Crows can recognise themselves in mirrors, use tools and plan for the future,(which) all cognitive abilities more similar to those seen in primates than those of most other birds.

Kargalar aynada kendilerini tanıyabilir, alet kullanabilir ve gelecek için plan yapabilir;
tüm bu bilişsel yetenekler primatlarda görülenlere diğer kuşların çoğundan daha çok benzemektedir.

Felix Ströckens at the Ruhr University and his colleagues analysed the brains of common ostriches, brown warren chickens, racing homer pigeons and three members of the corvid family: carrion crows, hooded crows, and rooks.

Ruhr Üniversitesi'nden Felix Ströckens ve meslektaşları, adi devekuşları, kahverengi warren tavukları, yarış güvercinleri ve corvid ailesinin üç üyesinin beyinlerini analiz etti: leş kargaları, kapüşonlu kargalar ve kargalar.

These are the animals that had either been killed for food or pest control.

Bunlar ya yiyecek ya da haşere kontrolü için öldürülmüş hayvanlardır.

The researchers were able to analyse the nuclei of the birds' brain cells (BY) using a method called isotropic fractionation.

Araştırmacılar, izotropik fraksiyonlama adı verilen bir yöntem kullanarak kuşların beyin hücrelerinin çekirdeklerini analiz edebildi.

This allowed them to categorise the types of cells (WHICH ARE) present in each brain and (TO) estimate how many there were of each.

Bu, onların her bir beyinde bulunan hücre türlerini kategorize edebilmelerine ve her birinden kaç tane olduğunu tahmin edebilmelerine olanak sağladı.

The team found that corvids had the highest number of interneurons, small cells that pass on local signals and are involved in(ENGAGED IN) cognitive processing.

Ekip, yerel sinyalleri ileten ve bilişsel işleme dahil olan küçük hücreler olan internöronların en yüksek sayıda korvidlerde bulunduğunu tespit etti.

These cells process information received from sensory neurons and send inputs to motor neurons.

Bu hücreler duyusal nöronlardan alınan bilgileri işliyor ve motor nöronlara girdi gönderiyor.

They are involved in tasks such as decision making, future planning and risk assessment.

Karar verme, gelecek planlaması ve risk değerlendirmesi gibi görevlerde yer alırlar.

"If we think about (OF) the neuron as the main processing unit of the brain, we can assume that a higher number of neurons equals (= EŞİT OLMAK , MEANS, BRINGS) more processing power," says Ströckens.

Ströckens, "Nöronu beynin ana işlem birimi olarak düşünürsek, daha fazla sayıda nöronun daha fazla işlem gücüne eşit olduğunu varsayabiliriz" diyor.

But it is not enough to explain why crows have stronger cognitive abilities than most birds, he adds.

Ancak bunun kargaların neden çoğu kuştan daha güçlü bilişsel yeteneklere sahip olduğunu açıklamak için yeterli olmadığını da ekliyor.

Crows can recognise themselves in mirrors, use tools and plan for the future, all cognitive abilities more similar to those seen in primates than those of most other birds. Felix Ströckens at the Ruhr University and his colleagues analysed the brains of common ostriches, brown warren chickens, racing homer pigeons and three members of the corvid family: carrion crows, hooded crows, and rooks. These are the animals that had either been killed for food or pest control. The researchers were able to analyse the nuclei of the birds' brain cells using a method called isotropic fractionation. This allowed them to categorise the types of cells present in each brain and estimate how many there were of each. The team found that corvids had the highest number of interneurons, small cells that pass on local signals and are involved in cognitive processing. These cells process information received from sensory neurons and send inputs to motor neurons. They are involved in tasks such as decision making, future planning and risk assessment. "If we think about the neuron as the main processing unit of the brain, we can assume that a higher number of neurons equals more processing power," says Ströckens. But it is not enough to explain why crows have stronger cognitive abilities than most birds, he adds.

66.According to the passage, crows —--.

A) have the ability to reflect on previous events but do not have an understanding of the future

B) are diminishing in number because of the mass killings for pest control

C) are substantially similar to most other birds in terms of the cognitive abilities they have

D) have been studied because their resemblance to other species makes it hard to classify them

E) have cognitive skills which are similar in some ways to thinking abilities of primates

66.Parçaya göre, kargalar ---.

A) önceki olaylar üzerinde düşünme yeteneğine sahiptir ancak gelecek hakkında bir anlayışa sahip değildir

B) haşere kontrolü için yapılan toplu katliamlar nedeniyle sayıları azalıyor

C) sahip oldukları bilişsel yetenekler açısından diğer kuşların çoğuna büyük ölçüde benzerler

D) diğer türlere benzerlikleri onları sınıflandırmayı zorlaştırdığı için incelenmiştir

E) bazı yönlerden primatların düşünme becerilerine benzer bilişsel becerilere sahip olmak

Crows can recognise themselves in mirrors, use tools and plan for the future, all cognitive abilities more similar to those seen in primates than those of most other birds. Felix Ströckens at the Ruhr University and his colleagues analysed the brains of common ostriches, brown warren chickens, racing homer pigeons and three members of the corvid family: carrion crows, hooded crows, and rooks. These are the animals that had either been killed for food or pest control. The researchers were able to analyse the nuclei of the birds' brain cells using a method called isotropic fractionation. This allowed them to categorise the types of cells present in each brain and estimate how many there were of each. The team found that corvids had the highest number of interneurons, small cells that pass on local signals and are involved in cognitive processing. These cells process information received from sensory neurons and send inputs to motor neurons. They are involved in tasks such as decision making, future planning and risk assessment. "If we think about the neuron as the main processing unit of the brain, we can assume that a higher number of neurons equals more processing power," says Ströckens. But it is not enough to explain why crows have stronger cognitive abilities than most birds, he adds.

67.One can understand from the passage that intelligence that corvids have ----.

A) seems to develop more in time due to their reasoning capacities functioning well compared to that of others

B) could be seen in a specific member of the corvid family excluding the crows killed for food or pest control

C) is one of the most easily detected abilities they have as it can be seen and observed everywhere

D) may be related to them having an unusually high number of brain cells involved in processing information

E) is relatively equal to that of common ostriches, brown warren chickens, and racing homer pigeons

67.Parçadan anlaşıldığı üzere, yırtıcı kuşların sahip olduğu zeka----.

A) muhakeme kapasitelerinin diğerlerine kıyasla daha iyi işlemesi nedeniyle zaman içinde daha fazla geliştiği görülmektedir

B) Yiyecek veya haşere kontrolü için öldürülen kargalar hariç, corvid ailesinin belirli bir üyesinde görülebilir

C) her yerde görülebildiği ve gözlemlenebildiği için sahip oldukları en kolay tespit edilen yeteneklerden biridir

D) Bilginin işlenmesinde görev alan beyin hücrelerinin sayısının alışılmadık derecede yüksek olmasıyla ilişkili olabilir

E) adi devekuşları, kahverengi warren tavukları ve yarış güvercinlerininkine nispeten eşittir

Crows can recognise themselves in mirrors, use tools and plan for the future, all cognitive abilities more similar to those seen in primates than those of most other birds. Felix Ströckens at the Ruhr University and his colleagues analysed the brains of common ostriches, brown warren chickens, racing homer pigeons and three members of the corvid family: carrion crows, hooded crows, and rooks. These are the animals that had either been killed for food or pest control. The researchers were able to analyse the nuclei of the birds' brain cells using a method called isotropic fractionation. This allowed them to categorise the types of cells present in each brain and estimate how many there were of each. The team found that corvids had the highest number of interneurons, small cells that pass on local signals and are involved in cognitive processing. These cells process information received from sensory neurons and send inputs to motor neurons. They are involved in tasks such as decision making, future planning and risk assessment. "If we think about the neuron as the main processing unit of the brain, we can assume that a higher number of neurons equals more processing power," says Ströckens. But it is not enough to explain why crows have stronger cognitive abilities than most birds, he adds.

68.Which of the following statements is true according to the passage?

A) The researchers performed an ~~analysis of the nuclei of the birds' brain cells to help control pests.~~ ~~COPY PASTE HATASI~~

B) ~~Sensory neurons~~ process information and tasks are performed through cognitive processing.

C) The isotropic fractionation method ~~helped explain why crows have a higher number of brain cells compared to other birds.~~

D) The study found that small cells that pass on local ~~signals are used most when a risk is posed~~.

E) Risk calculation and contemplating the future are among the examples of reasoning that corvids exhibit

KATEGORİ ÖRNEK İLİŞKİSİ BANKO SORUDUR.

X…. is one of / is only one of…/ is among … category.

68.Parçaya göre aşağıdaki ifadelerden hangisi doğrudur?

A) Araştırmacılar, haşerelerin kontrolüne yardımcı olmak için kuşların beyin hücrelerinin çekirdeklerinin analizini yaptılar.

B) Duyusal nöronlar bilgiyi işler ve görevler bilişsel işlemleme yoluyla gerçekleştirilir.

C) İzotropik fraksiyonlama yöntemi, kargaların diğer kuşlara kıyasla neden daha fazla sayıda beyin hücresine sahip olduğunu açıklamaya yardımcı oldu.

D) Çalışma, yerel sinyalleri ileten küçük hücrelerin en çok bir risk söz konusu olduğunda kullanıldığını ortaya koymuştur.

E) Risk hesaplama ve geleceği düşünme, kargaların sergilediği akıl yürütme örnekleri arasındadır.

Grafting, where (Kİ BU TEKNİKTE) the root of one plant is attached to the shoot of another, has been used in agriculture for thousands of years to improve the growth of *plants such as apples and citrus trees* and to eradicate diseases.

Bir bitkinin kökünün diğerinin filizine tutturulduğu aşılama, elma ve narenciye ağaçları gibi bitkilerin büyümesini iyileştirmek ve hastalıkları ortadan kaldırmak için binlerce yıldır tarımda kullanılmaktadır.

But this technique was not thought to work for a major group of plants: the monocotyledons (or monocots).

Ancak bu tekniğin büyük bir bitki grubunda işe yaramayacağı düşünülüyordu: tek çenekliler (veya monokotlar).

This category includes all grasses like wheat and oats, as well as other high-value crops like(SUCH AS /INCLUDING) bananas and date palms.

Bu kategori, buğday ve yulaf gibi tüm otların yanı sıra muz ve hurma ağaçları gibi diğer yüksek değerli ürünleri de içerir.

These species lack (= DO NOT HAVE, ARE DEVOID OF) a tissue called vascular cambium, which helps grafts heal and fuse in many other plants.

Bu türler, diğer birçok bitkide greftlerin iyileşmesine ve kaynaşmasına yardımcı olan vasküler kambiyum adı verilen bir dokudan yoksundur.

Now, (today, now, at present, recently) Julian Hibberd at the University of Cambridge and his colleagues have found an approach that allows monocots to be grafted. (M..K.)
!!!! allow them TO GRAFT aşılamasına

Şimdi, Cambridge Üniversitesi'nden Julian Hibberd ve meslektaşları tek çeneklilerin aşılanmasına olanak tanıyan bir yaklaşım buldular.

They extracted a form of embryonic tissue from inside a monocot plant seed and applied it to the potential graft site between two monocot specimens belonging to the same species, for instance, wheat.

Tek çenekli bir bitki tohumunun içinden bir tür embriyonik doku çıkardılar ve bunu aynı türe ait, örneğin buğday gibi iki tek çenekli örnek arasındaki potansiyel aşılama bölgesine uyguladılar.

The tissue stimulated growth and fused the two plant halves together.

Doku büyümeyi teşvik etti ve iki bitki yarısını birbirine kaynaştırdı.

The researchers used fluorescent dyes to verify that the root and shoots had joined and could transport liquids and nutrients up and down the stem.

Araştırmacılar, kök ve sürgünlerin birleştiğini ve sıvı ve besin maddelerini gövdede yukarı ve aşağı taşıyabildiğini doğrulamak için floresan boyalar kullandı.

"I have written on the record that I thought it was near impossible. "

"Bunun neredeyse imkansız olduğunu düşündüğümü kayıtlara geçirdim.

So, as a science breakthrough, it's pretty(VERY, EXTREMELY, RATHER, SO =oldukça) amazing," says Colin Turnbull at Imperial College London.

Dolayısıyla, bilimsel bir buluş olarak oldukça şaşırtıcı" diyor Imperial College London'dan Colin Turnbull.
Pretty, VERY, EXTREMELY, RATHER, SO + sıfat/zarf

Grafting, where the root of one plant is attached to the shoot of another, has been used in agriculture for thousands of years to improve the growth of plants such as apples and citrus trees and to eradicate diseases. But this technique was not thought to work for a major group of plants: the monocotyledons (or monocots). This category includes all grasses like wheat and oats, as well as other high-value crops like bananas and date palms. These species lack a tissue called vascular cambium, which helps grafts heal and fuse in many other plants. Now, Julian Hibberd at the University of Cambridge and his colleagues have found an approach that allows monocots to be grafted. They extracted a form of embryonic tissue from inside a monocot plant seed and applied it to the potential graft site between two monocot specimens belonging to the same species, for instance, wheat. The tissue stimulated growth and fused the two plant halves together. The researchers used fluorescent dyes to verify that the root and shoots had joined and could transport liquids and nutrients up and down the stem. "I have written on the record that I thought it was near impossible. So, as a science breakthrough, it's pretty amazing," says Colin Turnbull at Imperial College London.

69.According to the passage, the method of grafting was believed not to work efficiently for monocots because ----.

A) they ~~are high-value and vulnerable crops~~ like bananas SORU KÖKKÜNÜ DİKKATLİ OKU DOĞRUDAN PARÇADAN KOPYALANAN AMA SORU KÖKÜ İLE UYUMSUZ SEÇENEK

B) the ~~diseases they have could not be eradicated until now~~

C) they ~~have been the world's most endangered crops~~

D) they lack ~~the necessary roots and shoots for grafting~~

E) they do not have the tissue of vascular cambium

69.Parçaya göre, aşılama yönteminin tek çenekliler için verimli çalışmadığına inanılıyordu çünkü ----.

A) muz gibi yüksek değerli ve hassas ürünlerdir

B) sahip oldukları hastalıklar şimdiye kadar ortadan kaldırılamadı

C) dünyanın nesli en çok tükenmekte olan bitkileri olmuşlardır

D) aşılama için gerekli kök ve sürgünlerden yoksundurlar

E) vasküler kambiyum dokusuna sahip değildirler

Grafting, where the root of one plant is attached to the shoot of another, has been used in agriculture for thousands of years to improve the growth of plants such as apples and citrus trees and to eradicate diseases. But this technique was not thought to work for a major group of plants: the monocotyledons (or monocots). This category includes all grasses like wheat and oats, as well as other high-value crops like bananas and date palms. These species lack a tissue called vascular cambium, which helps grafts heal and fuse in many other plants. Now, Julian Hibberd at the University of Cambridge and his colleagues have found an approach that allows monocots to be grafted. They extracted a form of embryonic tissue from inside a monocot plant seed and applied it to the potential graft site between two monocot specimens belonging to the same species, for instance, wheat. The tissue stimulated growth and fused the two plant halves together. The researchers used fluorescent dyes to verify that the root and shoots had joined and could transport liquids and nutrients up and down the stem. "I have written on the record that I thought it was near impossible. So, as a science breakthrough, it's pretty (VERY) amazing," says Colin Turnbull at Imperial College London.

70.Which of the following is true about the grafting of monocots?

A) Vascular cambium is a tissue ~~that triggers growth in all~~ grasses like wheat and oats and in crops like bananas and date palms.

B) Embryoni tissue extraction ~~is possible provided that the tissue concerned is vascular cambium.~~

~~C) The researchers' studies indicated that grafting can work not only in the same species but also between species.~~

~~D) The technique could be especially useful for combatting disease in vulnerable species which face extinction.~~

E) The scientists confirmed plant growth occurred as the transportation of liquids and nutrients was observed within the stem.

70.Tek çeneklilerin aşılanması ile ilgili aşağıdakilerden hangisi doğrudur?

A) Vasküler kambiyum, buğday ve yulaf gibi tüm otlarda ve muz ve hurma gibi bitkilerde büyümeyi tetikleyen bir dokudur.

B) Embriyoni doku ekstraksiyonu, ilgili dokunun vasküler kambiyum olması koşuluyla mümkündür.

C) Araştırmacıların çalışmaları aşılamanın sadece aynı türde değil türler arasında da işe yarayabileceğini gösterdi.

D) Bu teknik özellikle nesli tükenme tehlikesiyle karşı karşıya olan hassas türlerde hastalıklarla mücadelede yararlı olabilir.

E) Bilim insanları, sıvıların ve besin maddelerinin gövde içinde taşınmasının gözlemlenmesiyle bitki büyümesinin gerçekleştiğini doğruladı.

Grafting, where the root of one plant is attached to the shoot of another, has been used in agriculture for thousands of years to improve the growth of plants such as apples and citrus trees and to eradicate diseases. But this technique was not thought to work for a major group of plants: the monocotyledons (or monocots). This category includes all grasses like wheat and oats, as well as other high-value crops like bananas and date palms. These species lack a tissue called vascular cambium, which helps grafts heal and fuse in many other plants. Now, Julian Hibberd at the University of Cambridge and his colleagues have found an approach that allows monocots to be grafted. They extracted a form of embryonic tissue from inside a monocot plant seed and applied it to the potential graft site between two monocot specimens belonging to the same species, for instance, wheat. The tissue stimulated growth and fused the two plant halves together. The researchers used fluorescent dyes to verify that the root and shoots had joined and could transport liquids and nutrients up and down the stem. "I have written on the record that I thought it was near impossible. So, as a science breakthrough, it's pretty amazing," says Colin Turnbull at Imperial College London.

71.What is the passage mainly about?

A) The grafting technique which is preferable for stimulating ~~plant growth effectively~~

B) Grafting ~~and its history as the most well-known plant growing technique~~

C)~~The species which require grafting the most in order to thrive~~

D) Making grafting possible for a specific plant species on Which it was previously believed not to work

E) ~~Factors contributing to successful plant growth subsequent to grafting~~

71.Parçada esas olarak ne anlatılmaktadır?

A) Bitki büyümesini etkin bir şekilde teşvik etmek için tercih edilen aşılama tekniği

B) Aşılama ve en iyi bilinen bitki yetiştirme tekniği olarak tarihçesi

C) Gelişmek için aşılamaya en çok ihtiyaç duyan türler

D) Daha önce işe yaramayacağı düşünülen belirli bir bitki türü için aşılamayı mümkün kılmak

E) Aşılamadan sonra başarılı bitki büyümesine katkıda bulunan faktörler

Water pollution control methods can be subdivided into three treatment systems.

Su kirliliği kontrol yöntemleri üç arıtma sistemine ayrılabilir.

Physical treatment systems rely on physical processes such as screening, filtration, and sedimentation to aid in the removal of pollutants.
Screening and filtration are similar methods used to separate coarse solids from water.

Fiziksel arıtma sistemleri, kirleticilerin giderilmesine yardımcı olmak için eleme, filtrasyon ve çökeltme gibi fiziksel süreçlere dayanır.
Eleme ve filtrasyon, kaba katı maddeleri sudan ayırmak için kullanılan benzer yöntemlerdir.

Suspended particles are also removed from water with the use of sedimentation processes.

Asılı partiküller de sedimantasyon prosesleri kullanılarak sudan uzaklaştırılır.

Just as in / Like / Similar to / Akin to/ As in / As with air pollution control, sedimentation devices exploit gravity to remove the heavier particles from the water stream.

Tıpkı hava kirliliği kontrolünde olduğu gibi, çökeltme cihazları da su akışından daha ağır partikülleri uzaklaştırmak için yerçekiminden faydalanır.

Chemical treatment systems, on the other hand, are those (=systems) which utilise chemical reactions to remove water pollutants or to form other, less toxic compounds.
Those+which / who.. yapanlar, edenler/ kimseler/şeyler

(Öte yanda, diğer yandan) Kimyasal arıtma sistemleri ise suyu kirleten maddeleri uzaklaştırmak ya da daha az toksik olan başka bileşikler oluşturmak için kimyasal reaksiyonlardan yararlanan sistemlerdir.

Chemical precipitation, for example is one of the most commonly used chemical treatment processes.

Örneğin kimyasal çökeltme en yaygın kullanılan kimyasal arıtma süreçlerinden biridir.

It utilises the addition of chemicals to the water in order to bring about the precipitation of dissolved solids.

Çözünmüş katı maddelerin çökelmesini sağlamak için suya kimyasalların eklenmesini kullanır.

A physical process such as sedimentation or filtration is then required to remove the solid.

Daha sonra katıyı uzaklaştırmak için çökeltme veya filtreleme gibi fiziksel bir işlem gereklidir.

Lastly, biological water pollution control methods are used for the control of biodegradable organic chemicals, as well as nutrients such as nitrogen and phosphorus.

Son olarak, biyolojik su kirliliği kontrol yöntemleri, biyolojik olarak parçalanabilen organik kimyasalların yanı sıra azot ve fosfor gibi besin maddelerinin kontrolü için kullanılır.

In these systems, microorganisms consisting mainly of bacteria turn carbonaceous matter into gas.

Bu sistemlerde, çoğunlukla bakterilerden oluşan mikroorganizmalar karbonlu maddeleri gaza dönüştürür.

There are two main groups of microorganisms used in biological treatment; aerobic and anaerobic microorganisms, each of which requires special climatic settings to work effectively.

Biyolojik arıtmada kullanılan iki ana mikroorganizma grubu vardır; aerobik ve anaerobik mikroorganizmalar, her biri etkili bir şekilde çalışmak için özel iklim ayarları gerektirir.

Water pollution control methods can be subdivided into three treatment systems. Physical treatment systems rely on physical processes such as screening, filtration, and sedimentation to aid in the removal of pollutants. screening and filtration are similar methods used to separate coarse solids from water. Suspended particles are also removed from water with the use of sedimentation processes. Just as in air pollution control, sedimentation devices exploit gravity to remove the heavier particles from the water stream. Chemical treatment systems, on the other hand, are those which utilise chemical reactions to remove water pollutants or to form other, less toxic compounds. Chemical precipitation, for example is one of the most commonly used chemical treatment processes. It utilises the addition of chemicals to the water in order to bring about the precipitation of dissolved solids. A physical process such as sedimentation or filtration is then required to remove the solid. Lastly, biological water pollution control methods are used for the control of biodegradable organic chemicals, as well as nutrients such as nitrogen and phosphorus. In these systems, microorganisms consisting mainly of bacteria turn carbonaceous matter into gas. There are two main groups of microorganisms used in biological treatment; aerobic and anaerobic microorganisms, each of which requires special climatic settings to work effectively.

72.According to the passage one mutual method used in air and water pollution control systems is to ----.

A) separate pollutants into sub-categories before the process starts

B) decrease toxicity levels with chemical reactions

C) mix a variety of solutions to absorb pollutant agents

D) utilise gravity to remove particular pollutants

E) convert carbon-containing matter into gas

KIYAS VARSA SORU VAR

72.Parçaya göre hava ve su kirliliği kontrol sistemlerinde kullanılan ortak bir yöntem ---- -tır/-tir.

A) süreç başlamadan önce kirleticileri alt kategorilere ayırmak

B) kimyasal reaksiyonlarla toksisite seviyelerini azaltmak

C) kirletici maddeleri absorbe etmek için çeşitli solüsyonları karıştırmak

D) belirli kirleticileri uzaklaştırmak için yerçekiminden yararlanmak

E) karbon içeren maddeleri gaza dönüştürmek

Water pollution control methods can be subdivided into three treatment systems. Physical treatment systems rely on physical processes such as screening, filtration, and sedimentation to aid in the removal of pollutants. screening and filtration are similar methods used to separate coarse solids from water. Suspended particles are also removed from water with the use of sedimentation processes. Just as in air pollution control, sedimentation devices exploit gravity to remove the heavier particles from the water stream. Chemical treatment systems, on the other hand, are those which utilise chemical reactions to remove water pollutants or to form other, less toxic compounds. Chemical precipitation, for example is one of the most commonly used chemical treatment processes. It utilises the addition of chemicals to the water in order to bring about the precipitation of dissolved solids. A physical process such as sedimentation or filtration is then required to remove the solid. Lastly, biological water pollution control methods are used for the control of biodegradable organic chemicals, as well as nutrients such as nitrogen and phosphorus. In these systems, microorganisms consisting mainly of bacteria turn carbonaceous matter into gas. There are two main groups of microorganisms used in biological treatment; aerobic and anaerobic microorganisms, each of which requires special climatic settings to work effectively.

73.It is clear in the passage that the chemical precipitation process ---.

A) decreases toxicity levels ~~faster than~~ biological processes

B) is among the most preferred chemical methods for water pollution control

C) includes the use of heavy chemicals ~~that may harm underwater species~~

D) ~~requires~~ specific microorganisms to be effective

E) is particularly efficient ~~in removing~~ heavy metals

73.Parçada kimyasal çökeltme işleminin ---.

A) toksisite seviyelerini biyolojik süreçlerden daha hızlı düşürür

B) su kirliliğinin kontrolü için en çok tercih edilen kimyasal yöntemler arasındadır!

C) su altı türlerine zarar verebilecek ağır kimyasalların kullanımını içerir

D) Etkili olabilmesi için belirli mikroorganizmalar gerektirir

E) özellikle ağır metallerin giderilmesinde etkilidir

Water pollution contro! methods can be subdivided into three treatment systems. Physical treatment systems rely on physical processes such as screening, filtration, and sedimentation to aid in the removal of pollutants. screening and filtration are similar methods used to separate coarse solids from w ater. Suspended particles are also removed from w ater w ith the use of sedimentation processes. Just as in air pollution control, sedimentation devices exploit gravity to remove the heavier particles from the w ater stream. Chemical treatment systems, on the other hand, are those w hich utilise chemical reactions to remove w ater pollutants or to form other, less toxic compounds. Chemical precipitation, for example is one of the most commonly used chemical treatment processes. It utilises the addition of chemicals to the w ater in order to bring about the precipitation of dissolved solids. A physical process such as sedimentation or filtration is then required to remove the solid. Lastly, biological w ater pollution control methods are used for the control of biodegradable organic chemicals, as w ell as nutrients such as nitrogen and phosphorus. In these systems, microorganisms consisting mainly of bacteria turn carbonaceous matter into gas. There are tw o main groups of microorganisms used in biological treatment; aerobic and anaerobic microorganisms, each of w hich requires special climatic settings to w ork effectively.

74.According to the Passage, aerobic and anaerobic microorganisms ---.

A) are ~~solely used for~~ the removal of phosphorus from w ater streams

B) ~~selectively destroy~~ disease-causing organisms in w ater

C) do not w ork ~~as efficiently on nitrogen as they do on biodegradable organic chemicals~~

~~AS...AS OLMAYAN KIYAN~~

D) rely on environmental conditions to function in an e efficient w ay

E) may ~~be as harmful to the environment as som~~

~~AS...AS OLMAYAN KIYAN~~

74.Pasaja göre, aerobik ve mikroorganizmalar ---.

A) yalnızca su akışlarından fosforun giderilmesi için kullanılır

B) Sudaki hastalık yapıcı organizmaları seçici olarak yok etmek

C) azot üzerinde biyolojik olarak parçalanabilen organik kimyasallar üzerinde olduğu kadar verimli çalışmazlar

D) verimli bir şekilde çalışmak için çevresel koşullara bağlıdır

E) çevre için som kadar zararlı olabilir

Muscles, bones, and connective tissues grow stronger by sustaining damage.	Kaslar, kemikler ve bağ dokuları hasar görerek güçlenir.
Skeletal muscle in particular responds to unfamiliar exercise with a measure of (some) harm.	Özellikle iskelet kası, alışılmadık egzersizlere bir miktar zararla karşılık verir.
Unlike other muscle tissues like the cardiac muscle, it is made up of long, thin fibres that are composed of several different proteins.	Kalp kası gibi diğer kas dokularının aksine, birkaç farklı proteinden oluşan uzun, ince liflerden oluşur.
These proteins interlock inside fibrous compartments called sarcomeres.	Bu proteinler sarkomer adı verilen lifli bölmeler içinde birbirine kenetlenir.
Sarcomeres can stretch, but only so far. = up to a point= it has limits	Sarkomerler esneyebilir, ancak sadece bir yere kadar.
During certain kinds of movements, some of these sarcomeres within the affected muscles are pulled past (BEYOND) their tolerance.	Belirli hareket türleri sırasında, etkilenen kaslardaki bu sarkomerlerin bazıları toleranslarının ötesine çekilir.
The proteins inside separate, resulting in micro-tears throughout the muscle tissue.	İçindeki proteinler ayrılır ve kas dokusu boyunca mikro yırtıklara neden olur.
Hours or even a day or two after the exercise, this cellular-level damage is thought to lead to inflammation. OR EVEN: hatta Passive +to verb / to be v3 / to have v3/ to have been v3	Egzersizden saatler hatta bir ya da iki gün sonra, bu hücresel düzeydeki hasarın iltihaplanmaya yol açtığı düşünülmektedir.
Blood vessels dilate in the affected sections of muscle, white blood cells and other immune-system-related cells flood in, and tissues swell and warm.	Kasın etkilenen bölümlerinde kan damarları genişler, beyaz kan hücreleri ve bağışıklık sistemiyle ilgili diğer hücreler akın eder ve dokular şişer ve ısınır.
This familiar sensation is known as 'delayed onset muscle soreness, or DOMS, and affects anyone who works out.	Bu tanıdık his 'gecikmiş başlangıçlı kas ağrısı' veya DOMS olarak bilinir ve egzersiz yapan herkesi etkiler.
Strange muscle contractions during which forces are applied to muscles as they lengthen, are the main causative factors.	Kaslar uzarken onlara kuvvetlerin uygulandığı garip kas kasılmaları, ana nedensel faktörlerdir.
In general, this soreness is a good thing. Afterwards, the tissues rebuild themselves, becoming stronger and more flexible, a process known as adaptation.	Genel olarak bu ağrı iyi bir şeydir. Daha sonra, dokular kendilerini yeniden inşa ederek daha güçlü ve daha esnek hale gelir, bu adaptasyon olarak bilinen bir süreçtir.

Muscles, bones, and connective tissues grow stronger by sustaining damage. Skeletal muscle in particular responds to unfamiliar exercise with a measure of harm. Unlike other muscle tissues like the cardiac muscle, it is made up of long, thin fibres that are composed of several different proteins. These proteins interlock inside fibrous compartments called sarcomeres. Sarcomeres can stretch, but only so far. During certain kinds of movements, some of these sarcomeres within the affected muscles are pulled past their tolerance. The proteins inside separate, resulting in micro-tears throughout the muscle tissue. Hours or even a day or two after the exercise, this cellular-level damage is thought to lead to inflammation. Blood vessels dilate in the affected sections of muscle, white blood cells and other immune-system-related cells flood in, and tissues swell and warm. This familiar sensation is known as 'delayed onset muscle soreness, or DOMS, and affects anyone who works out. Strange muscle contractions during which forces are applied to muscles as they lengthen, are the main causative factors. In general, this soreness is a good thing.
Afterwards, the tissues rebuild themselves, becoming stronger and more flexible, a process known as adaptation.

75.According to the passage, when the sarcomeres stretch beyond their limit ---.

A) it leads to a small amount of damage in the muscle tissue which becomes sore

B) muscles ~~require professional treatment~~ to heal afterwards

C) the proteins that they contain ~~start to connect with one another~~

D) ~~it becomes impossible to exercise~~ in the following couple of days

E) they cause cellular-level damage ~~which can be alleviated in a couple of hours~~

75.Parçaya göre, sarkomerler sınırlarının ötesinde gerildiğinde ---.

A) ağrılı hale gelen kas dokusunda az miktarda hasara yol açar

B) Kasların daha sonra iyileşmesi için profesyonel tedavi gerekir

C) içerdikleri proteinler birbirleriyle bağlantı kurmaya başlar

D) Takip eden birkaç gün içinde egzersiz yapmak imkansız hale gelir

E) birkaç saat içinde hafifletilebilecek hücresel düzeyde hasara neden olurlar

Muscles, bones, and connective tissues grow stronger by sustaining damage. Skeletal muscle in particular responds to unfamiliar exercise with a measure of harm. Unlike other muscle tissues like the cardiac muscle, it is made up of long, thin fibres that are composed of several different proteins. These proteins interlock inside fibrous compartments called sarcomeres. Sarcomeres can stretch, but only so far. During certain kinds of movements, some of these sarcomeres within the affected muscles are pulled past their tolerance. The proteins inside separate, resulting in micro-tears throughout the muscle tissue. Hours or even a day or two after the exercise, this cellular-level damage is thought to lead to inflammation. Blood vessels dilate in the affected sections of muscle, white blood cells and other immune-system-related cells flood in, and tissues swell and warm. This familiar sensation is known as 'delayed onset muscle soreness, or DOMS, and affects anyone who works out. Strange muscle contractions during which forces are applied to muscles as they lengthen, are the main causative factors. In general, this soreness is a good thing. Afterwards, the tissues rebuild themselves, becoming stronger and more flexible, a process known as adaptation.

76.According to the passage which of the following is true about DOMS?

A) It creates a burning sensation right after the exercise and disappears quickly.
ÖNCE – ESNASINDA – SONRA >>MİLLİ KURGU, MİLLİ ÇELDİRİCİ

B) It is not experienced by people who do certain kinds of exercise. TAMLAMA NİTELEME

C) It results in an irreversible damage done to muscle tissue.
SIFAT/ZARF

D) It is the result of extending the muscle fibres while working out.

E) It could be avoided by comprehensive warm-up before exercise.
ÖNCE – ESNASINDA – SONRA >>MİLLİ KURGU, MİLLİ ÇELDİRİCİ

76.Parçaya göre DOMS hakkında aşağıdakilerden hangisi doğrudur?

A) Egzersizden hemen sonra yanma hissi yaratır ve hızla kaybolur.

B) Belirli egzersiz türlerini yapan kişilerde görülmez.

C) Kas dokusunda geri dönüşü olmayan bir hasara yol açar.

D) Egzersiz sırasında kas liflerinin uzamasının bir sonucudur.

E) Egzersizden önce kapsamlı bir ısınma ile önlenebilir.

Muscles, bones, and connective tissues grow stronger by sustaining damage. Skeletal muscle in particular responds to unfamiliar exercise with a measure of harm. Unlike other muscle tissues like the cardiac muscle, it is made up of long, thin fibres that are composed of several different proteins. These proteins interlock inside fibrous compartments called sarcomeres. Sarcomeres can stretch, but only so far. During certain kinds of movements, some of these sarcomeres within the affected muscles are pulled past their tolerance. The proteins inside separate, resulting in micro-tears throughout the muscle tissue. Hours or even a day or two after the exercise, this cellular-level damage is thought to lead to inflammation. Blood vessels dilate in the affected sections of muscle, white blood cells and other immune-system-related cells flood in, and tissues swell and warm. This familiar sensation is known as 'delayed onset muscle soreness, or DOMS, and affects anyone who works out. Strange muscle contractions during which forces are applied to muscles as they lengthen, are the main causative factors. In general, this soreness is a good thing. Afterwards, the tissues rebuild themselves, becoming stronger and more flexible, a process known as adaptation.

77.What is the passage mainly about?

A) ~~The need for adequate rest~~ after working out

B) ~~The importance of exercise~~ on muscle growth

C) The ~~workings of different kinds of muscles~~

D) The way muscles react to stretching

E) ~~The danger of muscle soreness after exercise~~

77.Parçada esas olarak ne anlatılmaktadır?

A) Egzersiz yaptıktan sonra yeterli dinlenme ihtiyacı

B) Egzersizin kas büyümesi üzerindeki önemi

C) Farklı kas türlerinin işleyişi

D) Kasların gerilmeye tepki verme şekli

E) Egzersiz sonrası kas ağrısı tehlikesi

Various theories about the end of the Universe all concern the balance between the expansion of the Universe and the pull of gravity. EXPAND / ENLARGE

Evrenin sonuyla ilgili çeşitli teorilerin hepsi Evrenin genişlemesi ile yerçekimi arasındaki dengeyle ilgilidir.

In one scenario, gravity may not be strong enough to stop the Universe from expanding, **meaning it will continue to do so** forever.

do so: önce geçen eylemi yapmak

Bir senaryoya göre, yerçekimi Evren'in genişlemesini durduracak kadar güçlü olmayabilir, (Kİ) bu da sonsuza kadar **genişlemeye devam edeceği** anlamına gelir.

The Universe will become darker and colder.

Evren daha karanlık ve daha soğuk hale gelecektir.

Even black holes will evaporate as the Universe becomes an **endless and timeless void** where nothing ever happens.

This is called the 'Big Freeze'.

Evren hiçbir şeyin olmadığı sonsuz ve zamansız bir boşluğa dönüşürken kara delikler bile buharlaşacaktır.

Buna 'Büyük Donma' denir.

But, according to a second theory, if gravity is strong enough to overcome expansion, then the Universe will start **to contract** again.

CONTRACT: 1.büzülmek küçülmek shrink

2. temas etmek bulaşmak be exposed to, develop, catch a virus

Ancak, ikinci bir teoriye göre, eğer yerçekimi genişlemenin üstesinden gelecek kadar güçlüyse,(O ZAMAN) Evren tekrar **büzülmeye** başlayacaktır.

Eventually, it will collapse **on itself** to become a compact fireball.

The 'Big Crunch', **as it is called**, will swallow all matter and energy, as well as space and time.

Sonunda, **kendi üzerine** çökerek/ çöküp kompakt bir ateş topuna dönüşecektir. (olmak için çökecektir)!!!

'Büyük Çöküş' **olarak adlandırılan** bu olay, tüm madde ve enerjinin yanı sıra uzay ve zamanı da yutacaktır.

A third theory concerns / (is to do with/ is about)the mysteries of 'dark energy.

Üçüncü bir teori ise 'karanlık enerjinin' gizemleriyle ilgilidir.

Astronomers **have found that** the expansion of the Universe is actually speeding up due to dark energy, and if this acceleration continues, the expansion will overcome all the forces of nature.

Gökbilimciler Evren'in genişlemesinin aslında karanlık enerji nedeniyle hızlandığını ve bu hızlanma devam ederse, genişlemenin doğanın tüm güçlerinin üstesinden geleceğini **bulmuşlardır.**

The result will be the 'Big Rip.'

Sonuç 'Büyük Yırtılma' olacaktır.

All matter, and space-time itself, will be ripped apart and destroyed.

Tüm madde ve uzay-zamanın kendisi parçalanacak ve yok olacaktır.

Estimates say this could happen in/WITHIN about 22 billion years.

Tahminler bunun yaklaşık 22 milyar yıl içinde gerçekleşebileceğini söylüyor.

Various theories about the end of the Universe all concern the balance between the expansion of the Universe and the pull of gravity. In one scenario, gravity may not be strong enough to stop the Universe from expanding, meaning it will continue to do so forever. The Universe will become darker and colder. Even black holes will evaporate as the Universe becomes an endless and timeless void where nothing ever happens. This is called the 'Big Freeze'. But, according to a second theory, if gravity is strong enough to overcome expansion, then the Universe will start to contract again. Eventually, it will collapse on itself to become a compact fireball. The 'Big Crunch', as it is called, will swallow all matter and energy, as well as space and time. A third theory concerns the mysteries of 'dark energy. Astronomers have found that the expansion of the Universe is actually speeding up due to dark energy, and if this acceleration continues, the expansion will overcome all the forces of nature. The result will be the 'Big Rip.' All matter, and space-time itself, will be ripped apart and destroyed. Estimates say this could happen in about 22 billion years.

78.What are all of the hypotheses about the end of the Universe based on?

A) The relation between gravity and the increase in the size of the Universe

B) The ~~difference in temperature~~ between different parts of the Universe

C) The ~~continuation~~ of the expansion of the Universe

D) The ~~probability that the Universe may shrink~~

E) The ~~eventual decrease in the speed~~ of the expansion of the Universe

KELİME AVI YAPMA KONU ODAK TAKİBİ YAP !!!!

78.Evrenin sonuyla ilgili hipotezlerin tümü neye dayanmaktadır?

A) Yerçekimi ile Evrenin büyüklüğündeki artış arasındaki ilişki

B) Evrenin farklı bölümleri arasındaki sıcaklık farkı

C) Evrenin genişlemesinin devamı

D) Evrenin küçülme olasılığı

E) Evrenin genişleme hızındaki nihai azalma

Various theories about the end of the Universe all concern the balance between the expansion of the Universe and the pull of gravity. In one scenario, gravity may not be strong enough to stop the Universe from expanding, meaning it will continue to do so forever. The Universe will become darker and colder. Even black holes will evaporate as the Universe becomes an endless and timeless void where nothing ever happens. This is called the 'Big Freeze'. But, according to a second theory, if gravity is strong enough to overcome expansion, then the Universe will start to contract again. Eventually, it will collaps on itself to become a compact fireball. The 'Big Crunch', as it is called, will swallow all matter and energy, as well as space and time. A third theory concerns the mysteries of 'dark energy. Astronomers have found that the expansion of the Universe is actually speeding up due to dark energy, and if this acceleration continues, the expansion will overcome all the forces of nature. The result will be the 'Big Rip.' All matter, and space-time itself, will be ripped apart and destroyed. Estimates say this could happen in about 22 billion years.

79.According to the passage, which of the following is true about the end of the Universe?

A) ~~Despite the name 'Big Freeze', the Universe will actually heat up~~ in that scenario.

B) ~~Only black holes will be able to survive~~ the end of the Universe.

C) If the Universe ~~turns into a fireball, it will be due to its expansion.~~

D) The discovery of dark energy ~~rules out all the other theories.~~

E) Astronomers can calculate a probable time for the end of the Universe.

SAYISAL VERİ VE MİKTAR İFADELERİNDEN SORU GELEBİLİR

79.Parçaya göre, Evren'in sonu ile ilgili aşağıdakilerden hangisi doğrudur?

A) 'Büyük Donma' ismine rağmen, bu senaryoda Evren aslında ısınacaktır.

B) Evrenin sonunda sadece kara delikler hayatta kalabilecektir.

C) Eğer Evren bir ateş topuna dönüşürse, bu genişlemesinden kaynaklanacaktır.

D) Karanlık enerjinin keşfi diğer tüm teorileri geçersiz kılar.

E) Gökbilimciler Evren'in sonu için olası bir zaman hesaplayabilirler.

Various theories about the end of the Universe all concern the balance between the expansion of the Universe and the pull of gravity. In one scenario, gravity may not be strong enough to stop the Universe from expanding, meaning it will continue to do so forever. The Universe will become darker and colder. Even black holes will evaporate as the Universe becomes an endless and timeless void where nothing ever happens. This is called the 'Big Freeze'. But, according to a second theory, if gravity is strong enough to overcome expansion, then the Universe will start to contract again. Eventually, it will collaps on itself to become a compact fireball. The 'Big Crunch', as it is called, will swallow all matter and energy, as well as space and time. A third theory concerns the mysteries of 'dark energy. Astronomers have found that the expansion of the Universe is actually speeding up due to dark energy, and if this acceleration continues, the expansion will overcome all the forces of nature. The result will be the 'Big Rip.' All matter, and space-time itself, will be ripped apart and destroyed. Estimates say this could happen in about 22 billion years.

80. What is the main purpose of the author?

A) To warn the reader about the approaching end of the Universe

B) To inform the reader about different possibilities concerning the end of the Universe

LİSTELEME- SIRALAMA KURGUSU

C) To correct some misconceptions about the forces of nature that act upon the Universe

D) To explain the reason why astronomers cannot agree on one scenario

E) To highlight a new theory refuting other abstract classical theories

80. Yazarın temel amacı aşağıdakilerden hangisidir?

A) Evrenin yaklaşan sonu hakkında okuyucuyu uyarmak için

B) Evrenin sonuna ilişkin farklı olasılıklar hakkında okuyucuyu bilgilendirmek

C) Evrene etki eden doğa güçleri hakkındaki bazı yanlış anlamaları düzeltmek için

D) Astronomların neden tek bir senaryo üzerinde anlaşamadıklarını açıklamak

E) Diğer soyut klasik teorileri çürüten yeni bir teoriyi vurgulamak

CEVAP ANAHTARI

66. E
67. D
68. E
69. E
70. E
71. D
72. D
73. B
74. D
75. A
76. D
77. D
78. A
79. E
80. B