at a very fast speed during the last 5 years.

*It is worth looking at one or two aspects of the way a mother behaves towards her baby.*

It is useful to observe specific features of how a mother act when she is with her small child.

**Note:** This is not enough by itself if you want to use it in your assignment. You also need to change the words and the structure of the text.

1. Change the structure of the text.
	1. Identify the meaning relationships between the words/ideas - e.g. cause/effect, generalisation, contrast.
	2. Express these relationships in a different way.
	3. Change the grammar of the text: change nouns to verbs, adjectives to adverbs, etc., break up long sentences, combine short sentences.
		1. Examples:

*Many invertebrates, on the other hand, such as snails and worms and crustacea, have a spiral pattern of cleavage.*

In contrast, many invertebrates, such as snails and worms and crustacea, have a spiral pattern of cleavage.

*Similarly, the muscles will not grow in length unless they are attached to tendons and bones so that as the bones lengthen, they are stretched.*
Likewise, if the muscles are not attached to tendons and bones so that as the bones lengthen, they are stretched, they will not grow in length.

*Besides being a theory about the basis and origin of knowledge and the contents of our minds in general, empiricism is also sometimes a methodology.*Not only is empiricism a theory about the basis and origin of knowledge and the contents of our minds in general, it also sometimes a methodology.

*As opposed to this, Locke is often supposed to be saying that, in addition to properties, things have a "substratum" which "supports" their properties.*

Locke is often supposed to be saying, on the other hand, that, in addition to properties, things have a "substratum" which "supports" their properties.

*Consequently in a sense one may speak of the Common Law as unwritten law in contrast with Statute Law, which is written law*.

In a sense, therefore, one may speak of the Common Law as unwritten law in contrast with Statute Law, which is written law.

**Note:** This is not enough by itself. You also need to change the structure of the text.

1. Rewrite the main ideas in complete sentences. Combine your notes into a piece of continuous writing (paragraph).
2. Check your work.
	1. Make sure the meaning is the same.
	2. Make sure the length is the same.
	3. Make sure the style is your own.
3. **Avoiding plagiarism in summarizing information**

A summary is a shortened version of a text. It contains the main points in the text and is written in your own words. It is a mixture of reducing a long text to a short text and selecting relevant information. A good summary shows that you have understood the text.

Look at this example:

|  |
| --- |
| **Source** |
| *The amphibia, which is the animal class to which our frogs and toads belong, were the first animals to crawl from the sea and inhabit the earth.* |
| **Summary** |
| The first animals to leave the sea and live on dry land were the amphibia. |

Here, the phrase "which is the animal class to which our frogs and toads belong" is an example, not a main point, and can be deleted. The rest of the text is rewritten in your own words.

 **The following stages may be useful:**

1. Read and understand the text carefully.
2. Think about the purpose of the text.
	1. Ask what the author's purpose is in writing the text?
	2. What is your purpose in writing your summary?
	3. Are you summarising to support your poins?
	4. Or are you summarising so you can criticise the work before you introduce your main points?
3. Select the relevant information. This depends on your purpose.
4. Find the main ideas - what is important.
	1. They may be found in topic sentences.
	2. Distinguish between main and subsidiary information.
	3. Delete most details and examples, unimportant information, anecdotes, examples, illustrations, data etc.
	4. Find alternative words/synonyms for these words/phrases - do not change specialised vocabulary and common words.
	5. Examples:

*People whose professional activity lies in the field of politics are not, on the whole, conspicuous for their respect for factual accuracy.*

Politicians often lie.

*Failure to assimilate an adequate quantity of solid food over an extended period of time is absolutely certain to lead, in due course, to a fatal conclusion.*

If you do not eat, you die.

*The climatic conditions prevailing in the British Isles show a pattern of alternating and unpredictable periods of dry and wet weather, accompanied by a similarly irregular cycle of temperature changes.*

British weather is changeable.

*It is undeniable that the large majority of non-native learners of English experience a number of problems in attempting to master the phonetic patterns of the language.*

Many learners find English pronunciation difficult.

*Tea, whether of the China or Indian variety, is well known to be high on the list of those beverages which are most frequently drunk by the inhabitants of the British Isles.*

The British drink a large amount of tea.

*It is not uncommon to encounter sentences which, though they contain a great number of words and are constructed in a highly complex way, none the less turn out on inspection to convey very little meaning of any kind*.

Some long and complicated sentences mean very little.

*One of the most noticeable phenomena in any big city, such as London or Paris, is the steadily increasing number of petrol-driven vehicles, some in private ownership, others belonging to the public transport system, which congest the roads and render rapid movement more difficult year by year.*

Big cities have growing traffic problems.

**Note:** These are very simplistic examples but all of them CAN be used in our manuscript along with a CITATION

1. Rewrite the main ideas in complete sentences. Combine your notes into a piece of continuous writing. Use conjunctions and adverbs such as 'therefore', 'however', 'although', 'since', to show the connections between the ideas.
2. Check your work.
	1. Make sure your purpose is clear.
	2. Make sure the meaning is the same.
	3. Make sure the style is your own.
3. **Avoiding plagiarism synthesizing information**

A synthesis is a combination, usually a shortened version, of several texts made into one. It contains the important points in the text and is written in your own words.

To make a synthesis you need to find suitable sources, and then to select the relevant parts in those sources. You will then use your paraphrase and summary skills to write the information in your own words. The information from all the sources has to fit together into one continuous text.

**The following stages may be useful:**

1. Find texts that are suitable for your assignment.
2. Read and understand the texts.
3. Find the relevant ideas in the texts. Mark them in some way - write them down, underline them or highlight them.
4. Make sure you identify the meaning relationships between the words/ideas.
5. Read what you have marked very carefully.
6. Organise the information you have. You could give all similar ideas in different texts the same number or letter or colour.
7. Transfer all the information on to one piece of paper. Write down all simiar information together.
8. Paraphrase and summarise as necessary.
9. Check your notes with your original texts for accuracy and relevance.
10. Combine your notes into one continuous text.
11. **Example:**

As part of an essay, you need to include a section of about 100 words on the reasons for protecting the earth's tropical rainforests? You find the following information from different sources:

|  |  |
| --- | --- |
| 1 | A rainforest is a thick forest of tall trees which is found in tropical areas where there is a lot of rain. |
|  2 | Rainforest Map |

|  |  |
| --- | --- |
| 3 | * An area of tropical forest the size of Britain is deforested every year. This is one million acres a week or 100 acres a minute.
* In 1950, 30% of the earth was covered by tropical forest. By 1975, only 12% was left and in 2002, they now cover only about 6% of the earth's land.
* Today more than 40% of the world's original forests have gone. Latin America has lost 37% of its original tropical forests, Asia 42% and Africa 52%.
* The world is now losing its tropical forest at the rate of 7% a year and the end of the tropical rainforests is in sight.
 |
|  4 | Forests are one of the most valuable ecosystems in the world, containing over 60% of the world's biodiversity. This biodiversity has multiple social and economic values, . varying from the important ecological functions of forests in terms of soil and watershed protection to the economic value of the numerous products which can be extracted from the forest. For many indigenous and other forest-dependent people, forests are their livelihood. They provide them with edible and medicinal plants, bush meat, fruits, honey, shelter, firewood and many other goods, as well as with cultural and spiritual values. On a global scale, all forests play a crucial role in climate regulation and constitute one of the major carbon sinks on earth, their survival thus preventing an increase in the greenhouse effect. |

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| --- | --- |
| 5 | The United States Cancer Institute has identified more than 2,000 tropical rainforest plants with the potential to fight cancer. And yet, as the forests come down, such plants - and the hopes they embody - are destroyed. Already about 40% of all drugs prescribed in the United States owe all, or much, of their potency to chemicals from wildlife - largely from the rainforest. Quinine, which acts against malaria, comes from the bark of a South American tree. The armadillo is helping us find a cure for leprosy. Sufferers from . high blood pressure gain relief from the snakeroot plant from Indian forests. And the yam has given us the contraceptive pill. |
|  6 | Until now . there has been enough remote and underdeveloped land for small groups of people to follow their traditional ways of life without interference; and since such people rarely make any drastic change in their environment, their life is often life in the rain forests. The forest provides their food (wild vegetables, fruits and hunted animals) and their material culture (houses or shelters, boats, hunting equipment, twine, rope, poisons and medicines). There are reckoned to be over 4,000 plant species used by forest dwellers as food and medicine alone, many of which are local or endemic, known only to small groups whose knowledge of the forest is passed on orally, from generation to generation. Adapted to life in the forest, self-sufficient in it, using its products but never destroying their source, hunting forest animals but only according to need, such people both protect the forest and are protected by it. |
|  7 | Rainforests influence the carbon cycle (green plants take up carbon dioxide, which they convert to sugars by means of photosynthesis, a process during which oxygen is released into the air) and also have a profound effect on rainfall. The uneven surface of treetops causes air turbulence that increases the amount of water evaporating from the forest. This forms clouds that fall as rain. If forests disappear, less rain will fall, it will drain more quickly, and soil temperature will rise. |
|  8 | Most striking . is the obvious lack of trees. With the population growth in the region, the amount of land under cultivation increases. The forests are then cut down to make way for more agricultural terraces. This lack of trees has led to many problems. The soil is now exposed during the dry season and this land is very vulnerable to water erosion during monsoon rains. Lack of tree cover has led to a more exposed soil, highly susceptible to wind erosion. The consequent depletion of the topsoil reduces soil fertility, causing great concern to the food producing farmers. Kanda is located on very steep slopes. The soil substrate is soap stone, a particularly porous stone mined commercially. The area is thus made more vulnerable to landslides. Tree roots help retain soil stability when waterlogged by heavy downpours. In hilly areas, tree roots help in the maintenance of a healthy watershed system. Nowadays, with forests gone, many springs stop running in the dry season. Without the drawing action of deep tree roots, the underground water table has dropped beyond reach. Floods down stream from valleys such as Kanda are said to result from the lack of tree cover in the Himalayan Hills. With Monsoon patterns changing, and torrential unseasonal downpours increasingly common, this problem worsens to often catastrophic consequences. |
|  9 | Most of Bangladesh lies less than 10 metres above sea level. Over 90 million people live within this area. Floods in 1987 covered 40% of Bangladesh and in 1988 they covered 62%. In Bangladesh the 'normal floods' resulting from the 'usual' monsoon rainfall are considered a resource by farmers. Monsoon flooding is necessary for the maintenance of agriculture with floodwaters covering 30% of the land in a normal year. Yet in certain years they can experience disastrous flood events. Abnormal flooding occurs once every few years and is regarded as an undesirable and damaging phenomenon. All floods are not caused by the same factors. One possible cause is that forest clearance in the Himalayas is responsible. They say it removes large areas of trees, which takes an important water store away, so more water goes as surface runoff. When trees are present they act as a natural buffer against erosion and floods. Surface flow is slowed; rainwater infiltrates the soil by way of root channels; the leaf canopy protects the surface of the soil from the impact of large raindrops; and the root systems bind the soil particles. Forest clearance may be the cause of widespread soil erosion in areas like Nepal. Downstream from the Himalayas, uncontrolled runoff caused by deforestation in the catchment areas of the major rivers, and the increased silting of river channels as a result of soil erosion may have contributed to disastrous flooding in Bangladesh |

**Example of good Synthesis:**

Tropical rainforests spread around the centre of the earth, with the largest concentration of trees in Brazil [1]. Other large areas of rainforest are to be found in central Africa, Malaysia and Indonesia [2]. The total area of rainforest is rapidly and continually decreasing, mostly because of human intervention [3]. Either the forests are being exploited for wood and wood products, or they are being cleared to provide farmland. If this deforestation is not stopped, or otherwise controlled, the consequences could be catastrophic for those who live and work in the forests and for all of humankind.

Firstly, rainforests provide a habitat and a livelihood for many people. These forest-dwellers not only derive their material wealth from the jungle, but they also rely on it for their spiritual and cultural needs as the trees and plants are also objects of worship and sanctity [4]. With the uprooting of the forest, whole communities are also uprooted. Like the trees, they are doomed to wither and die. Besides those immediately affected by deforestation, people in the rest of the world will undoubtedly be worse off by the continued destruction of the jungles. More than two thousand tropical rainforest plants have been identified with the potential to fight cancer. Furthermore, a large number of drugs currently in use are derived from rainforest plants, for example, the jungle-dwelling armadillo may provide a cure for leprosy [5].

If without the rainforest the sick can no longer look forward to cures, the healthy have no cause for complacency either [6]. Forests help retain soil and protect the watershed [8]. Without them, ecological disasters on the scale of those seen recently in Bangladesh will become common and even more devastating [9]. The effect of rainforests on the air is equally crucial to their effect on the land. Trees influence the carbon cycle [7]. By absorbing carbon dioxide and emitting oxygen as part of the photosynthesis process, they effectively aerate the world. A reduction in the forested area will therefore lead to a reduction in breathable air.

It is clear, then, that for some, the rainforest is home and that the deliberate destruction of anyone's home should be of concern to the wider world community. It is also clear that the rainforest is an essential part of the ecosystem that all humans need, wherever they have their home, if they are to continue to exist

**How do we do it? Exercise explained**

**Step 1 Read and understand the texts.**

From a quick first reading it is clearly seen that the main reasons for protecting the rainforests are because of the livelihood of the people who live there, the wealth of medicinal plants, their uses in protecting against soil erosion and their effect on the air.

**Steps 2-4. Find the relevant ideas in the texts. Mark them in some way - write them down, underline them or highlight them. Make sure you identify the meaning relationships between the words/ideas. Read what you have marked very carefully.**

The relevant areas of the text are therefore marked as well as useful background information for the introduction. The following colours are used: introduction, facts, the livelihood of the people who live there, the wealth of medicinal plants, their uses in protecting against soil erosion and their beneficial effect on the air.

|  |  |
| --- | --- |
| 1 | A rainforest is a thick forest of tall trees which is found in tropical areas where there is a lot of rain. |

|  |  |
| --- | --- |
| 2 | Rainforest Map |

|  |  |
| --- | --- |
| 3 | * An area of tropical forest the size of Britain is deforested every year. This is one million acres a week or 100 acres a minute.
* In 1950, 30% of the earth was covered by tropical forest. By 1975, only 12% was left and in 2002, they now cover only about 6% of the earth's land.
* Today more than 40% of the world's original forests have gone. Latin America has lost 37% of its original tropical forests, Asia 42% and Africa 52%.
* The world is now losing its tropical forest at the rate of 7% a year and the end of the tropical rainforests is in sight.
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| 4 | Forests are one of the most valuable ecosystems in the world, containing over 60% of the world's biodiversity. This biodiversity has multiple social and economic values, . varying from the important ecological functions of forests in terms of soil and watershed protection to the economic value of the numerous products which can be extracted from the forest. For many indigenous and other forest-dependent people, forests are their livelihood. They provide them with edible and medicinal plants, bush meat, fruits, honey, shelter, firewood and many other goods, as well as with cultural and spiritual values. On a global scale, all forests play a crucial role in climate regulation and constitute one of the major carbon sinks on earth, their survival thus preventing an increase in the greenhouse effect. |

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| 5 | The United States Cancer Institute has identified more than 2,000 tropical rainforest plants with the potential to fight cancer. And yet, as the forests come down, such plants - and the hopes they embody - are destroyed. Already about 40% of all drugs prescribed in the United States owe all, or much, of their potency to chemicals from wildlife - largely from the rainforest. Quinine, which acts against malaria, comes from the bark of a South American tree. The armadillo is helping us find a cure for leprosy. Sufferers from . high blood pressure gain relief from the snakeroot plant from Indian forests. And the yam has given us the contraceptive pill. |

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| 6 | Until now . there has been enough remote and underdeveloped land for small groups of people to follow their traditional ways of life without interference; and since such people rarely make any drastic change in their environment, their life is often life in the rain forests. The forest provides their food (wild vegetables, fruits and hunted animals) and their material culture (houses or shelters, boats, hunting equipment, twine, rope, poisons and medicines). There are reckoned to be over 4,000 plant species used by forest dwellers as food and medicine alone, many of which are local or endemic, known only to small groups whose knowledge of the forest is passed on orally, from generation to generation. Adapted to life in the forest, self-sufficient in it, using its products but never destroying their source, hunting forest animals but only according to need, such people both protect the forest and are protected by it. |

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| --- | --- |
| 7 | Rainforests influence the carbon cycle (green plants take up carbon dioxide, which they convert to sugars by means of photosynthesis, a process during which oxygen is released into the air) and also have a profound effect on rainfall. The uneven surface of treetops causes air turbulence that increases the amount of water evaporating from the forest. This forms clouds that fall as rain. If forests disappear, less rain will fall, it will drain more quickly, and soil temperature will rise. |

|  |  |
| --- | --- |
| 8 | Most striking . is the obvious lack of trees. With the population growth in the region, the amount of land under cultivation increases. The forests are then cut down to make way for more agricultural terraces. This lack of trees has led to many problems. The soil is now exposed during the dry season and this land is very vulnerable to water erosion during monsoon rains. Lack of tree cover has led to a more exposed soil, highly susceptible to wind erosion. The consequent depletion of the topsoil reduces soil fertility, causing great concern to the food producing farmers. Kanda is located on very steep slopes. The soil substrate is soap stone, a particularly porous stone mined commercially. The area is thus made more vulnerable to landslides. Tree roots help retain soil stability when waterlogged by heavy downpours. In hilly areas, tree roots help in the maintenance of a healthy watershed system. Nowadays, with forests gone, many springs stop running in the dry season. Without the drawing action of deep tree roots, the underground water table has dropped beyond reach. Floods down stream from valleys such as Kanda are said to result from the lack of tree cover in the Himalayan Hills. With Monsoon patterns changing, and torrential unseasonal downpours increasingly common, this problem worsens to often catastrophic consequences. |

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| 9 | Most of Bangladesh lies less than 10 metres above sea level. Over 90 million people live within this area. Floods in 1987 covered 40% of Bangladesh and in 1988 they covered 62%. In Bangladesh the 'normal floods' resulting from the 'usual' monsoon rainfall are considered a resource by farmers. Monsoon flooding is necessary for the maintenance of agriculture with floodwaters covering 30% of the land in a normal year. Yet in certain years they can experience disastrous flood events. Abnormal flooding occurs once every few years and is regarded as an undesirable and damaging phenomenon. All floods are not caused by the same factors. One possible cause is that forest clearance in the Himalayas is responsible. They say it removes large areas of trees, which takes an important water store away, so more water goes as surface runoff. When trees are present they act as a natural buffer against erosion and floods. Surface flow is slowed; rainwater infiltrates the soil by way of root channels; the leaf canopy protects the surface of the soil from the impact of large raindrops; and the root systems bind the soil particles. Forest clearance may be the cause of widespread soil erosion in areas like Nepal. Downstream from the Himalayas, uncontrolled runoff caused by deforestation in the catchment areas of the major rivers, and the increased silting of river channels as a result of soil erosion may have contributed to disastrous flooding in Bangladesh. |

**Step 5. Organise the information you have. You could give all similar ideas in different texts the same number or letter or colour.**

|  |  |
| --- | --- |
| Introduction | what rain forests arewhere they arewhy they need protecting - 4 reasons |
| 1 | provide livelihood for people |
| 2 | wealth of medicinal plants |
| 3 | help prevent soil erosion |
| 4 | beneficial effect on climate and air |
| Conclusion | quick summarystress need to preserve |

**Steps 6-7. Transfer all the information on to one piece of paper. Write down all similar information together. Paraphrase and summarise as necessary.**

|  |
| --- |
| Tropical rainforests - centre of earth - most in Brazil - also central Africa, Malaysia and Indonesiaarea decrease (30% 1950, 6% 2002) left arrow human intervention:* forests exploited for wood
* cleared for farmland

if not stopped/controlled right arrow problems for those living & working in forests + all humans4 reasons:1. provide habitat & livelihood for people - derive their food & material wealth+ trees & plants are worshippeddecrease forest right arrow communities die
2. + rest of the world right arrow worse off2000+ rainforest plants right arrow able to fight cancer & other diseases (40% of US drugs) e.g. armadillo right arrow cure for leprosy
3. forests help retain soil and protect watershed - without them ecological disasters e.g. floods increase in Bangladesh
4. + effect on air crucial - trees affect carbon cycle - absorb CO2 emit O2 in photosynthesis - lungs of the worldtherefore decrease forest right arrow decrease clean air+ helps regulate climate & rain

Rainforest - home for some people & destruction of concern to all.+ rainforest = essential part human ecosystemtherefore must preserve |

**Steps 8-9. Check your notes with your original texts for accuracy and relevance. Combine your notes into one continuous text.**

Suggested answer:

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| Tropical rainforests spread around the centre of the earth, with the largest concentration of trees in Brazil. Other large areas of rainforest are to be found in central Africa, Malaysia and Indonesia. The total area of rainforest is rapidly and continually decreasing, mostly because of human intervention. Either the forests are being exploited for wood and wood products, or they are being cleared to provide farmland. If this deforestation is not stopped, or otherwise controlled, the consequences could be catastrophic for those who live and work in the forests and for all of humankind.Firstly, rainforests provide a habitat and a livelihood for many people. These forest-dwellers not only derive their material wealth from the jungle, they also rely on it for their spiritual and cultural needs as the trees and plants are also objects of worship and sanctity. With the uprooting of the forest, whole communities are also uprooted. Like the trees, they are doomed to wither and die.Besides those immediately affected by deforestation, people in the rest of the world will undoubtedly be worse off by the continued destruction of the jungles. More than two thousand tropical rainforest plants have been identified with the potential to fight cancer. Furthermore, a large number of drugs currently in use are derived from rainforest plants, for example, the jungle-dwelling armadillo may provide a cure for leprosy.If without the rainforest the sick can no longer look forward to cures, the healthy have no cause for complacency either. Forests help retain soil and protect the watershed. Without them, ecological disasters on the scale of those seen recently in Bangladesh will become common and even more devastating.The effect of rainforests on the air is equally crucial to their effect on the land. Trees influence the carbon cycle. By absorbing carbon dioxide and emitting oxygen as part of the photosynthesis process, they effectively aerate the world. A reduction in the forested area will therefore lead to a reduction in breathable air.It is clear, then, that for some, the rainforest is home and that the deliberate destruction of anyone's home should be of concern to the wider world community. It is also clear that the rainforest is an essential part of the ecosystem that all humans need, wherever they have their home, if they are to continue to exist. |

**Step 10. Check your work.**

1. Make sure your purpose is clear
2. Make sure the language is correct
3. Make sure the style is your own