

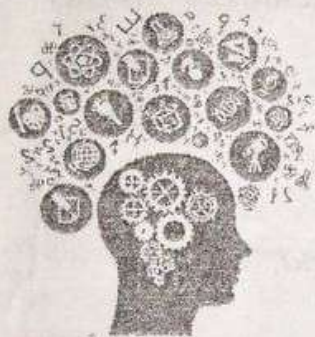
AYDI EST.

Open Learning & Translation

2021-2022

Third Year

First Term



1+2+3

Scientific

Texts

03/10.12.2021

07.01.2022

أ. محمد نور الإمام



Scientific Texts 3.1+2+3

AYDI 2022/ T1

LECTURE NO. 1

03.12.2021

HELLO EVERYONE!

In the Exam, there will be three texts to translate. A text to translate from English into Arabic, and this will be the easiest; a text from English into English; and finally a text to translate from Arabic into English. So, there will be *three texts, and /40/ questions*.

I will not repeat any text that we will take in the semester.

*

What is the difference between a scientific text and a literary text (such as, poem, novel, etc.)?

Student: In the scientific texts, we use special idioms.

Instructor: Yes. We use a special language and specialized words. *What else?*

Student: It depends on facts.

Instructor: Yes. *What about literary texts? It depends on what?*

Student: Events.

Instructor: *When you create something from your mind, what do we call it?*

Student: Imagination.

Instructor: Yes.

Students: Feelings, vivid words.

Instructor: Yes. *What do we call it when we compare something with something in literature?*

Student: Comparison, metaphor.

Instructor: Metaphor, yes. This is called a figure of speech. We have also simile, allusion and other figures of speech. *Do we find a metaphor in scientific texts?*

Students: No.

Instructor: *Why is that?*

Student: Because we have specific words and facts

Instructor: *or? Another reason?* Now, metaphors do not give you a direct meaning; they give you an indirect meaning. **Scientific texts** should be clear, direct and short. While metaphors are indirect, sometimes they are not very clear or they can be very long. Some metaphors can be as long

as a poem.

So, literary texts depend on the feelings, emotions and imagination of the writer, and they use figures of speech. **Scientific texts** depend on jargon (مصطلحات/ لغة اصطلاحية), which means specialized words that are used depending on the field you are talking about. So, if you are talking about computers, there is certain jargon. If you are talking about math, there is other jargon. And it depends on facts: there is nothing about the imagination of the writer, and it should be clear, direct and concise. *Concise* means *short*.

In scientific texts, the focus is on meaning. So you do not want the reader to enjoy certain images or metaphors; you just want to convey a certain and specific meaning.

Is there any other difference between a scientific text and a literary text?

Student: Maybe in a scientific text the writer should be objective.

Instructor: Yes, of course. In a scientific text, the writer must be objective. *What does it mean to be objective?*

Students: We do not include opinions, and it is based on reality.

Instructor: It is based on reality and facts. When we want to talk about something from an objective point of view, we do not include the (I) point of view. So, what we think and our opinion does not matter; what matters here is the fact and what is tangible (لمس) or what is based on experiments. So, if I want to write an article about the advantages of smoking from an objective point of view. For me, I hate smoking, but I have to stick to facts. Facts tell me there are advantages, so I have to write just about advantages. So, in objective writing, I cannot include my opinions, feelings or beliefs; I just use facts, experiments and scientific-proven issues. In literary, writing the point of view is subjective because it includes feelings and emotions of the writer.

Any other differences?

In literary texts, we have repetition. In scientific texts we should avoid repetition and being redundant (مستحب). Redundancy is using too many words that are useless. Sometimes, we have words that do not give meaning to the sentence, and we can delete them and the sentence will not change. We will talk about redundancy later; it is in the first unit in your book. So, **redundancy** is about words that are used, but we can delete them without affecting the meaning of the text. We use redundancy in literary texts, especially in novels. Some novels are very long; they can be

like 800-page long, and sometimes it can be really boring because they describe things in detail.

So, scientific texts should be short, clear, and direct. I am repeating this idea because it is very important.

Do you like to add anything about the differences?

Student: we use examples in scientific texts.

Instructor: Yes, we use examples to prove our argument or point of view.

Student: We have references.

Instructor: Yes, in scientific texts we use references to base the scientific text on previous studies.

In our course, we are doing scientific translation. *Have you ever tried to translate a scientific text?*

Now, translating a scientific text is much easier because we have specific **jargon** that you need to know and they come as they are. So, if you work in a political field, you use these words and if you work in like a scientific field of geography, you use these words. So, we have specific jargon for each domain.

Student: So, it is easier because we have specific words.

Instructor: Yes, specific words but sometimes there is a word that is used in a context and cannot be used in another context although it may give the same meaning.

*

Let us begin with the first text today.

Cesarean section has been part of human culture since ancient times and there are tales in both Western and non-Western cultures of this procedure resulting in live mothers and offspring. Yet, the early history of cesarean section remains shrouded in myth and is of dubious accuracy. Even the origin of "cesarean" has apparently been distorted over time. It is commonly believed to be derived from the surgical birth of Julius Caesar; however, this seems unlikely since his mother Aurelia is reputed to have lived to hear of her son's invasion of Britain.

The first part.

Cesarean section has been part of human culture since ancient times

and there are tales in both Western and non-Western cultures of this procedure resulting in live mothers and offspring.

Student:

كانت العملية القيصرية جزءاً من الثقافة الإنسانية منذ القديم، وهناك روايات في كل الثقافات الغربية وغير الغربية عن هذا الإجراء الذي نتج عنه أمهات وسلالات أحياء.

Instructor: (ancient times) does not mean (منذ القديم).

Student:

العملية القيصرية كانت جزءاً من الثقافة الإنسانية منذ العصور القديمة، وهناك حكايات في الثقافات الغربية وغير الغربية على حد سواء عن هذا الإجراء أسفرت عن أمهات ونسل أحياء.

Instructor: There is a problem with using the word (النسل).

Ok, what is the meaning of (offspring)? It is simply (الأطفال).

For (non-Western), it is absolutely not (شرقية) because if it is non-Western it does not make it Eastern.

The correct translation from yours.

لقد كانت العملية القيصرية جزءاً من الثقافة الإنسانية منذ العصور القديمة، وهناك روايات في الثقافات الغربية وغير الغربية عن هذه العملية، والتي أدت إلى نجاة أمهات وأطفالهن.

The second part.

Yet, the early history of cesarean section remains shrouded in myth and is of dubious accuracy. Even the origin of "cesarean" has apparently been distorted over time.

Student:

ومع ذلك، فإن التاريخ المبكر للولادة القيصرية بقي مغلفاً في الأسطورة وهو ذو دقة مشكوك فيها. وعلى ما يبدو حتى أصل كلمة "القيصرية" كان محرفاً بمرور الوقت.

Instructor: (التحريف) is used only with books.

(Distorted) can mean (not clear).

The correct translation from yours.

ومع ذلك، فإن تاريخ بدايات العمليات القيصرية ما يزال محجوباً ضمن أسطوره، حتى أن أصل كلمة "القيصرية" فقد تم تشويشه بشكل واضح عبر الزمن.

The last part.

It is commonly believed to be derived from the surgical birth of Julius Caesar; however, this seems unlikely since his mother Aurelia is reputed to have lived to hear of her son's invasion of Britain.

(Invasion of Britain) does not mean (an instance of invading a country or region with an armed force), but that (the idea was very widely spread

AYDI 2022/ T1

and it reached Britain).

By the way, Cesarean section was coincidence; his mother died while she was giving birth, so they had an idea to get the baby out.

Student:

ويعتقد عادة أنها مستمدة من الولادة الجراحية ليوليوس قيصر، ولكن هذا يبدو مستبعداً لأن والدته أوريليا عرفت أنها شهدت غزو فكرة ابنها لبريطانيا.

Instructor: The correct translation from yours.

ويعتقد عموماً أنها مشتقة من الولادة الجراحية ليوليوس قيصر. كانت السعادة لتغمر والدة يوليوس قيصر أوريليا لو أنها عاشت لتشهد شهرة فكرة ابنها سيزار التي اجتاحت العالم.

Thank You

...

LECTURE NO.2

10.12.2021

HELLO EVERYONE!

Before we start, you should take into consideration that in scientific texts the shorter the number of words is, the better it would be because the focus here is on the meaning only, we just want to convey a clear, direct, and concise meaning. So, in our translated text, we try to be as concise and clear as possible. Even if the original text is not clear and concise, the translator is expected to offer a text that is easily understood by readers if that is possible; otherwise there is no point of translating the text after all.

This means that the translator of the scientific text is supposed to have sufficient knowledge about the subject matter that s/he is dealing with.

The text: neurodevelopmental

اضطراب فرط الحركة وتشتت الانتباه هو أحد اضطرابات النمو العصبية يحدث في مرحلة الطفولة، ويستمر حتى مرحلة البلوغ ومرحلة الرشد بأشكال وأعراض مختلفة. كما أنه أحد اضطرابات النمو العصبية والذي ينتج عن نقص في كمية الموصلات الكيميائية (الدوبامين، النورأدرينالين) في قشرة الجزء الأمامي (الفص الجبهي) التي تسهل للخلايا تنفيذ عملها والتواصل بين أطراف الدماغ. لا توجد أسباب واضحة ودقيقة حول سبب حدوث الاضطراب؛ ولكن يوجد بعض الدراسات التي أثبتت ارتباط الاضطراب ببعض العوامل (مثل: التاريخ العائلي، التعرض للسموم، التعرض لإصابات أثناء الحمل أو الولادة أو الشهور الأولى بعد الولادة). لا

adulthood Puberty
chemical conductors amount deficiency
Facilitate frontal lobe frontal cortex
carry out
defined clear
childbirth
toxins exposure

Comprehensive

↑ assess

يوجد تحليل لتشخيص الاضطراب؛ ولذلك فإن التشخيص يتم بتقييم شامل للحالة على يد طبيب مختص بتشخيص الاضطراب عن طريق الفحص السريري؛ لاستبعاد كافة الاحتمالات الأخرى التي قد تسبب نفس أعراض الاضطراب وجمع المعلومات كالتاريخ المرضي والعائلي للشخص، ومطابقة معلومات الحالة بمعايير التشخيص.

The first paragraph.

اضطراب فرط الحركة وتشتت الانتباه هو أحد اضطرابات النمو العصبية يحدث في مرحلة الطفولة، ويستمر حتى مرحلة البلوغ ومرحلة الرشد بأشكال وأعراض مختلفة.

Student: (ADHD) is a neurodevelopmental disorder that occurs in childhood, lasting until Puberty and adulthood with different forms and symptoms.

Instructor: It is better to use (various) not (different) because when you say (different) every person with ADHD will have different symptoms.

The correct translation from yours:

Attention deficit hyperactivity disorder (ADHD) is a childhood-onset neurodevelopmental disorder, and persists into Puberty and adulthood with various forms and symptoms.

*

The second paragraph.

كما أنه أحد اضطرابات النمو العصبية والذي ينتج عن نقص في كمية الموصلات الكيميائية (الدوبامين، النورأدرينالين) في قشرة الجزء الأمامي (الفص الجبهي) التي تسهل للخلايا تنفيذ عملها والتواصل بين أطراف الدماغ.

(الوصلات الكيميائية) means chemical conductors, not chemical transporters.

Student: It is also a neurodevelopmental disorder that results from a shortage of chemical conductors (dopamine, noradrenaline) in the prefrontal cortex (frontal lobe) that make it easier for cells to carry out their work and communicate between the limbs of the brain.

Instructor: The correct translation from yours:

It is also one of the neurodevelopmental disorders, which results from a deficiency in the amount of chemical conductors (Dopamine and Noradrenaline) in the cortex of the frontal part (frontal lobe) that facilitate the cells to carry out their work and connect the parts of the brain.

*

The third paragraph.

AYDI 2022/ T1

لا توجد أسباب واضحة ودقيقة حول سبب حدوث الاضطراب؛ ولكن يوجد بعض الدراسات التي أثبتت ارتباط الاضطراب ببعض العوامل (مثل: التاريخ العائلي، التعرض للسموم، التعرض لإصابات أثناء الحمل أو الولادة أو الشهور الأولى بعد الولادة).

Student: There are no clear and precise reasons for the disturbance; However, there are some studies that have shown that the disorder is linked to some factors (e.g.: family history, exposure to toxins, exposure to injuries during pregnancy, childbirth or the first months after birth).

Instructor: The correct translation from yours:

There are no clear and defined reasons for the disorder. However, some studies have proven that this disorder is linked to some factors (such as: family history, exposure to toxins, and injuries during pregnancy, childbirth, or the months right after birth).

*

The fourth paragraph.

لا يوجد تحليل لتشخيص الاضطراب؛ ولذلك فإن التشخيص يتم بتقييم شامل للحالة على يد طبيب مختص بتشخيص الاضطراب عن طريق: الفحص السريري.

Student: There is no diagnostic analysis of the disorder; Diagnosis is therefore carried out through a thorough assessment of the condition by a doctor who diagnoses the disorder through clinical examination.

Instructor: *What is the difference between a disorder, syndrome, and disease?*

Students: Disorder is (اضطراب), syndrome is (متلازمة), and disease is (مرض).

Instructor: My question is not a language question, but a medical one.

Disorder: something that happens to you and it cannot be related to virus or bacteria, it is something mental.

Syndrome: a group of symptoms; it is not necessary mean someone cannot function right.

Disease: it is when you got virus or bacteria and become sick.

What is the difference between psychologist and psychiatrist?

Psychologist: study psychology /5/ years, or either be specialist or therapist. They cannot prescribe a medicine.

Psychiatrist: study medicine, and they can prescribe a medicine.

For (الطبيب المختص), we can simply use (doctor) because a doctor is usually a specialist.

The correct translation from yours:

There is also no analysis to diagnose the disorder. Therefore, the diagnosis is done by comprehensive assess of the condition by a doctor who specializes in diagnosing the disorder through: A clinical examination;...

There is a big difference between **evaluate** and **assess**, even in Arabic between (تقييم) and (تقويم); to assess is (تقييم) which is what we need, it is just when you say something is right or wrong. While when you evaluate, you look into reasons and look up for solutions; the goal of **evaluate** is to **correct**, while the goal of **assessment** is just to **say yes or no**.

Here, I will accept (evaluate), but in other context is better to use (assess).

The last paragraph.

لاستبعاد كافة الاحتمالات الأخرى التي قد تسبب نفس أعراض الاضطراب. وجمع المعلومات كالتاريخ المرضي والعائلي للشخص، ومطابقة معلومات الحالة بمعايير التشخيص.

Student: to exclude all other possibilities that may cause the same symptoms of disorder; and to collect information such as a person's pathological and family history, and match the case information with diagnostic criteria.

Instructor: If you write (informations gathering) or (information collection) here, please delete it. Let me tell you why:

- To write (information) with (s) is wrong because it is an uncountable noun.

- *What is the difference between data and information?*

Student: The data become information after a process.

Instructor: Very good. So, *here we have data or information?* Here we have Data. The information is understood as a result of data.

In the text we have, they are gathering data.

The correct translation from yours:

...to exclude all other possibilities that may cause the same symptoms of this disorder; and gather data such as the person's medical and family history, and match the case information to the diagnostic criteria.

This text is a very similar text to a text that we translated last term, and it was in the exam.

Let me tell you why you found this text easy; you got it last week, you

spent five days at home, and you found it simple to deal with because you look up its vocabulary, etc.

The following text was a part of a previous exam.

اضطراب طيف التوحد عبارة عن حالة ترتبط بنمو الدماغ وتؤثر على كيفية تمييز الشخص للآخرين والتعامل معهم على المستوى الاجتماعي، مما يتسبب في حدوث مشكلات في التواصل والتفاعل الاجتماعي. كما يتضمن الاضطراب أنماطاً محددة ومتكررة من السلوك. ويشير مصطلح "الطيف" إلى مجموعة كبيرة من الأعراض ومستويات الشدة.

Do not use dictionaries; do not use phones.

Of course, *you are allowed to bring an English-English dictionary in the exam.*

I will give it to you; (اضطراب طيف التوحد) is (Autism Spectrum Disorder).

Give me your translations.

Student: Autism spectrum disorder is a condition associated with brain development that affects how a person distinguishes and treats others on a social level, causing problems in communication and social interaction. Disorder also involves specific and frequent patterns of behaviour.

The term "spectrum" refers to a wide range of symptoms and levels of severity.

Instructor: It is (brain) not (mind).

I do not have a problem with the word (mechanism), but the reason to choose it.

Student: Because I found it has more expression.

Instructor: We have something is called "text flexibility"; it refers to how much we can add or garnish the text itself, as a translator. A **literary** can be more able to change its words with the same meaning, while with **scientific** and political texts we cannot change something with another that is close or similar in meaning.

In English, you have some verbs have the same meaning, but they are very different. For example, the words **affect**, **influence**, and **impact**; when translate them they all will give you the same meaning (تأثير). Each verb of them had its own collocation. (to influence someone) is to change the way he believe or his view to certain things; (to affect something) is the action of one thing changing another; and (to impact) to have something related to collision that is an instance of one moving object/person striking violently against another, means that something leaves a

lasting impression.

What is the difference between repetitive and repeated?

Repeated is having been said or done again, while *repetitive* is happening many times in a similar way.

The translation:

Autism spectrum disorder is a condition related to brain development that impacts how a person perceives and socializes with others, causing problems in social interaction and communication. The disorder also includes limited and repetitive patterns of behavior. The term "spectrum" in autism spectrum disorder refers to the wide range of symptoms and severity.

Thank You

...
LECTURE NO.3

07.01.2022

HELLO EVERYONE!

The text:

There are thousands of stars visible to us from Earth, particularly if we do our observing in a really dark sky viewing area. However, in the Milky Way alone, there are hundreds of millions of them, not all visible to people on Earth. The Milky Way is not only home to all those stars; it contains "stellar nurseries" where newborn stars are being hatched in clouds of gas and dust.

All stars are very, very far away, except for the Sun. The rest are outside of our solar system. The closest one to us is called Proxima Centauri, and it lies 4.2 light-years away.

Most stargazers who have observed for a while start to notice that some stars are brighter than others. Many also seem to have a faint color. Some look blue, others white, and still others faint yellow or reddish hues. There are many different types of stars in the universe.

We bask in the light of a star — the Sun. It's different from the planets, which are very small in comparison to the Sun, and are usually made of rock (such as Earth and Mars) or cool gases (such as Jupiter and Saturn). By understanding how the Sun works, astronomers can gain a

deeper insight into how all stars work. Conversely, if they study many other stars throughout their lives, it's possible to figure out the future of our own star, too.

The first sentence.

There are thousands of stars visible to us from Earth, particularly if we do our observing in a really dark sky viewing area.

Student:

هناك آلاف النجوم المرئية لنا من الأرض، وخاصة إذا قمنا بملاحظتنا في منطقة رؤية سماء مظلمة حقاً.

Instructor: The correct translation from yours:

هناك الآلاف من النجوم المرئية من الأرض بالنسبة لنا، خاصة إذا قمنا برصدها في منطقة مظلمة تماماً مخصصة لمشاهدة السماء.

The second sentence.

However, in the Milky Way alone, there are hundreds of millions of them, not all visible to people on Earth.

Student:

ومع ذلك، في درب التبانة وحدها، هناك مئات الملايين منها، ليست كلها مشاهدة للناس على الأرض.

Instructor: The correct translation from yours.

ومع ذلك، هنالك في مجرة درب التبانة وحدها مئات الملايين من هذه النجوم التي لا يمكن لجميع الناس رؤيتها من على الأرض.

The third sentence.

The Milky Way is not only home to all those stars; it contains "stellar nurseries" where newborn stars are being hatched in clouds of gas and dust.

- stellar nurseries: (حاضنات نجمية).

Student:

إن درب التبانة ليس موطننا لكل تلك النجوم فحسب، بل إنه يحتوي على "حاضنات نجمية" حيث تخلق النجوم حديثي الولادة في غيوم من الغاز والغبار.

Instructor: It is wrong to say (تخلق); it is better to say (تتسكّل، تتكون), we even can say (تولد), but not (تخلق) or (تنشأ).

The correct translation from yours:

إن مجرة درب التبانة ليست موطن كل تلك النجوم فحسب، بل إنها تحتوي حاضنات نجمية تتكون/ تتشكل فيها النجوم الجديدة في سحب من الغاز والغبار.

The next paragraph.

All stars are very, very far away, except for the Sun. The rest are outside of our solar system. The closest one to us is called Proxima Centauri, and it lies 4.2 light-years away.

You should know that "light-year" is a unit to measure distance not time.

Student:

جميع النجوم بعيدة جداً، باستثناء الشمس. الباقي خارج نظامنا الشمسي. أقرب واحد إلينا يسمى "كروما سنتوري"، ويقع على بعد 4.2 سنة ضوئية.

Instructor: (Proxima Centauri) has a name in Arabic, which is (قنطور). (الأقرب).

Student:

كل النجوم بعيدة جداً، ما عدا الشمس، البقية خارج نظامنا الشمسي. الأقرب إلينا يدعى "قنطور الأقرب"، ويقع على بعد 4.2 سنة ضوئية.

Instructor: The correct translation from yours.

جميع تلك النجوم بعيدة جداً، باستثناء الشمس، وأما باقي النجوم فهي خارج نظامنا الشمسي. وأقربها إلينا يسمى «قنطور الأقرب» الذي يقع على بعد 4.2 سنة ضوئية.

Let us move on.

Most stargazers who have observed for a while start to notice that some stars are brighter than others. Many also seem to have a faint color. Some look blue, others white, and still others faint yellow or reddish hues.

Student:

معظم مراقبي النجوم الذين لاحظوا لفترة من الوقت تبدأ في ملاحظة أن بعض النجوم أكثر إشراقاً من غيرها. يبدو أن الكثير منهم لديهم لون خافت. البعض يبدو أزرق، والبعض الآخر أبيض، والبعض الآخر غاب عن الأنظار أصفر أو أحمر. (شاهدوا لفترة من الوقت).

Instructor: They did not (لاحظوا)، but (لاحظوا).

The correct translation from yours:

لاحظ معظم راصدي النجوم خلال مشاهدتهم لفترة من الوقت أن بعض النجوم أكثر لمعةً

AYDI 2022/ T1

من غيرها، بينما يبدو بعضها الآخر باهتاً. بعضها يبدو أزرق اللون وآخر أبيض، بينما غيرها أصغر باهت أو أحمر.

There is something you should get out from when you are translating, which is that if we have a word in the text, it does mean necessary to be translated. This means that we can omit words while translating, if it does not affect the meaning of course.*

Let us continue:

There are many different types of stars in the universe.

We bask in the light of a star — the Sun. It's different from the planets, which are very small in comparison to the Sun, and are usually made of rock (such as Earth and Mars) or cool gases (such as Jupiter and Saturn).

Student:

هناك العديد من أنواع النجوم المختلفة في الكون. نستلقي في ضوء نجم الذي هو الشمس. إنه يختلف عن الكواكب الصغيرة جداً مقارنة بالشمس، وعادة ما تكون مصنوعة من الصخور (مثل الأرض والمريخ) أو الغازات الباردة (مثل كوكب المشتري وزحل).

Student:

هناك العديد من أنواع النجوم المختلفة في الكون. نحن نحط في ضوء الشمس. فهو يختلف عن الكواكب، التي هي صغيرة للغاية مقارنة بالشمس، وعادة ما تكون مصنوعة من الصخور (مثل الأرض والمريخ) أو الغازات الباردة (مثل المشتري وزحل).

Instructor: It is wrong to use (نستلقي), it is simply means (we live).

It is better to translate (made) as (تتكون من) not (مصنوعة من).

The correct translation from yours:

هناك الكثير من أنواع النجوم المختلفة الموجودة في الكون. نعيش في ضوء نجم ألا وهو الشمس. إنه يختلف عن بقية الكواكب ذات الحجم الصغير مقارنة به. وعادة ما تكون هذه الكواكب مصنوعة من الصخور (كالأرض والمريخ) أو من الغازات الباردة (كوكب المشتري وزحل).

*

The last paragraph.

By understanding how the Sun works, astronomers can gain a deeper insight into how all stars work. Conversely, if they study many other

stars throughout their lives, it's possible to figure out the future of our own star, too.

Student:

من خلال فهم كيفية عمل الشمس، يمكن لعلماء الفلك الحصول على نظرة أعمق لكيفية عمل جميع النجوم. على العكس من ذلك، إذا درسوا العديد من النجوم الأخرى طوال حياتهم، فمن الممكن أيضاً معرفة مستقبل نجمنا.

Student:

بفهم كيفية عمل الشمس، يمكن للفلكيين الحصول على رؤية أعمق لكيفية عمل كل النجوم. وعلى العكس من ذلك، إذا درسوا العديد من النجوم الأخرى طوال حياتهم، فمن الممكن معرفة مستقبل نجمنا أيضاً.

Student:

عن طريق فهم طبيعة توهج الشمس، يستطيع علماء الفلك الوصول إلى فهم أكبر عن طبيعة نجمنا.

Instructor: Good, but why did you use the word (توهج); it is not in the English text?

Student: For the meaning.

Instructor: They are not studying how the sun shines; they are studying the whole process of the sun.

The correct translation from yours:

عن طريق فهم طبيعة الشمس، يستطيع علماء الفلك الوصول إلى فهم أكبر عن طبيعة نجمنا.

The whole text:

There are thousands of stars visible to us from Earth, particularly if we do our observing in a really dark sky viewing area. However, in the Milky Way alone, there are hundreds of millions of them, not all visible to people on Earth. The Milky Way is not only home to all those stars, it contains "stellar nurseries" where newborn stars are being hatched in clouds of gas and dust.

All stars are very, very far away, except for the Sun. The rest are outside of our solar system. The closest one to us is called Proxima Centauri, and it lies 4.2 light-years away.

Most stargazers who have observed for a while start to notice that some stars are brighter than others. Many also seem to have a faint color. Some look blue, others white, and still others faint yellow or reddish hues. There are many different types of stars in the universe.

We bask in the light of a star — the Sun. It's different from the

AYDI 2022/T1

planets, which are very small in comparison to the Sun, and are usually made of rock (such as Earth and Mars) or cool gases (such as Jupiter and Saturn). By understanding how the Sun works, astronomers can gain a deeper insight into how all stars work. Conversely, if they study many other stars throughout their lives, it's possible to figure out the future of our own star, too.

هناك الآلاف من النجوم المرئية من الأرض بالنسبة لنا، خاصة إذا قمنا برصدها في منطقة مظلمة تماماً مخصصة لمشاهدة السماء. ومع ذلك، يوجد في مجرة درب التبانة وحدها مئات الملايين من هذه النجوم التي لا يمكن لجميع الناس رؤيتها من على الأرض.

إن مجرة درب التبانة ليست موطن كل تلك النجوم فحسب، بل إنها تحتوي حاضنات نجمية تتكون/ تتشكل فيها النجوم الجديدة في سحب من الغاز والغبار.

جميع تلك النجوم بعيدة جداً، باستثناء الشمس، وأما باقي النجوم فهي خارج نظامنا الشمسي. وأقربها إلينا يسمى "قنطور الأقرب" الذي يقع على بُعد 4.2 سنة ضوئية.

لاحظ معظم راصدي النجوم خلال مشاهدتهم لفترة من الوقت أن بعض النجوم أكثر لمعة من غيرها، بينما يبدو بعضها الآخر باهتاً. بعضها يبدو أزرق اللون وآخر أبيض، بينما غيرها أصفر باهت أو أحمر.

هناك الكثير من أنواع النجوم المختلفة الموجودة في الكون.

نعيش في ضوء نجمٍ ألا وهو الشمس. إنه يختلف عن بقية الكواكب ذات الحجم الصغير مقارنةً به، وعادةً ما تكون هذه الكواكب مصنوعةً من الصخور (كالأرض والمريخ) أو من الغازات الباردة (كوكب المشتري وزحل). وعن طريق فهم طبيعة الشمس، يستطيع علماء الفلك الوصول إلى فهم أكبر عن طبيعة نجمنا.

Thank You



Page:

مؤسسة العائدي للخدمات الطلابية

Group:

مكتبة العائدي - التعليم المفتوح - قسم الترجمة



مكتبة العائدي: المزة- نفق الآداب



هاتف: 011 2119889



موبايل + واتساب: 0941 322227



025774