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Human Geography Text Book

متون جغرافیای انسانی به زبان خارجی ۱
(رشته جغرافیا)

نویسنده : مینو عسجدی

تهیه کننده : نسرين نیک اندیش

تعداد اسلاید: ۳۰۰

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Atmospheric Science



- General Aim

This lesson states several facts about the earth's atmospheric and its relation to weather and climate on the earth and teaches several common and key words in geography.

- هدف کلی:

در این درس مطالبی در مورد اتمسفر زمین و ارتباطش با هوا و اقلیم و چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



Atmospheric Science

- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 1.1.B and 1.1.C.
2. Define the meaning of the *common words* and do the exercises 1.2.A.
3. Define the meaning of the *key words* and do the exercises 1.3.A.



Atmospheric Science



4. Learn the function and meaning of the conjunctions *however* and *although*. Then do exercises 1.4.A.
5. Learn the use of relative pronouns *when* and *which* in a sentence. Then do exercises 1.5.A.
6. *Translate* the paragraph 1.6 into Persian.



Atmospheric Science



1.1.A. Pre- reading Questions

1. Do you think the *earth's atmospheric* is important? Why?
2. How is *weather* and the *atmosphere* related?
3. What is the *importance of climatology*?



Atmospheric Science



Common Words: Definition and exemplification

Component(n): member, part

جزء ترکیب دهنده

Depend on (v): count on, trust

بستگی داشتن

habitable(adj): fit to be live in

قابل سکونت ، قابل زیست

natural(adj): common, normal

طبیعی

Extent (n): degree, range

وسعت ، حد

create(v): make, build

خلق کردن ، آفریدن



Atmospheric Science



Common Words: Definition and exemplification

Area (n): field

محدوده ، سرزمین

divide (v): break, make into section

تقسیم کردن

concern (v): interest, be busy with

مربوط بودن

Motion (n): movement, wave

حرکت

Deal with (v): consider

مورد بحث قرار دادن

Condition (n): position state of things

شرایط ، وضعیت



Atmospheric Science



HUMAN
GEOGRAPHY

Common Words: Definition and exemplification

Specific (adj): exact, special

ویژہ ، مخصوص

location (n): place, point

موقع ، محل ، قرارگیری

Surface (n): outside of an object

سطح



Atmospheric Science



Key Words: Definition and exemplification

Atmosphere (n): gases around the earth

اتمسفر ، جو

Planet (n): one of the bodies which moves around the sun like earth

سیارہ

environment (n): condition, climate

محیط

Atmospheric science (n): a science which carefully studies the atmosphere

علوم جوی ، علوم
اتمسفری



Atmospheric Science



Key Words: Definition and exemplification

Forecast (v): say what will happen in weather

پیش بینی

Weather (n): condition of the environment in an area

ہوا

meteorology (n): science of the weather in a short period of time

ہواشناسی



Atmospheric Science



Key Words: Definition and exemplification

climatology (n): science of the weather in a longer period of time

اقلیم شناسی

Climate (n): weather condition of an area

آب و هوا ، اقلیم

Geography (n): science of the earth's surface

جغرافیا



Atmospheric Science



- Translate the following paragraphs

The earth's atmosphere is an important component of the planet's environment. Life on the earth depends on its atmosphere. If the earth had a different atmosphere, then it would not be the habitable place that is today. Therefore it is natural that the atmosphere has been carefully studied for many years. The extent of these studies has created an area of study which is called *atmospheric science*.



Atmospheric Science

جو زمین جزء مهم محیط سیاره است. زندگی بر روی زمین به جو آن بستگی دارد. اگر زمین جوی متفاوت می داشت، مانند امروز قابل سکونت نبود. بنابر این طبیعی است که جو زمین در سالهای زیادی بدقت مطالعه گردد. محدوده این مطالعات یک زمینه مطالعاتی موسوم به علوم جوی ایجاد نموده است.



Atmospheric Science



Climatology deals with atmospheric condition over a longer time period. It shows the changes in weather. Climate has a close relation to weather , therefore it is clearly part of meteorology. However climatology is also concerned with specific climatic conditions at different location on the earth's surface. Therefore it is also part of geography.



Atmospheric Science

اقلیم شناسی شرایط اتمسفر را در دوره زمانی طولانی تر بررسی می کند. این علم تغییرات هوا را نشان می دهد. اقلیم ارتباط نزدیکی با هوا دارد ، بنابر این بوضوح جزئی از هواشناسی است. بهر حال اقلیم شناسی همچنین شرایط ویژه اقلیمی در مکانهای متفاوت سطح زمین را بررسی می کند. بنابر این بخشی از جغرافیا می باشد.



Atmospheric Science



- 1.1.B. Comprehension

Read the following statements and based on the passage Atmospheric Science decide which are true (T) and which are false (F):

1. With a different atmosphere earth would still be the same.

2. Climatology tries to forecast weather.



Atmospheric Science



1.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. is a part of geography
 - A. Wind and rain
 - B. Meteorology
 - ✓C. Climatology
 - D. Weather in different days



Atmospheric Science



2. Atmospheric science is divided into two main area
- A. Weather and meteor
 - ✓ B. Climatology and meteorology
 - C. Weather and Climatology
 - D. Climate and weather



Atmospheric Science



1.2.A. Exercises

Fill in the blanks with the correct form of one of the following words.

Component, location, habitable, depend on, specific

1. His family **depends** only on his salary
2. I had a **specific** question to ask. **habitable**
3. A place with no water is not for human



Atmospheric Science



1.4. Grammatical points

Compare the following sentences:

A. I studied hard. I did not pass the exam.

B. Although I studied hard , I did not pass the exam.

C. I studied hard , however I did not pass the exam.



Atmospheric Science

در مثال A دو جمله ساده که به نوعی با یکدیگر در تضاد می باشند آمده است. در دو مثال B و C همان دو جمله با استفاده از حروف ربط *however* و *Although* با یکدیگر ترکیب شده اند و تشکیل یک جمله را داده اند. ای دو جمله معنای متضاد مثال A را در خود حفظ کرده است.



Atmospheric Science



1.4.A. Exercises

Use *although* and *however* for the following exercises.

1. The weather is sunny. The degree shows below zero.

Although the weather was sunny , it was quite cold.

2. The earth seems to be flat. The earth is really round.

The earth seems to be flat , *however* it is really round.



Atmospheric Science



1.5. Grammatical points

Compare the following sentences:

1.A. The earth is round. The earth can be measured in terms of degree.

1.B. The earth which is round can be measured in terms of degree.

2.A. The man is sitting. He is my teacher.

2.B. The man who is sitting is my teacher.



Atmospheric Science



در هر کدام از مثالهای 1.A و 1.B دو جمله ساده آمده است. در هر دو مثال جمله ها به یکدیگر مربوط و در مورد موضوعی یکسان و یا انجام کارهایی در زمانی یکسان صحبت می کنند. در مثالهای 2.A و 2.B این جملات با استفاده از ضمائر ربطی *who* و *which* با یکدیگر ترکیب شده اند و جملات واحدی را تشکیل داده اند.



Atmospheric Science



1.5.A. Exercises

Use *which* and *who* for the following exercises.

1. We went to see a movie. The movie was very interesting.

The movie *which* we went to see was very interesting.

2. I called my friend. She is a doctor.
I called my friend *who* is a doctor.



Solar Energy

- General Aim

This lesson introduces the *solar energy* and states the process through which it reaches the surface of the earth and teaches several common and key words in geography.

- هدف کلی:

این درس با مطالبی در مورد انرژی خورشیدی آغاز گردیده و فرآیندی که انرژی به سطح زمین می رسد را بیان می کند. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



Solar Energy



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 2.1.B and 2.1.C.
2. Define the meaning of the *common words* and do the exercises 2.2.
3. Define the meaning of the *key words* and do the exercises 2.3.



Solar Energy



4. Learn the use and omission of the relative pronouns in a sentence. Then do exercises 2.4.A.
5. Learn the meaning and use of adverbs *also* and *too*. Then do exercises 2.5.A.
6. *Translate* the paragraph 2.6 into Persian.



Solar Energy



2.1.A. Pre- reading Questions

1. Do you think that we need to replace *oil* as main source of energy with another source?
2. What dose *atmosphere* do to the sun rays when they reach the earth?
3. Do you think the use of *solar energy* is possible and practical?



Solar Energy



Common Words: Definition and exemplification

Crisis (n): time of difficulty, problem

بحران

source (n): beginning, root

منبع ، منشاء ، مبداء

Supplement (v): add later to complete or make better

تکمیل کردن

replace (v): come in place of something else

جایگزین کردن ،
جانشین شدن



Solar Energy



Common Words: Definition and exemplification

Distribution (n): condition of giving or sending out

پراکندگی ، توزیع

throughout (adv): during the whole time and action

سراسر ، تماماً ، در سرتاسر

determine (v): be the fact that decides

تعیین کردن ، معلوم کردن

Receive (v): accept, get

دریافت کردن ، قبول کردن



Solar Energy



Common Words: Definition and exemplification

Flow (n): coming, current

جریان ، جاری ، روانی

modify (v): make changes in,
make different

تغییر دادن ، اصلاح کردن ،
مناسب کردن

particle (n): very small bit, piece

خرده ، ریزه ، ذرات

Dense (adj): thick

انبوه ، متراکم

absorb (v): take in, suck in

جذب کردن ، مکیدن



Solar Energy



Key Words: Definition and exemplification

Energy (n): power

انرژی ، نیرو

Tilt (n): sloping position

کجی ، انحراف

horizon (n): the line at which the earth and sea or sky seem to meet

افق

solar (adj): of the sun

خورشیدی ، شمسی



Solar Energy

2.2.A. Exercises

Fill in the blanks with the correct form of one of the following words.

Crisis , supplement , source , replace , distribution , throughout

1. Oil is the main **source** of energy
2. The use of heating oil is being **supplement** by gas in Iran.
3. The political **crisis** In Iran led to



Solar Energy



Key Words: Definition and exemplification

radiation): sending out of energy , heat and etc. in rays

Ray (n): beam

Solar energy collection (n): a place in which energy of sun is received and kept.

تشعشع ، پرتو افکنی
، تابش
شعاع ، پرتو

مرکز جذب و
نگهداری انرژی



Solar Energy

- Translate the following paragraphs
 1. In this century, *energy crisis* has led to a search for different kinds of energy sources. Scientists are trying to find a source which might *supplement*, or even *replace oil* as the main energy sources which has attracted scientist's attention. However, the distribution of *solar energy* have several aspects



Solar Energy

در قرن حاضر ، بحران انرژی به تحقیق در مورد انواع مختلف منابع انرژی منتهی گردیده است. دانشمندان در حال تلاش برای یافتن منبعی می باشند که ممکن است مکمل نفت و یا حتی جایگزین آن بعنوان منبع اصلی انرژی باشد. انرژی خورشیدی یکی از منابعی است که توجه دانشمندان را جلب کرده است. در هر حال انرژی خورشیدی به چند طریق توزیع می گردد.



Solar Energy



2. Secondly, the gases around the earth control the flow of solar energy to the surface of the earth. When the sun's rays pass into upper parts of the atmosphere, they are not modified very much. After passing further into the atmosphere, the solar beam reaches parts in which gases and particles are dense. The dense parts modify the flow of the sun's rays .



Solar Energy

۲. دوم اینکه گازهای اطراف زمین جریان انرژی خورشیدی به سطح زمین را کنترل می کنند. زمانی که اشعه خورشید از بخشهای فوقانی جو می گذرد ، زیاد تغییر نمی کنند. پس از عبور بیشتر از جو ، اشعه خورشید به بخشهایی می رسد که گازها و ذرات متراکم گردیده اند. بخشهای متراکم مزبور جریان تشعشع خورشیدی را تغییر می دهند.



Solar Energy

- 2.1.B. Comprehension

Read the following statements and based on the passage Solar Energy decide which are true (T) and which are false (F):

1. Solar energy is the main energy source in this age. F
2. The flow of solar energy to the surface of the earth is controlled. T
3. Scientists have different views about using the solar energy T



Solar Energy

2.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. However in the first paragraph can be replaced by
 - A. therefore
 - ✓ B. although
 - C. thus
 - D. then



Solar Energy

2. The flow of solar energy is more modified by the

A. Clouds in the sky

B. Thin parts of the atmosphere

✓ C. Dense parts of the atmosphere

D. All of the above



Solar Energy

2.4. Grammatical points

Compare the following sentences:

1.A. I give him geography book. He wanted the geography book.

1.B. I give him the geography book which he wanted .

1.C. I give him the geography book he wanted .



Solar Energy

2.A. You spoke to a man. The man was a geologist.

2.B. The man whom you spoke to was a geologist

1.C. The man you spoke to was a geologist .

چنانچه در درس قبل خواندیم ، در مثالهای 2.B و 1.B دو جمله با استفاده از ضمائر ربطی ترکیب شده اند. در مثالهای 2.C و 1.C می بینیم که ضمائر ربطی جمله ها حذف شده اند. این حذف تنها در زمانی امکان پذیر است که ضمیر ربطی در ارتباط با مفعول جمله بکار رفته باشد.



Solar Energy



2.4.A. Exercises

Combine the following sentences first with relative pronouns and then without them.

1. You can telephone the people. you told me about the people.

You can telephone the people whom you told me about.

You can telephone the people you told me about.

2. There is the bus. I usually take that bus to go home.

There is the bus which I usually take to go home.

There is the bus I usually take to go home.



Solar Energy

2.5. Grammatical points

Compare the following sentences:

- 1.A. The tilt in the earth's axis also changes the lengths of day and night.
- 1.B. The tilt in the earth's axis changes the lengths of day and night too.
- 2.A. The coffee is too hot.
- 2.B. The coffee is so hot that I can't drink.



Solar Energy

همانطور که در مثالهای 1.A و 1.B می بینیم ، حرف اضافه *too* و قید *also* در معنای مشابه بکار می روند. در این صورت *too* همیشه در آخر جمله قرار می گیرد. *too* معنای دیگری نیز دارد که “ بیش از حد ، زیاد از اندازه ” است. در این صورت *too* دارای معنای منفی است که معمولاً قبل از صفت قرار می گیرد.



Solar Energy



2.5.A. Exercises

Fill in the blanks in each sentence with writing either Also or Too. Be careful the different meaning of Too.

1. Yazd is located near the desert ...**too**
2. Will you **also**...take my books to the library
3. He run away **too**. fast , and I couldn't reach him.
4. Last night , Johan made dinner and **also** washed the dishes.



Wind



- General Aim

This lesson defines the phenomena of wind and mentions few facts about local wind and teaches several common and key words in geography.

- هدف کلی:

این درس پدیده باد را تعریف کرده و مطالبی را در بادهای محلی بیان می‌کند. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



Wind

- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 3.1.B and 3.1.C.
2. Define the meaning of the *common words* and do the exercises 3.2.
3. Define the meaning of the *key words* and do the exercises 3.3.



Wind

4. Learn the function of the connectives "*and* " and "*as well as*". Then do exercises 3.4.A.
5. Learn the formation and use of *participles* and *adjective*. Then do exercises 3.5.A.
6. *Translate* the paragraph 3.6 into Persian.



Solar Energy



3.1.A. Pre- reading Questions

1. Do you know how winds are created?
2. What are local winds?
3. How do you think winds can be helpful?



Solar Energy



Common Words: Definition and exemplification

Current (n): flow, stream

جریان

vary (v): differ, be different

مختلف بودن ، فرق داشتن

Motion (n): movement

حرکت ، جنبش

scale (n): system of measurement

میزان ، مقیاس

asset (n): wealth

دارایی



Wind



Common Words: Definition and exemplification

Approach (n): an act of approaching or viewing something

برخورد، نظر، نگرش

name (v): call, give a name

نامگذاری کردن ، اسم گذاشتن

attribute (v): consider as a quality of , coming from

نسبت دادن ، دانستن از

Particular (adj): specific, special

خاص ، ویژه



Wind

Common Words: Definition and exemplification

Occur (v): happen

اتفاق افتادن

combine (v): join, come together

ترکیب کردن

direction (n): way , path

جهت ، مسیر

characteristic (n): special mark
or quality , aspect

ویژگیها ، مشخصات

descending (adj): falling ,
coming or going down

درحال پایین آمدن ، درحال
نزول



Wind

Common Words: Definition and exemplification

relate (v): connect

ربط دادن ، مربوط ساختن

established (adj): settle

تثبیت شده ، مستقر شده

effect (n): result , influence

تأثیر

blow (v): flow as a current of air

وزیدن

damage (n): destroy , harm that causes loss of value

خسارت ، زیان



HUMAN
GEOGRAPHY

Wind

Common Words: Definition and exemplification

Warm up (v): make warm

گرم شدن ، گرم کردن

melt (v): make into water or liquid

آب شدن

farming (n): growing plants

کشاورزی

accumulation (n): collecting , piling

تجمع ، گرد آوری



Wind

Key Words: Definition and exemplification

Light air (n): the movement of air which causes the smoke go up

باد آرام

Hurricane (n): very strong and violent wind storm

باد بسیار شدید ، طوفان

Air mass (n): large body of air

توده هوا

Local winds (n): winds occurring in a particular area

بادهای محلی



Wind

Key Words: Definition and exemplification

Synoptic weather pattern (n):
certain common characteristics of
weather in a moment of time

وضعیت
سینوپتیکی هوا

topography (n): the description of
the surface features of any area
which has both natural and human
origin

نقشه برداری ،
موضع نگاری



Wind

Key Words: Definition and exemplification

Adiabatic (adj): changing the temperature of a mass of gas which is being cooled (compressed) or heated (expansion) without actual loss or gain of heat from outside

erosion (n): the state of being of destroyed

پدیده های بی در
رو (سرد شدن
یا گرم شدن بی
در رو)

فرسایش



Wind



2.2.A. Exercises

Fill in the blanks with the correct form of one of the following words.

Light air , hurricane , local wind , synoptic weather pattern , adiabatic , erosion , topography

1. The study of the surface of the earth is called ..**topography**..
2. Every part of the world might have its own **Local wind**..
3. **Hurricane** is the strongest kind of wind.



Wind



- Translate the following paragraphs
1. In recent years , scientists have become interested in the use of *wind* as an energy source. Such an interest has been the most recent approach in the long history of human understanding of wind. This history is perhaps best shown by the way in which people throughout the world have named and attributed many things to what are *local winds* . Local winds are the winds that occur when a particular *synoptic weather pattern* combine with *local topography*.



Wind

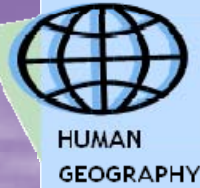


۱. درسالهای اخیر دانشمندان به کاربرد باد بعنوان یک منبع انرژی علاقه مند شده اند. چنین علاقه ای تازه ترین نگرش در تاریخ طولانی بشر از درک باد بوده است. شاید این تاریخ بدین نحو که مردم سراسر جهان بسیاری از چیزها را به بادهای محلی نامیده یا نسبت داده اند ، به بهترین شکل نشان داده شود. بادهای محلی بادهایی هستند که زمانی که الگوی سینوپتیکی آب و هوایی ویژه ای با شرایط توپوگرافی محلی جمع شوند ، رخ می دهند.



Wind

2. The local winds have good and bad effect. A local wind which blows strongly can cause serious damage. However , a local wind such as Schneefresser in the Alp area warms up the weather and melts the snow which is good for farming. Although winds in general have affects in creating landscapes , physical geographers do not believe that a landform can only be created by wind erosion. However there is no doubt that winds play an important role in removal and accumulation of material.



Wind

۲. بادهای محلی اثرات خوب و بد دارند. یک باد محلی که بطور شدید می وزد ، می تواند سبب خسارت جدی گردد. در هر حال یک باد محلی مانند / سکنی فرسر در منطقه آلپ هوا را گرم نموده و برف را ذوب می کند که برای کشاورزی سودمند است. گرچه بطور کلی بادهای در خلق چشم اندازها مؤثر می باشند ، جغرافیدانان طبیعی اعتقاد ندارند که یک چشم انداز فقط از طریق فرسایش بادی خلق شده باشد. در هر حال شکی نیست که بادهای نقش مهمی را در انتقال و تراکم مواد ایفا می کنند.



Wind



- 3.1.B. Comprehension

Read the following statements and based on the passage Wind decide which are true (T) and which are false (F):

1. Local winds are particular to certain area. T
2. Winds have only bad effects on natural and human life. F
3. Hurricane is a kind of winds T



Wind



3.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. The local winds near Mediterranean sea
- A. Relates air to synopsis
 - B. Join a synoptic pattern with a cold air mass
 - ✓C. Join a specific synoptic pattern with air flow
 - D. None of the above



Wind



2. Geographers believe that wind

A. is the only cause for soil erosion

B. causes erosion in a particular topographical area

✓ C. helps the erosion of land

D. has no role in erosion



Wind



2.4. Grammatical points

Compare the following sentences:

- A. Wind can be a problem. Wind can be an asset.
- B. Wind can be a problem as well as an asset.
- C. Wind can be a problem and rain can be an asset.



Wind

در مثال A دو جمله مجزا که دارای قسمت های مشترکی هستند مشاهده می کنید. در مثال های C و B این دو جمله توسط حروف ربط *as well as* و *and* تشکیل یک جمله واحد را داده اند. در مثال D دو جمله مجزا توسط یک حرف ربط *and* با هم ترکیب شده اند و جمله ای مرکب از دو فعل و فاعل درست کرده است.

حرف ربط *as well as* تنها قسمتهایی از یک جمله را به ربط می دهد. حرف ربط *and* می قسمتهایی از یک جمله را به ربط می دهد و یا همچنین دو جمله مستقل را با هم ترکیب کند و جمله ای مرکب بسازد.



Wind



3.4.A. Exercises

Use "and" and "as well as" to combine the given sentences.

1. Laugh! The world laughs with you.

Laugh and the world laughs with you.

2. Local winds have particular speed. Local winds have particular direction.

Local winds have particular speed and direction.

3. She is intelligent. She is hard working

She is intelligent as well as hard working



Wind



3.5. Grammatical points

Look at the following sentences:

1.A. Adventure movies excite them

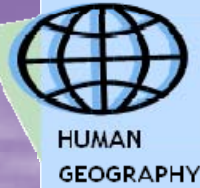
2.A. The movie was very exciting.

3.A. The excited friends spoke very loudly.

1.B. Lois has pleased her mother bu finishing her master's program.

2.B. Lois was very happy to see her mother's pleased face.

3.B. Lois's mother has a pleasing face.

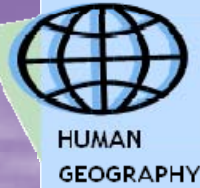


Wind

در مثالهای 2.A/3.A و 2.B.3.B می بینیم دو فعل *excite* و *please* در مثالهای 1.A و 1.B با تبدیل به قسمت سوم فعل و یا افزودن *ing* صفت‌های فعلی شده اند. همانطور که در مثالها می بینیم ، دو صفت فعلی – اگرچه هر دو از یک فعل درست شده باشند- در جمله گاه از نظر موصوف و گاه از نظر معنا با یکدیگر تفاوت دارند.



Wind



3.5.A. Exercises

Fill in the blanks using the correct participle from of each verb in parenthesis.

1. He did not answer that **embarrassing**..... question. (embarrass)
2. Our teacher always gives.....**encouraging** comments about our homework . (encourage)
3. At the age of 20 , he is a **grown**..... person. (grow)
4. He comes from a **distinguished**..... Family. (distinguish)



Hydrological Cycle

- General Aim

This lesson gives you an introduction on exchange of water on the surface of earth and mentions a few kinds of precipitation and teaches several common and key words in geography.

- هدف کلی:

این درس مقدمه ای در مورد تبادل آب بر سطح زمین به شما ارائه داده و انواع بارش را ذکر می نماید. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



Hydrological Cycle

- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 4.1.B and 4.1.C.
2. Define the meaning of the *common words* and do the exercises 4.2.
3. Define the meaning of the *key words* and do the exercises 4.3.



Hydrological Cycle

4. Learn one kind of conditional sentences.
Then do exercises 4.4.A.
5. Learn the formation some English nouns.
Then do exercises 4.5.A.
6. *Translate* the paragraph 4.6 into Persian.



Hydrological Cycle

3.1.A. Pre- reading Questions

1. Do you know what is precipitation?
2. How snow is formed?
3. Do you think warm air has more moisture or cold air?



Hydrological Cycle



Common Words: Definition and exemplification

exchange (n): trading , giving or receiving

تبادل

deliver (v): pass , transfer

تحويل دادن

liquid (adj & n): substance like water or oil that flows freely

مايع

vapor (n): steam, mist

بخار



Hydrological Cycle

Common Words: Definition and exemplification

solid (adj & n): not in form of gas
or liquid, hard

جامد

contact (n): near , close ,
have communication

تماس ، برخورد ، مجاورت

rate (n): degree , measure

میزان ، اندازه

enter (v): to come in

وارد شدن



Hydrological Cycle



Common Words: Definition and exemplification

continue (v): carry on

ادامه دادن

eventually (adv): finally , coming at last as result

عاقبت ، بالاخره

drain (v): empty , decrease

کشیدن ، تخلیه کردن

carry (v): take, support the weight of and move it from place to place

حمل کردن



Hydrological Cycle

Common Words: Definition and exemplification

World - wide (adj): all parts of the world

جهانی

deep (adj) deeper , deepest: going the most way from the top

عمیق

freeze (v): be so cold that water turns to ice

یخ زدن ، منجمد شدن



Hydrological Cycle

Common Words: Definition and exemplification

consist (v): include , contain

شامل بودن

lump (n): piece , chunk usually
without a regular shape

تکه ، گره ، مانند کلوخه

internal (adj): inner , inside

داخلی

structure (n): building
formation, design

ساخت ، ساختمان



Hydrological Cycle

Common Words: Definition and exemplification

layer (n): film, covering

لایه

Onion (n): a vegetable plant with round bulb of many coats or layers

پیاز

suitable (adj): fit, appropriate

مناسب

influence (v): effect , have affect

تأثیر گذاشتن بر ،
نفوذ کردن بر



Hydrological Cycle



Common Words: Definition and exemplification

common (n): normal, regular

عادی ، رایج

harmful (adj): damaging , not useful

مضر ، زیان آور

delay (v): make slow and late

تأخیر کردن ، تأخیر
انداختن ، طولانی کردن

Spread over (v): become more widely extended

پخش شدن روی



Hydrological Cycle

Common Words: Definition and exemplification

mention (v): speak or write
about something

ذکر کردن

pellet (n): small ball of something
soft

گلوله ، به شکل گلوله

agriculture (n): farming

کشاورزی



Hydrological Cycle



HUMAN
GEOGRAPHY

Key Words: Definition and exemplification

Hydrological cycle (n): the endless interchange of water between the sea , air and land

چرخہ آب شناسی

moisture (n): state of being damp, humidity

رطوبت

evaporation (n): a process by which a liquid is changed into a gas

تبخیر



Hydrological Cycle



Key Words: Definition and exemplification

condense (v): to become thicker

متراکم شدن

precipitation (n): fall of rain , hail ,
snow or sleet

بارندگی

soil (n): dirt , dust , sand

خاک

ocean (n): huge sea , great body of
water that surround the land

اقیانوس



Hydrological Cycle



Key Words: Definition and exemplification

Circulation system (n):
hydrological cycle

نظام گردش

continent (n): one of
the main land masses

قاره

cloud (n): a mass of tiny particles
usually of water or ice

ابر



Hydrological Cycle

Key Words: Definition and exemplification

rain (n): condensed
moisture of atmosphere
falling in drops

باران

sleet (n): falling rain
mixed with ice

اسلٹ ، لہ برف

snow (n): a type of precipitation
which had been frozen and then
partly melted

برف



Hydrological Cycle

Key Words: Definition and exemplification

Ice crystal (n): pieces of natural and clear ice

کریستال یخ ، بلور یخ

Hail (n): frozen ice drops from falling cumulonimbus cloud

تگرگ

cumulonimbus (n): a kind of cloud which causes thunderstorm and hail

ابر کومولو نیمبوس



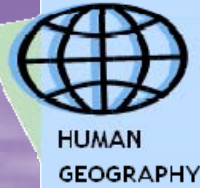
Hydrological Cycle

1.4.A. Exercises

Fill in the blanks with the correct form of one of the following words.

Hydrological cycle , moisture , evaporation , precipitation , ocean , hail , condense

1. Precipitation is caused by the **condense**..
Of moisture in the air.
2. heat **evaporates**.. water
3. **Hail** stones can be in different sizes.



Hydrological Cycle

- Translate the following paragraphs
 1. The various exchange of water on the surface of the earth can be shown by the *hydrological cycle*. The *water of oceans* and the air of the atmosphere combine to deliver great amount of moisture to the land in a system called the *hydrological cycle*. The *hydrologic system* would not exist if water could not change from the *liquid* form to the *vapor* form and again to the liquid form or to *solid* form such as *ice*.



Hydrological Cycle

۱. تبادل متنوع آب بر سطح زمین از طریق چرخه آب شناسی نشان داده می شود. آب اقیانوسها و هوای اتمسفر جمع گردیده تا مقدار زیادی بخار آب در سیستمی بنام چرخه آب شناسی به زمین تحویل دهند. اگر آب نمی توانست از حالت مایع به بخار و دوباره به مایع یا جامد نظیر یخ تغییر شکل دهد ، سیستم آب شناسی وجود نمی داشت.



Hydrological Cycle

2. Precipitation from clouds can take different forms. It can fall as rain when in the water form or in a variety of forms when in *solid form*. The solid form has *three* kinds:

Sleet: is small *ice pellet* that are made when falling rain freezes as it passes through cold air

Snow: consist of ice crystals made directly by condensation of water vapor in clouds that are below freezing.

Hail: is *round lump of ice*



Hydrological Cycle

۲. بارش از ابرها به اشکال مختلف نازل می گردد. بارش می تواند زمانی که بشکل مایع است بصورت باران و زمانی که به شکل جامد است به اشکال متنوع دیگر فرود آید. شکل جامد دارای سه نوع می باشد:

اسلیت (له برف) گلوله های کوچک یخ می باشد که از بارانی تشکیل شده است که زمانی که از میان هوای سرد عبور می کند، یخ می زند.

برف شامل بلورهای یخی است که مستقیماً از تراکم بخار آب در ابرهای زیر نقطه انجماد تشکیل شده است.

تگرگ: گلوله های مدور یخ می باشد.



Hydrological Cycle

- 4.1.B. Comprehension

Read the following statements and based on the passage *Hydrological Cycle* decide which are true (T) and which are false (F):

1. Water can change to vapor T
2. Evaporation takes place only in the very hot weather. F
3. Hail is found in all kinds of clouds F



Hydrological Cycle

4.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. Hydrological system exists because

A. Water changes to solid form.

B. Water can change to solid and vapor form

C. Solid and vapor form of water can change to liquid form

✓ D. B & C



Hydrological Cycle

2. The most common precipitation is

- A. snow
- ✓ B. rain
- C. hail
- D. Ice pellet

3. rain is theform of precipitation

- A. Solid
- ✓ B. Liquid
- C. Gas
- D. vapor



Hydrological Cycle

1.5. Grammatical points

Look at the following sentences:

A.1. *If water could not change from the liquid form to the vapor form and solid form and vice versa, the hydrologic system would not exist.*

A.2. The hydrologic system would not exist , If water could not change from the liquid form to the vapor form and solid form and vice versa.

B.1. *If I had studied hard, I would pass the exam.*



Hydrological Cycle

B.2. I would pass the exam , if I had studied hard.

C.1. *If I were rich* , I would buy a new car.

C.2. I would buy a new car, if I were rich

مثالهای B.1 , C.1. و A.1 نشانگر نوع دوم جمله های شرطی می باشند که در آنها یک موقعیت فرضی بیان شده است. زمان این نوع جمله ها گذشته می باشد. این نوع از جمله های شرطی می توانند برای موقعیتی فرضی در زمان حال ، گذشته و آینده استفاده شوند.



Hydrological Cycle

1.5.A. Exercises

complete the following conditional sentences.

1. She **would understand** the answer , if she asked. (understand)
2. Browns would go to movies,..... **if** they **had** time. (have)
3. If my parents were here , I **would become**.....very happy. (become)



Hydrological Cycle

2.5. Grammatical points

Compare the following words:

- | | |
|------------------|-----------------|
| A. Examine (v) | Examination (n) |
| B. Explode (v) | Explosion (n) |
| C. Produce (v) | Production (n) |
| D. Recognize (v) | Recognition (n) |



Hydrological Cycle

در مثالهای بالا شکل اسمی کلمات با اضافه کردن پسوندهای *ation*, *sion*, *tion*, *ion* به فعل یا بخشی از فعل ساخته شده است. پسوندهای اسم ساز دیگری نیز وجود دارند.



Hydrological Cycle

2.5.A. Exercises

Use the proper noun from to complete the following sentences.

1. She did not according to my **expectation**....
(expect)
2. To my **satisfaction** my father sent me a
cheach! . (satisfy)
3. To understand each other better , people need
to have better **communication**....(communicate)
4. I was surprised to see the child's strong
imagination....(imagine)



Soil

- General Aim

This lesson briefly describes the factors of soil formation and role each factor plays and teaches several common and key words in geography.

- هدف کلی:

این درس بطور مختصر عوامل مؤثر در تشکیل خاک را شرح می دهد. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



Soil



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 5.1.B and 5.1.C.
2. Define the meaning of the *common words* and do the exercises 5.2.
3. Define the meaning of the *key words* and do the exercises 5.3.



Soil

4. Learn different kinds of suffixes which make objectives. Then do exercises 5.4.A.
5. Learn the indefinite pronouns other , another , the other, others. Then do exercises 5.5.A.
6. *Translate* the paragraph 5.6 into Persian.



Soil

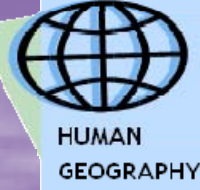


5.1.A. Pre- reading Questions

1. What do you think is the most important factor in soil development? why?
2. What is sedentary parent material?
3. Do you think that human influence the process of soil formation in any way?
4. What is the importance of time in the development of a soil?



Soil



Common Words: Definition and exemplification

chemical (adj): made by chemistry

شیمیایی

physical (adj): of material things
, of body , of features of world

فیزیکی

process (n): connected series of
actions. changes

عمل آوری ، طی
مراحل تکامل

formation (n): developing , an act
of forming or shaping

سازند ، تشکیلات



Soil



Common Words: Definition and exemplification

develop (v): to form

توسعه یافتن ، ظهور

nutrient (adj): serving as or providing nourishment

مواد مغذی ، از لحاظ غذایی
مقوی

decompose (v): break down ,
separate into its parts

تجزیه شدن (کردن) ،
پوساندن

Organic (adj): related to living
organism and their remains

آلی ، مواد آلی



Soil



Common Words: Definition and exemplification

excess (n): too much , more than
enough

مازاد ، زیادی

decay (n): spoil , go bad , loose
power and health

فساد

matter (n): material , element

ماده

permanent (n): constant .
lasting

دائمی ، پایدار



Soil



Common Words: Definition and exemplification

Discharge (v): give or send out

تخلیه کردن

breathe (v) take air into lungs and then send it out

تنفس کردن

pore (n): opening

روزنه ، منفذ

mature (n): grown , developed

بالغ ، کامل



Soil



Common Words: Definition and exemplification

underlying (adj): being under or beneath something

زیرین

bury (v): place underground , cover with earth

دفن شدن

Steep (adj): rising or falling sharply

شیب دار ، شیب تند

slope (n): position at an angle , area of rising or falling land

سراشیب



Soil

Common Words: Definition and exemplification

apply (v): relate to , refer to ربط دادن ، اعمال کردن

Opposite (adj): vise- versa, on the contrary مخالف

biological (adj): related to the science of life and living things زیست شناسانه ، وابسته به زیست شناسی

Indonesian (adj): of ndonesia اندونزیایی



Soil



Common Words: Definition and exemplification

explode (v): burst with a loud noise

منفجر شدن

irrigate (v): supply with water ,
gave water

آبیاری

fertilize (v): made fertile and
productive

بارور کردن ، کود دادن

promote (v): increase , further ,
elevate

ترفیع دادن ، بالا بردن



Soil

Key Words: Definition and exemplification

Rock (n): solid stony part of the earth, large stone

صخره ، سنگ بزرگ

Weather (v): to be exposed to the weather, become worn by weather

وضعیت هوا ، در
معرض هوا قرار
گرفتن

pedology (n): the science dealing with soil

خاک شناسی



Soil



Key Words: Definition and exemplification

Vegetation (n): plants covering a land ، پوشش گیاهی ، پوشش نباتی

mineral (n): substance got from the earth by mining معدنی

bedrock (n): the solid underlying surface materials سنگ بستر

Parent material (n): basic elements عناصر بنیادی



Soil



Key Words: Definition and exemplification

Granite (n): hard and usually gray stone used for building

گرانیت

sedimentary (adj): containing sediment , formed by or form deposits of sediment

رسوبی

Sedentary Parent material (n): permanently sitting parent material

بنیادی

عناصر

رسوبی



Soil



Key Words: Definition and exemplification

regime (n): set of rules for diet , exercise and etc.

رژیم

volcano (n): hill or mountain with opening through which gases , lava , ashes

آتش فشان

lava (n): fluid rock coming from volcano

گدازه ، مواد مذاب
آتشفشانی



Soil



5.3. Exercises

Fill in the blanks with the correct form of one of the following words.

Rock , weathered , pedology, vegetation , mineral
, bedrock, regime, volcano

1. In the desert there is no sign of **vegetation**
2. **Weathered** mineral usually are removed by erosion
3. **Mineral** springs usually have salt and iron.



Soil

- Translate the following paragraphs

1. The study of soils is the science of pedology which is taken from a Greek word meaning ground. Pedology studies different layers of soil. The formation of a mature soil depends on a number of conditions. The mineral in the underlying bedrock strongly influence the kind of soil that will develop. These mineral are called the parent material of the soil. There are two kind of parent material .The first kind is the permanent bedrock such as an area of granite or an area of eroded sedimentary rock. Weathering of these rocks created a soil that contains elements taken from them, so that we may describe the parent material as sedentary.



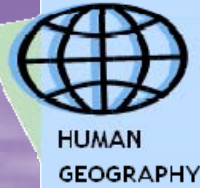
Soil

مطالعه خاکها در علم پدولوژی که واژه یونانی به معنی زمین است قرار می گیرد. پدولوژی لایه های مختلف خاک را بررسی می کند. تشکیل یک خاک بالغ و کامل به شرایط چندی بستگی دارد. مواد معدنی در سنگ بستر زیرین شدیداً نوع خاکی را که در آینده تکامل خواهد یافت را متأثر می سازند. این مواد معدنی مواد معدنی بنیادی خاک نامیده می شوند. دو نوع مواد بنیادی وجود دارد. نوع اول سنگ بستر دائمی مانند منطقه ای از گرانیت یا منطقه ای از سنگهای رسوبی فرسایش یافته می باشد. هوازدگی این سنگها خاکی را ایجاد می کند که عناصر گرفته شده از آنها را دربر می گیرد ، بطوری که ممکن است ما مواد بنیادی مزبور را بعنوان رسوبی (ته نشین شده) شرح دهیم.



Soil

2. Soil also requires time for development but soils in colder environments need more time than soils in hot and humid areas. After an Indonesian volcano exploded in 1883 and huge amounts of lava covered the land, the soil took only 45 years to develop on the new rock. This soil formed under equatorial conditions. However the full development of soil in higher latitudes take thousands of years. The other factor which should be mentioned in soil development is the human factor. Through agriculture, soil irrigated and fertilized and therefore. Many modifications occur. Today, these modifications affect the soil development in major area of the world.



Soil

۲. همچنین خاک جهت تکامل به زمان احتیاج دارد ، اما خاکها در محیط های سردتر نسبت به محیطهای گرم و مرطوب به زمان بیشتری نیاز دارند. پس از اینکه آتشفشان اندونزیایی در سال ۱۸۸۳ منفجر شد و مواد آتشفشانی زیادی سطح زمین را پوشاند، خاک فقط در ۴۵ سال بر روی سنگهای جدید تکامل یافت. این خاک تحت شرایط استوایی تکامل یافته است. بهر حال تکامل کامل خاکها در عرضهای بالاتر هزاران سال طول می کشد. عامل دیگری که در تکامل خاک می بایست ذکر گردد ف عامل انسان است. طی کشاورزی خاک آبیاری و کود دهی می گردد و بنابر این تغییراتی رخ می دهد. امروزه اینگونه تغییرات تکامل خاک را در مناطق عمده جهان متأثر می سازند.



Soil



- 5.1.B. Comprehension

Read the following statements and based on the passage *soil* decide which are true (T) and which are false (F):

1. Soil forms much faster in humid and warm areas T
2. Pedology is the science of nutrients of the earth. T
3. Agricultural influences the soil formation process. T



Soil

5.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. Soil breathes

A. By its surface.

B. By its material

✓ C. Through its pores

D. Through its water



Soil

2. pedology is the science of
 - A. Children and their behavior
 - B. Soil formation
 - C. Parent material
 - ✓ D. Layers of soil
3. The only factor which does not play a role in soil formation process is
 - A. time
 - B. Parent material
 - C. heat
 - ✓ D. cold



Soil



5.4. Grammatical points

Compare the following set of words:

A. Organism (n)	Organic (adj)
B. Chemistry (n)	Chemical (adj)
C. Physics (n)	Physical (adj)
D. Sedimentation (n)	Sedimentary (adj)
E. Care (v)	Careful (adj)
F. Iran (n)	Iranian (adj)
G. Danger (n)	Dangerous (adj)
H. Excess (n)	Excessive (adj)
I. Honor (v)	Honorable (adj)
J. Gold (n)	Golden (adj)
K. Friend (n)	Friendly (adj)
L. Wind (n)	Windy (adj)



Soil

همانطور که در مثالهای بالا می بینیم، با اضافه کردن پسوندهایی مانند *ic , cal , al , ary , ful , ian , ous* یا *y , ly , ive , able, en* به یک اسم و یا یک فعل می توان صفت ساخت. این پسوندها به فعل و اسم و یا بخشی از آنها اضافه می شود. این پسوندها را معمولاً پسوندهای صفت ساز می خوانند.



Soil



5.4.A. Exercises

Use the mention adjective makers to complete the following sentences .

1. Air pollution is very **harmful** To people's health. (harm)
2. Yesterday the weather was **stormy**. (storm)
3. The students of the class liked the **educational**goals of the teacher. (education)



Soil



2.5. Grammatical points

Compare the following sentences :

- A. Another factor for soil formation is temperature.
- B. There are other ways of doing this exercise
- C. Some like milk chocolate, others like plain chocolate.
- D. He held a book in one hand and a pencil in the other.



Soil

چنانچه در مثالهای بالا دیده می شود ، ضمائر غیر مشخص
در another , the other , others , other
موارد مختلفی بکار برده می شوند.

“ the other ” به معنای “یکی از دو تا” است.

“ other ” در معنای “دیگر” استفاده می شود.

“ others ” در معنای “بقیه ، دیگران” استفاده می شود.

“ another ” در معنای “یکی دیگر” استفاده می شود.



Soil

5.5.A. Exercises

Use another , the other , others , other to complete the following sentences.

1. We got home by 6 o'clock , but the **others**.....did not come back until 9 o'clock.
2. I think geography is more interesting than **other**..... fields.
3. One if the climatic conditions for soil formation is weather , **The other**.....is temperature.
4. You have already given me 5 books but I need **another**... one



The Earth and solar system



- General Aim

This lesson briefly discusses a few facts about the Earth and other planets in our solar system and teaches several common and key words in geography.

- هدف کلی:

این درس بطور مختصر نکاتی را در مورد زمین و سایر سیارات منظومه شمسی بیان می کند. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا ارائه شده است.



The Earth and solar system



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 6.1.B and 5.1.C.
2. Define the meaning of the *common words* and do the exercises 6.2.
3. Define the meaning of the *key words* and do the exercises 6.3.



The Earth and solar system



4. Learn to use *so ... that* and *such... that* patterns in English sentences. Then do exercises 6.4.A.
5. Learn to use *the same as* and *different from* patterns in English sentences . Then do exercises 6.5.A.
6. *Translate* the paragraph 6.6 into Persian.



The Earth and solar system



6.1.A. Pre- reading Questions

1. Among the planets in our solar system , which one do you think is more similar to our Earth? Why?
2. What is the difference of four giant planets with the Earth?
3. Why do you think dinosaurs do not exist today?



The Earth and solar system



Common Words: Definition and exemplification

Persist (v): continue

ادامه دادن

Casual (adj): unplanned , showing little concern , happening by chance

سطحی ، اتفاقی

glance (n): look , quick look

نگاه گذرا

relatively (adv): in proportion

نسبتاً



The Earth and solar system



Common Words: Definition and exemplification

develop (v): to form

توسعه یافتن ، ظهور

nutrient (adj): serving as or providing nourishment

مواد مغذی ، از لحاظ غذایی
مقوی

decompose (v): break down ,
separate into its parts

تجزیه شدن (کردن) ،
پوساندن

Organic (adj): related to living
organism and their remains

آلی ، مواد آلی



The Earth and solar system



Common Words: Definition and exemplification

gap (n): unfilled space, distance

شکاف ، فاصله

Hostile (adj): unfriendly , inhospitable

متخاصم ، کینه توزانه

cap (n): head - covering

کلاهک ، کلاه

evidence (n): proof, sign anything that gives reason for believing something

مدرک ، گواه



The Earth and solar system



Common Words: Definition and exemplification

indicate (v): point out

اشاره کردن

collision (n) meet and strike, come together violently

تصادف ، برخورد

extinction (n): being no longer in existence

انقراض ، انهدام

impact (n): collision , striking on or against something

تصادم ، اصابت



The Earth and solar system



Common Words: Definition and exemplification

swarm (n): colony , large number of some thing or people

گروه

proof (n): evidence

مدرک ، سند

foreseeable (adj): expected , see beforehand or in advance

قابل پیش بینی

alarm (n): fright , fear

دلهره ، هراس

score (n): in consideration of

علت ، دلیل



The Earth and solar system



Key Words: Definition and exemplification

Solar system (n): the Sun and the group of heavenly bodies that are held by its attraction and revolve around it ، منظومه شمسی ، منظومه خورشیدی

Solid planets (n): one of the four planets of Mercury, Venus , the Earth and Mars which are not made of gas.

سیارات سفلی



The Earth and solar system



Key Words: Definition and exemplification

Mercury (n): one of the solid planets

تیر ، عطارد

Venus (n): one of the solid planets

ناہید ، زھرہ

The Earth (n): one of the solid (کرہ زمین) زمین planets which we live on

Mars (n): one of the solid planets

مریخ ، بہرام



The Earth and solar system



Key Words: Definition and exemplification

asteroid (n): one of thousands of small سیارہ کوچک
planets between Mars and Jupiter

Giant planets (n): one of the five planets سیارات عظیم
of Jupiter , Saturn , Uranus , Neptune ,
Pluto

Jupiter (n): one of the giant مشتری ، برجیس
planets



The Earth and solar system



Key Words: Definition and exemplification

Saturn (n): one of the giant planets.

کیوان ، زحل

Uranus (n): one of the giant planets.

اورانوس

Neptune (n): one of the giant planets.

نپتون



The Earth and solar system



Key Words: Definition and exemplification

Pluto (n): one of the giant planets.

پلوتون

Massive (n): large , heavy and solid

حجیم

Atmospheric pressure (n): the pressure of atmosphere near the ground

فشار جوی

revolution (n): revolving or turning around

گردش ، دوران



The Earth and solar system



Key Words: Definition and exemplification

diameter (n): measuring across any geometrical figure or body

قطر

cratered (adj): full of holes in the ground made by explosion of a bomb or etc.

حفره دار

orbit (n): the path followed by one body in its revolution around another, as by the Earth around the sun

مدار



The Earth and solar system



6.3. Exercises

Fill in the blanks with the correct form of one of the following words.

Solar system , solid planets, giant planets, the Earth, Mars, orbit, diameter , Pluto, asteroid

1. **Pluto** is a giant planet is less massive than the Moon
2. The surface of the **giant planet** Are made of gas.
3. Beyond the orbit of the Mars , there are many....**asteroid**



The Earth and solar system



- Translate the following paragraphs
1. The Earth is our home in space. Ancient civilizations believed it to be flat with other planets revolving around it once a day. Even when the Greek showed that the Earth was globe, it was still thought to be the most important body in the universe. This idea persisted for a surprisingly long time. However , in the seventeenth century it was proved that the Earth is an ordinary planet which moves round the sun. A causal glance at a plan of solar system shows that it is divided into two parts .



The Earth and solar system

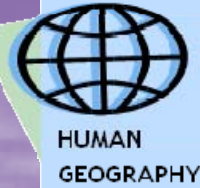
۱. زمین خانه ما در فضا است. تمدنهای گذشته می اندیشیدند که زمین مسطح است و سیارات دیگر هر روز به دور آن می چرخند. حتی زمانی که یونانیان نشان دادند که زمین کروی است، هنوز تصور می شد مهمترین جرم در جهان است. این عقیده برای یک دوره طولانی باور نکردنی پا برجا بود. در هر حال در قرن هفدهم ثابت شد که زمین یک سیاره معمولی است که به دور خورشید می چرخد. یک نگاه گذرا به طرح منظومه شمسی نشان می دهد که منظومه شمسی به دو قسمت تقسیم شده است.



The Earth and solar system



2. Of the solid planets, Mercury is the smallest , with a diameter of 4840 km. It has cratered surface , superficially very like that of The Moon and it basically has no atmosphere. Venus is very nearly as large as the Earth and has an almost circular orbit at a distance of 108000 km from the sun. However Venus and the Earth are not similar at all. Venus has a dense atmosphere made up chiefly of carbon dioxide , the ground pressure is at least 90 times that of the Earth's air at sea level , and the temperature is 500 C. The clouds contains large amount of sulphuric acid and in very way Venus appears to be very hostile.



The Earth and solar system

۳. از بین سیارات سفلی تیر با قطر ۴۸۴۰ کیلومتر کوچکترین می باشد. این سیاره دارای سطح حفره دار ظاهراً شبیه به ماه می باشد و اساساً اتمسفری ندارد. زهره با تقریب بالا به بزرگی زمین می باشد و دارای یک مدار دایره ای در فاصله ۱۰۸۰۰۰ کیلومتری از خورشید می باشد. در هر حال زهره و زمین ابداً شبیه بهم نمی باشند. زهره دارای اتمسفری متراکم که عمدتاً از دی اکسید کربن تشکیل شده می باشد. فشار زمین حداقل ۹۰ برابر فشار هوای زمین در سطح دریا و دما ۵۰۰ درجه سانتیگراد می باشد. ابرها شامل مقادیر زیادی از اسید سولفوریک می باشند و در هر حال زهره بسیار متخاصم جلوه می کند.



The Earth and solar system



3. Yet the Earth will not last for ever. Eventually the Sun will change its structure , and for a time will send out 100 times as much radiation as it dose now . This will certainly mean the end of life on Earth, if not of the Earth itself . However , since the changes in the Sun will not occur for at least 4000 million years , and probably longer, there is no immediate cause for alarm on this score.



The Earth and solar system



۳. با این وجود زمین برای همیشه نمی ماند. سرانجام خورشید ساختارش را تغییر خواهد داد و ۱۰۰ برابر بیشتر از امروز تشعشع خواهد کرد. البته این به معنی پایان زندگی در زمین است گرچه خود زمین نابود نمی گردد. در هر حال چنین تغییراتی در خورشید برای حداقل ۴ میلیارد سال و یا احتمالاً بیشتر رخ نمی دهد، بنابراین علت خاصی برای ترس در این مورد وجود ندارد.



The Earth and solar system



- 6.1.B. Comprehension

Read the following statements and based on the passage *The Earth and solar system* decide which are true (T) and which are false (F):

1. The Earth will not last for ever because it will be explode by sun. **F**
2. The clouds in Venus contain sulphuric acid. **T**
3. Pluto is more massive than the Moon. **F**



The Earth and solar system



6.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. Among the solid planets, is the smallest.

A. the Earth

B. Pluto

✓ C. Mercury

D. Mars



The Earth and solar system



2. Venus is a planet

A. giant

B. minor

✓ C. hostile

D. habitable

3. The diameter of Mars is

A. 687 km

B. 4840 km

✓ C. 6760 km

D. Nine of the above



The Earth and solar system



6.4. Grammatical points

Look at the following examples:

A.1. An asteroid impact led to a climatic change *so* violent *that* it caused the extinction of dinosaurs.

A.2. He left *so* quickly *that* we did not have time to say goodbye.

A.3. Peter has so little money *that* he can not buy the book.

B. It was *such* a stormy day snow covered the whole city.

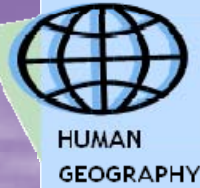


The Earth and solar system

- در مثالهاي بالا مي بينيم كه ساختارهاي *so....that* ,
suchthat در بندهايي استفاده مي شوند كه ميزان
نتيجه موقعيتي را بيان مي كنند
- همانطور كه در مثال A.2 مي بينيم در ميان دو قسمت
ساختار *so....that* معمولاً صفت آورده مي شود، اگر چه
از قيد نيز استفاده مي گردد. مثال A.3 همچنين نشان مي
دهد كه اين ساختار با قيود مقدار *many, much, little*
و *few* نيز استفاده مي شود.
- ساختار *suchthat* در مثال B به كار رفته است.
اين ساختار تنها با عبارات اسمي بكار مي رود .



The Earth and solar system



6.4.A. Exercises

Use so....that and such....that and words in parentheses to complete the following sentences .

1. John told such **A.funny.story** that Mary wanted to hear it again. (story)
2. Mercedes is **such** an expensive car **that** Jack can't buy it .
3. Sima spoke **so**rapidly **that**I couldn't understand her



The Earth and solar system



6.5. Grammatical points

Compare the following examples :

A.1. The tilt of Mars's axis and Earth's are almost the same.

A.2. The tilt of Mars's axis is almost *the same as* the Earth's.

B.1. Mercury's diameter is 4840 km Mars's diameter is 6760 km.

B.2. Mercury 's diameter is *different from* Mars's .



The Earth and solar system



چنانچه در مثالهای A.2 و B.2 می بینیم ساختارهای *different from* و *the same as* برای مقایسه دو انسان ، شیئی، مکان ، حیوان و غیره استفاده می شوند. *The same as* بیانگر شباهت و *different from* نشان دهنده تفاوت هستند.



The Earth and solar system



6.5.A. Exercises

Use *the same as* and *different from* patterns to do this exercise

1. Mary 's major is geography and Batty 's major is geography too.

Mary 's major is the same as the Batty 's.

- My cat is Persian. Jack 's cat is Siamese

My cat is different from Jack 's

3. This radio is small but that one is large

This radio is different from that one



Geomorphology and the Interior Earth



- General Aim

This lesson introduces the science of geomorphology and reviews different layers of the interior Earth and teaches several common and key words in geography and few grammatical points.

- هدف کلی:

این درس علم پیکرشناسی زمین را معرفی کرده و لایه های مختلف درون زمین را مرور می کند. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا و چند نکته دستوری ارائه شده است.



Geomorphology and the Interior Earth



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 7.1.B and 7.1.C.
2. Define the meaning of the *common words* and do the exercises 7.2.
3. Define the meaning of the *key words* and do the exercises 7.3.



Geomorphology and the Interior Earth



4. Learn the meaning and use of some of *adverbs of frequency* in English sentences. Then do exercises 7.4.A.
5. Learn where and how to use *comma* in English sentences . Then do exercises 7.5.A.
6. *Translate* the paragraph 7.6 into Persian.



Geomorphology and the Interior Earth



7.1.A. Pre- reading Questions

1. Do you know what geomorphology deals with?
2. Do you know how many layers are beneath the surface of the earth?
3. how do you think we can learn about the inner side (part) of the earth?



Geomorphology and the Interior Earth



Common Words: Definition and exemplification

stream (n): river, brook

جویبار، نهر

evolution (n): developing, growth

تکامل، رشد

penetrate (v): make away through
or into

نفوذ کردن

fissure (n): a narrow opening or crack
of considerable length and depth

درز



Geomorphology and the Interior Earth



Common Words: Definition and exemplification

shake (v): vibrate, tremble

تکان دادن

fracture (v): break

شکستگی

attack (v): strike, assault

حمله کردن

relevant (adj): appropriate , having
relation to something, connected
with what is being discussed

مربوط



Geomorphology and the Interior Earth



Common Words: Definition and exemplification

vulnerable (adj): damaged easily,
not protected against attack

آسیب پذیر

Mine shaft (adj): long narrow
empty space (usually vertical) in
a mine

میله چاه که به داخل
معدن وصل می شود

radius (n): a straight line from the
center of a circle or sphere to any
point on the circumference

شعاع



Geomorphology and the Interior Earth



Common Words: Definition and exemplification

eruption (n): explosion, blowing up

فوران

warp (v) deform, change the
natural shape

تاب برداشتن

bend (v): cause of force
something to be out a straight
line or surface

خم کردن



Geomorphology and the Interior Earth



Key Words: Definition and exemplification

Geomorphology (n): the study of evolution of the natural landscapes of the earth

ژئومورفولوژی
، پیکرشناسی

Ice sheet (n): any large continuous areas of land - ice

صفحه یخی

Coastal landscapes (n): lands beside seas and ocean

چشم اندازهای
ساحلی



Geomorphology and the Interior Earth



Key Words: Definition and exemplification

Sand duns (n): a low hill of piled sand mainly moved by wind, occurring in deserts. توده های ماسه ای

geology (n): the science of the history , compositing, structure and processes of the earth

زمین شناسی

geophysics (n): the study of physics of the earth's crust and its interior

ژئوفیزیک



Geomorphology and the Interior Earth



Key Words: Definition and exemplification

crust (n): the upper layer of the earth

پوستہ

earthquake (n): a rapid movement and adjustment of land within the rocks in the earth's crust

زلزلہ

glacier (n): a mass of ice of limited width moving outward from where is located

یخچال



Geomorphology and the Interior Earth



Key Words: Definition and exemplification

Inner core (n): the center of
the interior earth

هسته داخلی

Outer core (n): the second layer of
the interior earth after the inner core

هسته خارجی

mantel (n): the layer of the
inner earth which is between
the outer core and the crust

لایه واقعہ بین پوستہ
و هسته کره زمین،
گوشته



Geomorphology and the Interior Earth



Key Words: Definition and exemplification

discontinuity (n): a sudden change
of in the structure of the earth at
great depths

ناپیوستگی

Convection cell (n): the upward
movement of the heated material
(air) and the downward movement of
the cooler material (air)

صعود هوای داغ و
نزول هوای سرد،
سلول همگرایی



Geomorphology and the Interior Earth



7.3. Exercises

Fill in the blanks with the correct form of one of the following words.

geomorphology, ice sheet, inner core, convection cell, glacier, sand dune

1. To know about the surface of the earth, one of the things we should study about ..**glacier**
2. **geomorphology** is the study of the evolution of natural landscapes.
3. The direction of the wind effect the shape of **Sand dune**.....



Geomorphology and the Interior Earth



- Translate the following paragraphs
 1. Today research on slopes, streams and creation of landscapes comes under the topic of geomorphology, which is a special field of physical geography. The term geomorphology is made of three words of geo (earth) , morph (form) ,and logy (science). Geomorphology deals with the physical earth , the surface and the forces that shape and build it. Geomorphologies study subject such as the role of ice sheets in the creation of landscape in the upper Midwest, the functions of waves in the formation of coastal landscapes, and relationships between wind direction and the shape of sand dunes. Therefore we can call geomorphology the study of the evolution of the natural landscape



Geomorphology and the Interior Earth



۱. امروزه تحقیق در مورد دامنه ها ، رودخانه ها و خلق چشم اندازها تحت عنوان ژئومورفولوژی که شاخه ویژه ای از جغرافیای طبیعی است قرار می گیرد . واژه ژئومورفولوژی از سه لغت زمین ، شکل و علم تشکیل شده است. ژئومورفولوژی فیزیک زمین ، سطح و نیروهایی که آنرا شکل داده و می سازند را بررسی می کند. ژئومورفولوژیست ها موضوعاتی نظیر نقش صفحات یخی در ایجاد چشم اندازها در عرضهای بالا ، عملکرد امواج در تشکیل چشم اندازهای ساحلی و ارتباط میان جهت باد و شکل تپه های ماسه ای را بررسی می کنند. بنابر این ما می توانیم ژئومورفولوژی را مطالعه تحول چشم انداز طبیعی بنامیم.



Geomorphology and the Interior Earth



2. To understand the crust we need to know what , in turn, supports it from below. In fact, the interior structure of the earth is quite relevant to geomorphology. Beneath the crust, temperatures and pressures rise to such levels that the rock material becomes sticky (having quality like glue). Chemical change generates the heat that keeps rocks in such sticky or even molten state , and much of the earth's interior is continuously in motion. Resting on this unstable interior , the crust averages from about 6 to about 25 miles (10 to 40 km) in thickness and is thus vulnerable to failure and fracturing



Geomorphology and the Interior Earth



۲. جهت درك پوسته ، در جاي خود لازم است بدانيم چه چيزي آنرا از زير نگه مي دارد. در حقيقت ساختار داخلي زمين كاملاً وابسته به ژئومورفولوژي است. زير پوسته درجه حرارت ها و فشارها به حدي بالا مي رود كه مواد سنگي به حالت چسبناك در مي آيند (داراي خاصيتي مانند چسب). تغيير شيميايي گرمايي ايجاد مي كند كه سنگها را در حالت چسبناك يا حتي مذاب نگه مي دارد، و بيشتر درون زمين پيوسته در حال حركت مي باشد. با تكيه بر اين درون ناپايدار ، ضخامت پوسته بطور متوسط از حدود ۶ تا ۲۵ ميل (۱۰ تا ۴۰ كيلومتر) بوده و جهت شكستگي و خرد شدگي آسيب پذير مي باشد.



Geomorphology and the Interior Earth



3. Whatever the outcome of this research on the mantle will be , it will contribute much to our understanding of behavior and appearance of the crust, both geologically and geomorphologically. It is already clear that interior forces change the upper surface of the crust: volcanic eruptions and earthquakes prove that dramatically. However , the slow , continuous movement of the material in the mantle causes more subtle changes in the crust, slowly pushing , pulling , warping and even bending it.



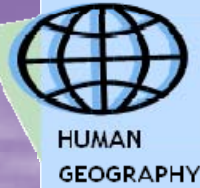
Geomorphology and the Interior Earth



۳. هر قدر نتیجه تحقیق در مورد گوشته ادامه یابد، درك ما از رفتار و ظاهر پوسته هم از نظر زمین شناسی و هم از نظر زمین ریخت شناسی، بیشتر سهم خواهد بود. اکنون روشن است که نیروهای داخلی مانند آتشفشانها، فورانها و زمین لرزه ها که بطور برجسته ای اثبات گردیده اند، سطح فوقانی پوسته را تغییر می دهند. در هر حال حرکت آرام و مداوم مواد در گوشته سبب تغییرات بسیار ظریف در پوسته می گردد. بنحوی که آنرا به آرامی هل می دهد، می کشاند، می پیچاند و حتی خم می کند.



Geomorphology and the Interior Earth



- 7.1.B. Comprehension

Read the following statements and based on the passage *Geomorphology and the Interior Earth* decide which are true (T) and which are false (F):

1. The mantle is made of only hot liquid. F
2. Volcanic eruptions change the surface of the earth. T
3. Beneath the crust of the earth, the temperature is very high. T



Geomorphology and the Interior Earth



7.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. The surface of the earth is called the

- A. Outer core
- ✓ B. crust
- C. mantel
- D. landscape



Geomorphology and the Interior Earth



2. The mantle of the earth contains.....

- A. Solid rocks
- B. Liquid matter
- C. Gases



D. A & B

3. the crust of the earth is about

- A. 2200 km
- B. 420 to 440 miles



C. 6 to 25 miles

D. 2 to 3 miles



Geomorphology and the Interior Earth



7.4. Grammatical points

Compare the following sentences :

A.1. She *always* studies hard.

B .1. She *often* studies hard.

C.1. She *almost* studies hard.

D.1. She *never* studies hard.

A.2. Jack was *always* the best football player in his team.

B.2. Jack was *often* the best football player in his team.

C.2. Jack was *almost* the best football player in his team.

D.2. Jack was *never* the best football player in his team.



Geomorphology and the Interior Earth



• در مثالهاي بالا قيدهاي تکرار *often*, *always*, *almost* و *never* در میان جمله ها استفاده شده اند. اگر این قيود تکرار با افعال *to be* و افعال کمي استفاده شوند، چنانچه در مثال هاي 2 مي بينيم ، معمولاً بعد از فعل آورده مي شوند. اما اگر این قيدها با افعال ديگر استفاده شوند، چنانچه در مثال هاي 1 مي بينيم ، معمولاً بين فعل و فاعل آورده مي شوند. در جمله هايي که داراي افعال ترکيبي هستند، قيدهاي تکرار معمولاً بين دو قسمت فعل آورده مي شوند. برخي از قيدهاي تکرار و معنای آنها عبارتند از:



Geomorphology and the Interior Earth



HUMAN
GEOGRAPHY

always

همیشه

hardly

به سختی

usually

معمولاً

never

هرگز

often

اغلب

already

قبلاً

sometimes

بعضی اوقات

almost تقریباً، نزدیک به



Geomorphology and the Interior Earth



7.4.A. Exercises

Use adverbs of frequency and verb in parentheses to complete the following sentences .

1. Since I was ten , in my family, we **usually have** our dinner at 7.00 p.m. (have)
2. The earth **is almost**a complete sphere .
3. She **already**knows what I think about her.



Geomorphology and the Interior Earth



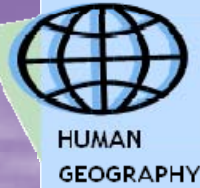
7.5. Grammatical points

Look at the following sentences :

- A. Today research on slopes, streams and creation of landscapes is done by the science of geomorphology.
- B. Overall the mantle is about 1800 miles thick .
- C. To be able to study the surface , landscapes of the earth, how much do we need to know about the underlying geology of the earth.
- D. If I were elected as principal, I would raise teacher's salary.



Geomorphology and the Interior Earth



علامت ویرگول (،) در زبان انگلیسی در موارد خاصی بکار می رود. در مثال A می بینیم که چند علامت ویرگول برای نام بردن از تعدادی عنوان و مطلب به کار رفته است. در مثال A همچنین می بینیم که علامت ویرگول قبل از حرف ربط and نیز استفاده شده است. در مثال B علامت ویرگول بعد از قید overall استفاده شده است. در مثال C دو علامت ویرگول برای جدا کردن توضیح داده شده در مورد کلمه surface آورده شده است. و در مثال D از علامت ویرگول برای جدا کردن دو قسمت جمله استفاده شده است.



Geomorphology and the Interior Earth



7.5.A. Exercises

punctuate the following sentences only where commas are needed.

1. Everything being ready we started to eat.
Everything being ready, we started to eat.
2. To learn geomorphology one needs to study the formation of natural landscapes of the earth

To learn geomorphology, one needs to study the formation of natural landscapes of the earth

3. Mary the teacher is a nice person
Mary, the teacher, is a nice person



Shields Orogenic Belts and ocean Floors



- General Aim

This lesson briefly touches upon the processes which create plains and mountains. Few fact about ocean floors are mentioned too. This lesson teaches several common and key words in geography and few grammatical points.

- هدف کلی:

این درس بطور مختصر فرآیندهایی که دشتهای و کوهها را ایجاد می کنند مورد بررسی قرار می دهد . همچنین مطالبی در مورد کف اقیانوسها ذکر می گردد . همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا و چند نکته دستوری ارائه شده است .



Shields Orogenic Belts and ocean Floors



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 8.1.B and 8.1.C.
2. Define the meaning of the *common words* and do the exercises 8.2.
3. Define the meaning of the *key words* and do the exercises 8.3.



Shields Orogenic Belts and ocean Floors



4. Learn the formation of passive sentences and their different with active sentences in English. Then do exercises 8.4.A
5. Learn how to make comparative and superlative adjectives in English . Then do exercises 8.5.A.
6. *Translate* the paragraph 8.6 into Persian.



Shields Orogenic Belts and ocean Floors



8.1.A. Pre- reading Questions

1. Do you know what shields are?
2. Do you know where Laramide orogeny happened?
3. how do you know what tectonic plates are?



Shields Orogenic Belts and ocean Floors



Common Words: Definition and exemplification

Component (n): element , member

جزء ، بخش

Represent (v): picture , show

نشان دادن ، نمایاندن

Core (n): central of most important
part of anything

هسته ، مرکز

apparently (adj): obviously ,
seemingly

ظاهراً



Shields Orogenic Belts and ocean Floors



Common Words: Definition and exemplification

underlie (v) (underlay , underlain): در زیر قرار گرفتن
to lie or be situated under

crush (v): smash , to press so خرد کردن ، فشردن
that there is breaking

override (v) : to overlap , to روی چیزی قرار گرفتن
press over.

flexure (n): which has the capacity
of being flexed, bent

خمیدگی



Shields Orogenic Belts and ocean Floors



Common Words: Definition and exemplification

margin (n): border, edge

حاشیه ، کناره

reserve (n): supply

ذخیره

Drop off (v): decline, become ،
very steep

افتادن، نزول کردن
پرشیب شدن

marine (adj): of or relating to sea

دریایی



Shields Orogenic Belts and ocean Floors



Common Words: Definition and exemplification

shield (n): core of the continents , a مرکز ثقل قاره ها
rigid mass of pre – Cambrian rocks ، سیر

Orogenic belt (n) :zone of a کمر بند کوهزایی
present or former mountain range
made during orogeny

orogeny (n): times of crushing کوهزا
and breaking thick rock layers of
the crust



Shields Orogenic Belts and ocean Floors



Key Words: Definition and exemplification

Precambrian (n): all the geological time and the associated rocks before the beginning of the Cambrian period of the Paleozoic era, before about 600 million years ago

پرکامبرین

Plain (n): a vast comparatively flat area , though sometimes gently rolling , with no prominent depression or elevation

دشت



Shields Orogenic Belts and ocean Floors



Key Words: Definition and exemplification

plateau (n): an upland surface which is bounded by one or more steep slopes

فلات

asthenosphere (n): the comparatively soft , plastic layer of the earth's upper mantle on which the plates of grade lithosphere

قسمت بالای
پوسته (قسمت
بالای لایه مذاب)

Tectonic plate (n): parts of the earth's lithosphere that move relative to each other

صفحه تکتونیک



Shields Orogenic Belts and ocean Floors



Key Words: Definition and exemplification

Oceanic basin (n): a large – scale حوضه اقیانوسی depression on the earth's surface, filled by an ocean

Continental shelf (n): the gently sloping margins of a continent which are submerge beneath the sea.

فلات قاره



Shields Orogenic Belts and ocean Floors



Key Words: Definition and exemplification

Sialic continent (n): continents made of Si + Al قاره
sial which is the surface granitic rocks of
the continental crust, composed largely
of Silica and Alumina North America ,
Africa ,and Australia are sialic continents

Continental slope (n): the
significant slope from the edge of
continental shelf to the deep- sea
or abyssal plain

شیب قاره ای



Shields Orogenic Belts and ocean Floors



Key Words: Definition and exemplification

Continental rise (n): the slightly tilted فراز قاره ای zone at the foot of the continental slope, where the ocean floor drops off gently toward the abyssal plain

Abyssal plain (n): extensive ocean-floor surfaces which are located at depths of as much as 15000 to 2000 ft. (4500-6000 m) below sea level

دشت مگاکي (دشت
عمیق زیر آبی)



Shields Orogenic Belts and ocean Floors



8.3. Exercises

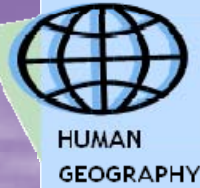
Fill in the blanks with the correct form of one of the following words.

Shield, orogenic belts, plain, sialic continents, tectonic plates, orogeny, continental shelf

1. A zone of mountains build during an orogeny is called ...**orogenic belt**
2. Continental shelves are the continuation of **Sialic continents**
3. The period in which rocks are crushed and therefore , mountains are formed is called **orogeny**



Shields Orogenic Belts and ocean Floors



- Translate the following paragraphs

1. The earth's land masses consist of two basic geological components: shield and orogenic belts. These components are represented by two kinds of landscapes: plain and mountain belts. The shields form the cores of continents. These vast shields are made of very old rocks. On the time scale they are formed in the Precambrian and thus are older than 600 million years, but most are well over 1 billion years old and some shield rocks are thought to be between 3 and 4 billion years old. These rocks are mostly of granitic type , though some have been changed by following volcanic activity.



Shields Orogenic Belts and ocean Floors



۱. توده خشکی زمین دو جزء مهم زمین شناسی را در بر می گیرند: سپرها و کمربندهای کوهزایی. اجزاء مزبور بوسیله دو چشم انداز دشتها و کوهستان ها جلوه می کنند. سپرها هسته قاره ها را تشکیل می دهند. سپرهای عظیم از سنگهای بسیار قدیمی تشکیل شده اند. از نظر مقیاس زمانی آنها در پرکامبرین و بنابراین قدیم تر از ۶۰۰ میلیون سال تشکیل شده اند، اما بیشتر آنها بیش از یک میلیارد سال عمر دارند و تصور می گردد سنگهای برخی سپرها بین ۳ تا ۴ میلیارد سال سن داشته باشند. این سنگها غالباً از گرانیت تشکیل شده اند اگر چه برخی از آنها در پی فعالیتهای آتشفشانی بعدی تغییر یافته اند.



Shields Orogenic Belts and ocean Floors



2. For example, on the geologic time scale, where the formation of the Rocky Mountain in the U.S. has happened, the Laramide orogeny occurred. Just why orogenies have taken place throughout earth history during certain period of strong activity and were followed by times of comparative inactivity is not clear. However it is now known that such as mountain building takes place when grate, rigid pieces of the earth's crust are moved by convection currents in the asthenosphere and collide. These rigid parts, called plates move slowly but not harmoniously. Also known as tectonic plates, they sometimes carry whole continents or, when in a ocean basin, they are the size of continents.



Shields Orogenic Belts and ocean Floors



۲. برای مثال در مقیاس زمان زمین شناسی در جایی که ارتفاعات راکی در ایالات متحده آمریکا اتفاق افتاده است ، کوهزایی لارامید بوقوع پیوست .اینکه چرا کوهزایی ها در سراسر تاریخ زمین در خلال دوره های معینی از فعالیت های شدید رخ داده و با دوره های نسبتاً بدون فعالیت دنبال شده اند واضح نمی باشد .در هر حال اکنون دانسته شده است که زمانی که قطعات بزرگ و سخت پوسته زمین بوسیله جریانات همگرایی در قسمت بالایی پوسته حرکت کرده و بهم برخورد کرده اند چنین ساختمان کوهستانی رخ داده است .این قسمت های سخت صفحات نامیده می شوند که به آرامی اما بطور ناموزون حرکت می کنند .همچنین دانسته شده است که صفحات تکتونیکی برخی مواقع تمام یک قاره را حمل می کنند و یا هنگامی که در حوضه اقیانوسی هستند به اندازه قاره ها می باشند.



Shields Orogenic Belts and ocean Floors



3. The continental shelves vary greatly in width. Off the shores of western south America , for example, the sea floor drops off within a few miles of the land , and there is almost no continental shelf at all. Off the shores of eastern north America , western Europe and southeast Asia, the shelf is hundred of miles wide. The edge of the shelf comes at a depth of 400 to 600 ft. (120 to 180 m), sometimes slightly deeper, where the sea floor drops off quite rapidly in a continental slope. This continental slope is thus the true limit of the continental landmasses, and it carries ocean depths down to an average of 6000 ft. (1800 m).



Shields Orogenic Belts and ocean Floors



۳. فلات قاره ها از نظر عرض بسیار متفاوت می باشند. مثلاً دور از سواحل غربی آمریکای جنوبی سطح دریا فقط حدود چند مایل پایین می افتد و بنابر این بطور کلی فلات قاره ای وجود ندارد. دور از سواحل غربی آمریکای شمالی، غرب اروپا و جنوب شرقی آسیا فلات قاره صدها مایل پهنا دارد. حاشیه فلات قاره تا عمق ۴۰۰ الی ۶۰۰ پا (۱۲۰ تا ۱۸۰ متر) کشیده می شود. برخی مواقع در جایی که کف دریا سریعاً بطور کامل در شیب قاره ای پایین می افتد، فلات قاره تا حدودی عمیق تر می گردد. بنابراین شیب قاره ای مزبور مرز واقعی توده های قاره ای است و بطور متوسط تا ۶۰۰۰ پا (۱۸۰۰ متر) اعماق اقیانوس را در می نورد.



Shields Orogenic Belts and ocean Floors



- 8.1.B. Comprehension

Read the following statements and based on the passage Shield Orogenic Belts and Ocean Floors decide which are true (T) and which are false (F):

1. Mountain belts are made of granite . F
2. continental slope is the real limit of continental landmasses. T
3. Rigid parts of the crust are called plains. F



Shields Orogenic Belts and ocean Floors



8.1.c. Answering detailed questions

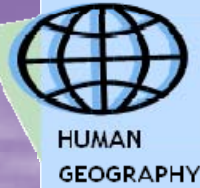
Choose the correct answer to fill in the blank:

1. Today , shield are generally

- A. Mountain ranges
- ✓ B. Plains with wavy surface
- C. Volcanic mountains
- D. Made of sedimentary rocks



Shields Orogenic Belts and ocean Floors



2. The width of the continental shelf off shores of western south America is... ..

- A. About 400 ft.
- ✓ B. Almost non existing
- C. About 1800 ft.
- D. about hundreds of miles

3. shields form the ... of the continents

- ✓ A. cores
- B. soils
- C. Precambrian
- D. granite



Shields Orogenic Belts and ocean Floors



8.4. Grammatical points

Compare the following sentences :

- A. Plains and mountain belts represent the two basic geological components of the earth.
- B . The two basic geological components of the earth are represented by plains and mountain belts.
- C. The prime minister offered him position in the cabinet.
- C.1. A position in the cabinet was offered him.
- C.2. He was offered a position in the cabinet.



Shields Orogenic Belts and ocean Floors



در مثال بالا می بینیم که جمله معلوم A به جمله مجهول B تبدیل شده است. برای چنین تبدیلی مفعول جمله A به جای فاعل جمله B نشسته است و همچنین فعل جمله A در حالت سوم و به همراه فعل to be آمده است.

در مثال های C.1 و C.2 می بینیم که چون جمله معلوم C دارای دو مفعول است، می توان دو جمله مجهول C.1 و C.2 را از آن ساخت.

در صورتی که فاعل جمله معلوم از اهمیت برخوردار باشد، در جمله مجهول بعد از حرف اضافه by آورده می شود. در غیر این صورت نیازی به ذکر فاعل نمی باشد.



Shields Orogenic Belts and ocean Floors



8.4.A. Exercises

change the passive sentences to active ones, and change the active sentences to passive ones.

1. They can not find the thief.

The thief can not be found.

2. The car is being cleaned by Albert.

Albert is cleaning the car.

3. I finished my work at about six o'clock.

My work was finished at about six o'clock..



Shields Orogenic Belts and ocean Floors



8.5. Grammatical points

Look at the following sentences :

A.1. He is strong.

A.2. He is stronger than his sister.

A.3. He is the strongest in his family.

B.1. She is intelligent.

B.2. She is more intelligent than his brother.

B.3. She is most intelligent in her class.



Shields Orogenic Belts and ocean Floors



در مثالهاي A مي بينيم كه اگر صفتي داراي دو سيلاب باشد با افزودن er تبديل به صفت برتر وبا افزودن est ... the تبديل به صفت برترين مي شود.

در مثالهاي B مي بينيم كه هرگاه صفتي داراي بيشتر از دو سيلاب باشد با افزودن more به صفت برتر وبا افزودن the most به صفت برترين مي شود



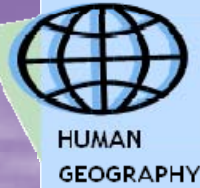
Shields Orogenic Belts and ocean Floors



8.5.A. Exercises

Fill in the blank spaces with an adjective in the correct form.

1. My glass is **fuller**... than yours.
2. he is one of the **best**...teachers of our school.
3. This apple is **sweeter** than the other one.
4. It is **better**.. to study during the semester than to wait for the exam night.
5. Cheetah is the **fastest**.. among all the animals.
6. It is not very **hard**..... to learn English.



Earthquakes

- General Aim

This lesson describes how earthquakes occur and how they effect the surface of the earth and people living on it.

This lesson teaches several common and key words in geography and few grammatical points.

- هدف کلی:

این درس چگونگی رخداد زمین لرزه ها و نحوه تأثیر آنها بر سطح زمین و مردمی که بر روی زمین زندگی می کنند را شرح می دهد. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا و چند نکته دستوری ارائه شده است



Earthquakes

- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 9.1.B and 9.1.C.
2. Define the meaning of the *common words* and do the exercises 9.2.
3. Define the meaning of the *key words* and do the exercises 9.3.



Earthquakes

4. Learn the use of *can and may* in English sentences. Then do exercises 9.4.A.
5. Learn the use of some prepositions used to express PLACE such as above , across, along, at, below, through, towards, over in English . Then do exercises 9.5.A.
6. *Translate* the paragraph 9.6 into Persian.



Earthquakes

9.1.A. Pre- reading Questions

1. Do you know why earthquakes happen?
2. What is tsunami?
3. what do you think we can do to decrease or prevent the loss of many lives by destructive earthquakes?



Earthquakes

Common Words: Definition and exemplification

Submarine (adj): under the surface of the sea مربوط به زیر دریا

mighty (adj): powerful, strong پر قدرت

magnitude (n): size اندازه ، مقدار

Developing countries (n): third world countries کشورهای در حال رشد



Earthquakes

Common Words: Definition and exemplification

Devastating (adj): destructive , مخرب ، ویرانگر
catastrophic

Slide (v): move smoothly, slip سر خوردن ، لیز خوردن

Predication (n) : forecast, guess پیش گوئی

recording (n) : writing accounts of ضبط
facts , events, etc



Earthquakes

Common Words: Definition and exemplification

Strain (n): condition of being stretched

محکم کشیدن

direct (n): point out

اشاره ، نشان دادن

Evacuation (n): make empty , leave

تخلیه



Earthquakes

Common Words: Definition and exemplification

Focus (n): the location within the earth's crust where the movement of rocks being the earthquake wave.

کانون

epicenter (n): the place at the surface of the earth's crust directly above the focus of an earthquake

شعاع زمین لرزه
در روی زمین



Earthquakes

Key Words: Definition and exemplification

fault (n): a fracture the earth's crust along which displacement

گسل

cliff (n) :a steep , vertical or nearly vertical rock wall carved from bedrock by weathering and erosion

دیوارہ ، صخرہ
شیب دار

Scarp (n): small escarpment

پرتگاہ



Earthquakes

Key Words: Definition and exemplification

Escarpment (n): the sheer or very steep and wall-like edge of a plateau or mountainous highland

سینه کش ، دامنه
شیب دار

Landslide (n): rapid movement of a mass of rock and soil on steep mountain slope

زمین لغزه ،
ریزش زمین

Tsunami (n): a large scale seismic sea waves cause by an earthquake shock in the ocean sea floor

امواج پر قدرت ناشی
از زلزله های زیر آبی



Earthquakes

Key Words: Definition and exemplification

seismology (n): the study of زلزله شناسی
earthquake waves through the layer of
the earth

Primary waves (n): directly spread
earthquake waves that radiate ، امواج اولیه
outward in all direction from the
focus تکانهای اولیه



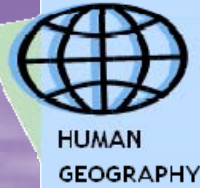
Earthquakes

Key Words: Definition and exemplification

Secondary waves (n): the ، امواج ثانویه ،
earthquake waves which come after زلزله های اصلی
primary waves and very damaging

Seismograph (n): a pendulum
based instrument for recording
seismic waves

زلزله نگار



Earthquakes

9.3. Exercises

Fill in the blanks with the correct form of one of the following words.

focus, epicenter, fault, cliff, scarp, landslide, tsunami, primary waves, secondary waves,

1. Another commonly used name for escarpment is **.scarp..**
2. **Primary waves** are the seismic waves that are radiated in all direction.
3. Through the study of **secondary waves**, we know that there is a liquid core inside our earth.



Earthquakes

- Translate the following paragraphs

1. Earthquakes originate within the crust as well as the upper mantle, but most being within 3 miles (5 km) of the surface. The point of origin is the earthquake's focus, and the location directly above this focus, at the surface of the crust, is the epicenter. An earthquake results from the sudden movement of rocks that has been under long stress. When two lithospheric plates collide, stresses are created that cause certain rocks to fracture. Such fractures in the crust are called faults, and some faults are well known as the source of repeated severe earthquakes, such as San Andreas Fault in California in the United States.



Earthquakes

۱. لرزه‌ها از درون پوسته و گوشته بالایی سرچشمه می‌گیرند اما بیشتر آنها از ۳ مایلی (۵ کیلومتری) سطح زمین شروع می‌گردند. نقطه شروع کانون زلزله و مکانی که مستقیماً بالای کانون در سطح پوسته می‌باشد، شعاع زمین لرزه می‌باشد. یک زلزله از حرکت ناگهانی سنگ که تحت فشار طولانی می‌باشد، ناشی می‌گردد. زمانی که دو صفحه سنگ کره بهم برخورد می‌کنند، فشارهایی ایجاد می‌گردد که سبب می‌گردد سنگهای مشخصی خرد شوند. این شکستگیها در پوسته گسل‌ها نامیده می‌شوند و برخی از گسل‌ها بعنوان منشأ زلزله‌های شدید مکرر بخوبی شناخته شده‌اند. نظیر گسل سن اندریاس در کالیفرنیا ایالات متحده آمریکا.



Earthquakes

2. When such a major earthquake occurs, several different kinds of seismic waves are radiated in all directions. First come the primary waves that travel through the liquid outer core. Next the "shake" (also called shock) or secondary waves, which are very damaging and destructive, reach the seismographs. The "shake" waves are not spread out in fluids, and because they fail to reach that distant zone, a liquid core can be assumed to exist inside our planet.

The field of seismology has contributed much to uncovering of the mysteries of the earth's interior



Earthquakes

۲. هنگامی که يك چنین زمین لرزه بزرگی اتفاق می افتد چندین نوع امواج لرزه ای مختلف در تمام جهتها منتشر می گردند. ابتدا امواج اولیه می آید که از میان هسته خارجی آبگونه عبور می کند. سپس امواج لرزشی (که امواج تکانی هم نامیده می شود) یا امواج ثانویه که بسیار مخرب و ویرانگر می باشند به لرزه نگار می رسند. این امواج لرزشی درون سیالات منتشر نمی گردند، و از آنجایی که آنها از رسیدن به منطقه دور باز می مانند، می توان وجود يك هسته آبگونه را در داخل سیاره مان تصور نمود.



Earthquakes

3. A comparison between a map of earthquake incidence and a map of world population will show why so many people are killed by earthquakes. The high incidence zone lies through regions of dense population in developing countries where buildings are often weak and easily collapsed. However, loss of life occurs even in areas where buildings are modern and strong. This was demonstrated by the devastating earthquake that struck Mexico on September 19, 1985, with a magnitude of 8.1 on Richter scale. This earthquake's epicenter was in the zone off the west coast of Mexico where Cocos plate is sliding under the North American plate.



Earthquakes

۳. مقایسه ای میان نقشه وقوع زمین لرزه و نقشه جمعیت جهان نشان خواهد داد چرا مردم بسیاری بوسیله زمین لرزه کشته می شوند. در کشورهای در حال توسعه منطقه وقوع بالا ی زمین لرزه در مناطق متراکم جمعیتی که ساختمان ها غالباً ضعیف بوده و به آسانی فرو می ریزند، قرار دارد. در هر حال تلفات جانی حتی در مناطقی که ساختمانها جدید و محکم هستند رخ می دهد. این امر بوسیله زمین لرزه مخرب که در 19 سپتامبر 1985 مکزیک را لرزاند اثبات شده است. شعاع این زمین لرزه منطقه ای دور از ساحل غربی مکزیک بود، جایی که صفحه "کوکو" به زیر صفحه "آمریکای شمالی" در حال لغزیدن است.

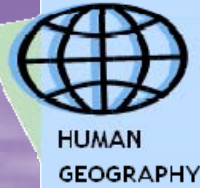


Earthquakes

- 9.1.B. Comprehension

Read the following statements and based on the passage Earthquakes decide which are true (T) and which are false (F):

1. The primary earthquake waves come before the shock . T
2. the central point of an earthquake is called focus . T
3. The range of Richter's scale of earthquake magnitudes ranges from 0 to 10 F



Earthquakes

9.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. Most quake – prone zone lie through
- A. Mountainous area
 - B. Modern countries
 - ✓ C. Developing countries
 - D. Less populated areas



Earthquakes

2. Tsunami is caused by an earthquake whose

.....

- A. Focus is in a landslide
- ✓ B. Focus is under water
- C. Center is under water
- D. epicenter is in river valleys

3. primary waves of an earthquake travel through

- ✓ A. outer core
- B. Inner core
- C. Secondary waves
- D. None of the above



Earthquakes

9.4. Grammatical points

Compare the following sentences :

A.1. John can speak French well.

A.2. Driving on these roads can be very dangerous.

A.3. Can it be true?

B.1. You may go now.

B.2. People may not pick flowers in this park.

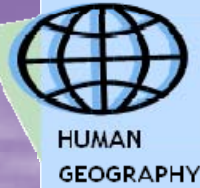
B.3. The news may be true.



Earthquakes

افعال **may** و **can** جزء افعال **can** محدود زبان انگلیسی هستند که می توانند با استفاده از **not** منفی شوند و احتیاج به افعال کمکی ندارند. اگر چه افعال **may** و **can** در موارد خاصی مورد استفاده قرار می گیرند. بعضی از این موارد عبارتند از:

- ۱- همانطور که در مثال A.1 می بینیم از فعل **can** برای نشان دادن توانایی استفاده می شود.
- ۲- در مثال A.2 می بینیم که فعل **can** برای نشان دادن احتمال وقوع حادثه یا عملی به کار می رود.
- ۳- در مثال A.3 می بینیم که فعل **can** در جملات پرسشی و یا تعجبی که امکان انجام عملی را مورد پرسش قرار می دهند به کار می رود.



Earthquakes

افعال **may** و **can** جزء افعال **can** محدود زبان انگلیسی هستند که می توانند با استفاده از **not** منفی شوند و احتیاج به افعال کمکی ندارند. اگر چه افعال **may** و **can** در موارد خاصی مورد استفاده قرار می گیرند. بعضی از این موارد عبارتند از:

- ۱- همانطور که در مثال A.1 می بینیم از فعل **can** برای نشان دادن توانایی استفاده می شود.
- ۲- در مثال A.2 می بینیم که فعل **can** برای نشان دادن احتمال وقوع حادثه یا عملی به کار می رود.
- ۳- در مثال A.3 می بینیم که فعل **can** در جملات پرسشی و یا تعجبی که امکان انجام عملی را مورد پرسش قرار می دهند به کار می رود.



Earthquakes

- ۴- فعل **may** برای اجازه یا اجازه خواستن به کار می رود. مثال B.1 این مورد را نشان می دهد.
- ۵- در مثال B.2 می بینیم که فعل **may** برای نشان دادن ممنوعیت، بخصوص با **not** انجام عملی استفاده می شود.
- ۶- در مثال B.3 می بینیم که فعل **may** برای نشان دادن احتمال امکان انجام عملی یا احتمال درستی یا نادرستی مطلبی به کار می رود.



Earthquakes

9.4.A. Exercises

choose the correct items to complete the following sentences.

1. Jack asked his boss ".....I smoke in your office?"

- A. Do
- B. Can
- ✓ C. May
- D. Had

2. I open the door.

- A. Do
- ✓ B. Can
- C. May
- D. had



Lithosphere and the movement of the inner earth



- General Aim

This lesson discusses different kinds of movements that affect the crust surface of the earth. This lesson teaches several common and key words in geography and few grammatical points.

- هدف کلی:

این درس انواع مختلف حرکاتی که سطح پوسته زمین را متأثر می سازند را مورد بحث و بررسی قرار می دهد. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا و چند نکته دستوری ارائه شده است.



Lithosphere and the movement of the inner earth



- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 10.1.B and 10.1.C.
2. Define the meaning of the *common words* and do the exercises 10.2.
3. Define the meaning of the *key words* and do the exercises 10.3.



Lithosphere and the movement of the inner earth



4. Learn to use of *either Or and neither Nor* pattern in English sentences . Then do exercises 10.4.A.
5. Learn to use *present perfect and present perfect continuous* tenses in English sentences. Then do exercises 10.5.A.
6. *Translate* the paragraph 10.6 into Persian.



Lithosphere and the movement of the inner earth



10.1.A. Pre- reading Questions

1. Do you know what kind of movements affect the crust of the earth?
2. how the crustal equilibrium is disturbed?
3. Do you know what is isostasy?
4. Do you know what is diastrophism?



Lithosphere and the movement of the inner earth



Common Words: Definition and exemplification

complicated (adj): complex, difficult

پیچیدہ

adjustment (n): shift, change, put in order

تطبیق ، تعدیل

Swampy (adj): watery and soaked (land)

باتلاقی

sagging (adj): sinking or curving in the middle under weight or pressure

انحنا ، فرورفتگی
کانونی



Lithosphere and the movement of the inner earth



Common Words: Definition and exemplification

restore (v): reestablish, bring back to
the former position

به حال اول برگرداندن

retreat (n): withdraw, evacuate

عقب نشینی

matching (adj) : alike,
corresponding to

مشابہت ، برابری کردن

profile (n) : shape

نیمرخ ، برش طولی

dimple (v) : having small hollow

چاله ، گودی



Lithosphere and the movement of the inner earth



Key Words: Definition and exemplification

lithosphere (n): the earth's solid crust , لیتوسفر
the uppermost solid layer of the earth سنگ کره
which is above the asthenosphere

Subduction process (n) :when روی هم قرار گیری
one plate slides under the other صفحات زمین ، زیر
and is reabsorbed in mantel راندگی

Plate tectonic (n): where two plates تلاقی صفحه
come to contact and meet



Lithosphere and the movement of the inner earth



Key Words: Definition and exemplification

equilibrium (n): a state of balance when various forces have created a state or form which will not be altered unless the controlling forces change.

موازنہ

delta (n): alluvial lowland at the mouth of a river

دلتا



Lithosphere and the movement of the inner earth



Key Words: Definition and exemplification

Isostasy (n): principle of balance between sial and sima in the earth's crust , in which light sialic mountain ranges are thought to have root that extend deeply into the sima below

تعدادل

diastrophism (n): the forces which have disturbed or deformed the earth's crust

تحولات پوسته زمین



Lithosphere and the movement of the inner earth



Key Words: Definition and exemplification

epirogeny (n): the process of
mountain building through regional
uplift without significant
deformation or tectonic activity

روند شکل گیری
خشکیها



Lithosphere and the movement of the inner earth



10.3. Exercises

Fill in the blanks with the correct form of one of the following words.

Epirogeny, diastrophism, Plate contact, Equilibrium, lithosphere, Subduction process

1. Beneath the surface of the earth, the crust adjusts to restore **equilibrium** between the crust and mantle.
2. The uppermost layer of the crust which is above the asthenosphere is **lithosphere**.
3. **epirogeny**.....causes slight tilt in the surface but it has much affect on the landscapes



Lithosphere and the movement of the inner earth



- Translate the following paragraphs

1. There is evidence that the crust and mantle are in *dynamic adjustment* when there is nothing to disturb that adjustment. However, since the *lithospheric plates* are constantly in motion and because conditions at the surface also change, the *equilibrium* is frequently disturbed. How does it work? Take as an example, an old *long established delta*. For millions of years, a major river, as *Mississippi river*, has been depositing sediments at its mouth, enough to *build mountains* and to block the river's mouth. However nothing of this sort happens. The delta may grow larger, but its landscape *stays the same: shallow, swampy and sagging* slowly as the weight of the sediments increases.



Lithosphere and the movement of the inner earth



۱. شواهدی وجود دارد که پوسته و گوشته در تعادل دینامیکی می باشند البته زمانی که چیزی برای برهم زدن این تعادل وجود نداشته باشد. در هر حال تا زمانی که صفحات لیتوسفری بطور پیوسته در حرکت هستند چون شرایط در سطح نیز تغییر می کند، موازنه بطور مکرر مختل می گردد. موازنه چگونه عمل می کند. مثالی از یک دلتای بسیار قدیمی در نظر بگیرید. یک رودخانه بزرگ مانند می سی سی پی برای میلیونها سال در حال رسوبگذاری در دهانه اش بوده است بقدری که برای ساختن کوه و بستن دهانه رودخانه کافی بوده است. در هر حال هیچک از موارد مذکور اتفاق نمی افتد. دلتا ممکن است طویل تر گردد اما چشم اندازش ثابت می ماند: کم عمق و باتلاقی که که همچنانکه وزن رسوبات افزایش می یابد به آرامی انحنا پیدا می کند.



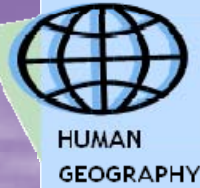
Lithosphere and the movement of the inner earth



2. *Movements* in the crust that lead to deformation of rocks in the lithosphere are cases of *diastrophism*. These range from the *gentle tilting or slight warping* of a large part of tectonic plate to the *bending and breaking* of rocks. When the plates move, they sometimes rise up slightly toward their leading edge, and this creates an *equally slight tilt* at the surface. It is thought that the *asthenosphere's convectional currents* may not provide the same support under all parts of the plates; so part of a plate may "*dimple*" just a little, perhaps temporarily. Such changes are instances of *epirogeny*, the tilting of a large area but with very little *crustal deformation*.



Lithosphere and the movement of the inner earth



۲. حرکاتی که در پوسته منجر به تغییر شکل سنگهای لیتوسفر می گردند مواردی از تحولات پوسته زمین می باشند. این حرکات از انحراف آرام یا تاب خوردگی ملایم یک قسمت بزرگ صفحه تکتونیکی تا خمشدگی و شکستن سنگها می باشند. هنگامی که صفحات حرکت می کنند، برخی مواقع به آرامی به سمت حاشیه برجسته اشان بلند می شوند و این حرکت یک انحراف ملایم یکسان در سطح ایجاد می کند. از آنجایی که تصور می شود که جریانها همگرایی استنوسفری امکان ندارد زیر تمام قسمتهای صفحات را بطور یکسان نگه دارد بنابر این بخشی از صفحه ممکن است به مقداری کم و شاید موقتی گود بیفتد. چنین تغییراتی نمونه هایی از روند شکل گیری خشکیها یعنی انحراف سطح وسیع توأم با تغییر شکل پوسته ای آرام می باشند.



Lithosphere and the movement of the inner earth



- 10.1.B. Comprehension

Read the following statements and based on the passage Earthquakes decide which are true (T) and which are false (F):

1. The upward adjustment of the crust makes the lithosphere heavier. **F**
2. The crustal equilibrium is in stable condition. **F**
3. Epirogeny is the tilting of a range area with very little crustal deformation **T**



Lithosphere and the movement of the inner earth



10.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. The movements of the inner earth is considered to be a part of the

- A. atmosphere
- B. asthenosphere
- ✓ C. crustal equilibrium
- D. Tectonic plate



Lithosphere and the movement of the inner earth



2. We can find the deepest sial roots beneath

.....

✓ A. mountains

B. rivers

C. deltas

D. glacier

3. Diastrophism involves

A. slight tilting of tectonic plates

B. Bending or breaking of rocks

C. isostasy

✓ D. A & B



Lithosphere and the movement of the inner earth



10.4. Grammatical points

Compare the following sentences :

A.1. you should either work harder or go into another class.

A.2. Either tomorrow or Tuesday is convenient for me to go on a picnic.

B.1. Neither your answer is right nor mine is.

B.2. she doesn't like fish, neither do you



Lithosphere and the movement of the inner earth



- حرف ربط *either.....or* به معنای “این یا آن” می باشد و همانطور که در مثالهای A.1 و A.2 می بینیم برای دو قسمت یک جمله مرکب و یا دو عبارت یک جمله بکار می رود.
- حرف ربط *neither.....nor* به معنای “نه این و نه آن” می باشد . در مثالهای B.1 و B.2 می بینیم که *neither.....nor* به مانند *either.....or* فقط با معنی متفاوت استفاده میشوند.
- اگر چه مثال B.2 نشان می دهد که اگر *neither* را به تنهایی استفاده کنیم جای فعل و فاعل در جمله بعد از آن عوض خواهد شد



Lithosphere and the movement of the inner earth



10.4.A. Exercises

Complete the following sentences using
neithernor or either.....or.

1. I don't agree with you ,**neither**.....does my friend
2. **neither**the quality **nor**.....the prices have changed.
3. Peter did not study ,**neither**.....did Jack.
4. Today , I like to buy **either**...a blue coat
or....a dark hat!
5. Can **either**.. you .**or**.....your friend give me a ride.



Lithosphere and the movement of the inner earth



10.5. Grammatical points

Compare the following sentences :

A.1. I have lost my pen ; I am unable to do my exercise.

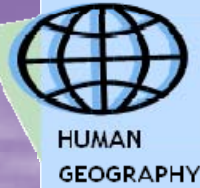
A.2. The mail has just come.

A.3. I have seen this movie before.

B. For million years, Mississippi river has been depositing sediment at its mouth



Lithosphere and the movement of the inner earth



در مثالهاي A موارد استفاده از ماضي نقلي را مي بينيم. ماضي نقلي
براي موارد زير استفاده مي شود:

۱- بيان عملي که در گذشته انجام شده است ولي از آن زمان تا کنون
باقي است. (مثال A.1)

۲- بيان عملي که تازه تمام شده است. (مثال A.2)

۳- بيان عملي که زمان انجام آن نامشخص است. (مثال A.3)

در مثال B مي بينيم که زمان ماضي نقلي استمراري براي بيان
استمرار داشتن عملي که در گذشته شروع شده و تا کنون نيز ادامه
دارد، استفاده مي شود. البته احتمال دارد که اين عمل در زمان آينده
نيز ادامه داشته باشد.



Lithosphere and the movement of the inner earth



10.5.A. Exercises

Complete the following sentences with either present perfect or present perfect continuous form of verb in parentheses.

1. I ..**have**..just ..**eaten**..and I am not hungry. (eat)
2. He **has been**...**studding**..English since he was 10 years old.(study)
3. I **have**.... never **met**....your sister. (meet)
4. **Has**....George**finished** all the sweet. (finish)
5. I **have been living** in Tehran for 2 years. (live).



Erosion

- General Aim

This lesson briefly introduce the concept of erosion and then focuses on the erosion caused by river. This lesson teaches several common and key words in geography and few grammatical points.

- هدف کلی:

این درس بطور مختصر مفهوم فرسایش را معرفی نموده و سپس بر فرسایش رودخانه ای متمرکز می گردد. همچنین در این درس چند لغت عام و چند واژه کلیدی در مورد جغرافیا و چند نکته دستوری ارائه شده است.



Erosion

- Behavioral Objectives

After study this lesson, you will be able to:

1. *Do* the comprehension exercises 11.1.B and 11.1.C.
2. Define the meaning of the *common words* and do the exercises 11.2.
3. Define the meaning of the *key words* and do the exercises 11.3.



Erosion

4. Learn the two different uses of *there* as a *subject and as an adverb* in English sentences . Then do exercises 11.4.A.
5. Learn the use and function of *rather* and *ratherthan* in English sentences . Then do exercises. Then do exercises 11.5.A.
6. *Translate* the paragraph 11.6 into Persian.



Erosion

11.1.A. Pre- reading Questions

1. Do you know what is the important agent of erosion?
2. what is corrosion?
3. When dose degradation occur?
4. Do you know the causes of valley deepening?



Erosion



Common Words: Definition and exemplification

exposed (adj): uncovered , left
unprotected

رو باز

disintegration (n): decompose, break
into small parts

متلاشي شدن

Sculpting (n): sculpture, forming

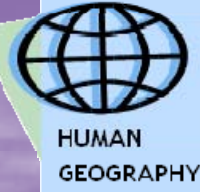
شکل دادن

Agent (n): person or thing
producing an effect

عامل



Erosion



Common Words: Definition and exemplification

load (n): cargo, that which is carried especially when it is heavy

بار

Prevailing (adj): dominant, widespread

معمول ، متداول

Overestimate (adj) : exaggerate

برآورد اضافی

volume (n) : amount

مقدار ، تودہ ، حجم

velocity (n) : speed

سرعت



HUMAN
GEOGRAPHY

Erosion

Common Words: Definition and exemplification

Fine (adj): thin, small, subtle

نرم ، ریز

Susceptible (adj): prone, capable of

مستعد ، قابل



Erosion

Key Words: Definition and exemplification

channel (n): the deepest part of a river bed

ترعه ، مجرا

degradation (n): wearing down of the landscape by stream

سایش

levee (n): a natural bank built up by a stream along the edge of its channel

بند، خاکریز (کناره ای که بیشتر در هنگام وقوع سیل ایجاد می گردد)



Erosion

Key Words: Definition and exemplification

aggradation (n): the building up of a stream bed or other surface through the deposition of sediment done by streams, glaciers, waves and winds

رسوب گذاري ،
صاف کردن

Bank (n): margin or side of a river

کناره رودخانه

valley (n): an elongated depression sloping toward the sea or an island drainage basin

دره



Erosion

Key Words: Definition and exemplification

Alluvium (n): sediment deposited in the stream valley or channel when the velocity of the river decreases
آبرفت ، رسوب

abrasion (n): the process of eroding by running water, glacial ice, waves and wind , it involves the grinding of rocks to finer sediment reach

فرسایش دریایی



Erosion

Key Words: Definition and exemplification

Corrosion (n): erosion by solution

فرسایش شیمیایی

Boulder (n): a large piece of rock

قلوه سنگ

Traction (n): the process undergone by material being dragged along a river bed

حمل اجسام در بستر



Erosion

Key Words: Definition and exemplification

Saltation (n): a rolling or bouncing of small rock particles, driven by stream water or wind action

حرکت ناگہانی

Eddy (n): a movement of a fluid substance, particularly air and water , within a larger one

گرداب ، گردباد

suspension (n): in stream or wind transportation, the removal of particles above the stream bed or bedrock surface for long time

تعليق



Erosion

11.3. Exercises

Fill in the blanks with the correct form of one of the following words.

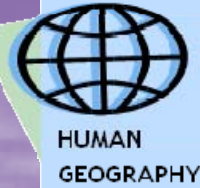
Eddy, suspension, Corrosion, Traction, Boulder, Alluvial, abrasion, velocity, levee, exposed

1. The **alluvial**..... soil filled the bottom of the river valley.
2. The process of traction is almost opposite of ..**suspension**
3. Mountain stream are powerful enough to carry...**boulders**



Erosion

- Translate the following paragraphs
 1. *Exposed rocks* of the earth's crust are under continuous attack by numerous processes. Many of these processes can be grouped under two categories; *weathering and erosion*. *Weathering* is the *mechanical disintegration* of rocks but without *significant movement* of the fragments produced. *Erosion* involves both the *breakdown of rocks* by water, ice or wind and *removal* of fragments created by weathering and erosional processes. Important of weathering and mass movements are in the sculpting of landscapes, they come no where near matching stream erosion in their total effect on the continents. Rivers and streams are the dominant agents of erosion. They are the major forces that attack mountains and destroy plateaus.



Erosion

۱. رخنمون های سنگی پوسته زمین تحت حملات مداوم فرآیندهای بیشماری می باشند. بسیاری از این فرآیندها می توانند تحت دو دسته گروه بندی شوند: هوازدگی و فرسایش. هوازدگی تجزیه فیزیکی و شیمیایی سنگها اما بدون حرکت قابل توجه قطعات تولید شده، می باشد. فرسایش هم شکستگی و خردشدگی سنگها بوسیله آب، باد و یخ و هم انتقال قطعات ایجاد شده ناشی از فرآیندهای هوازدگی و فرسایش را در بر می گیرد.

اهمیت هوازدگی و حرکات توده ای در شکل دادن به چشم اندازها می باشد، آنها در مجموع از نظر تأثیر شان بر قاره ها تقریباً در هیچ کجا مشابه فرسایش رودخانه ای نمی باشند. رودخانه ها و جویبارها عامل متداول فرسایش می باشند. آنها نیروهای اصلی می باشند که به کوهها حمله کرده و فلاتها را تخریب می کنند.



Erosion

2. *Stream erosion* takes place in more than one way. We give the name *hydraulic action* to the force of the moving water that alone is enough to *move and drug* away material from the valley bottom. These loosened materials, especially larger pieces, loosen still other parts of the valley floor as they *roll and bounce* along in the water. In the process, they are ground down to finer sediment. This is *abrasion*, an important contributor to the *valley deepening* process. Certain rocks that the river flows over are susceptible to solution. This *chemical form of erosion* is identified as *corrosion*, the least significant contributor to the overall erosion by rivers. Of course, we should not overlook the river's contribution to *mass movement* of the valley sides. *Collapse* of valley sides from river's undercutting is a very important process in the sculpting of land surfaces.



Erosion

۳. فرسایش رودخانه ای در بیش از یک روش اتفاق می افتد. ما به نیروی آب جاری که به تنهایی برای کندن و حرکت مواد از کف دره کفایت می کند، فعالیت هیدرولیکی اطلاق می کنیم. این مواد سست شده، بویژه قطعات درشتتر، همچنانکه در آب غلطیده و بالا و پایین می روند، همراه با دیگر قسمت‌های دره، هنوز سست تر می گردند. در این مرحله آنها به رسوبات ریز تبدیل می شوند. ای فرآیند فرسایش آبی است که سهم مهمی در عمیق کردن دره دارد. سنگ‌های مشخصی که رودخانه بر آنها جریان دارد مستعد حل شدن می باشند. این شکل شیمیایی فرسایش بعنوان فرسایش شیمیایی، کم اهمیت ترین عامل در فرسایش کلی رودخانه ای، تعریف شده است. البته ما سهم رودخانه‌ها در حرکات توده ای کناره‌های دره را ندیده نمی گیریم. ریزش کناره‌های دره ناشی از زیرشویی رودخانه فرآیند بسیار مهمی در شکل‌گیری سطح زمین است.



Erosion

- 11.1.B. Comprehension

Read the following statements and based on the passage Erosion decide which are true (T) and which are false (F):

1. Weathering is only mechanical disintegration. **F**
2. corrosion is the least significant contributor to the erosion by river. **T**
3. The process of valley deepening is usually most active where the river being. **T**



Erosion

11.1.c. Answering detailed questions

Choose the correct answer to fill in the blank:

1. Erosion involves.....

A. Breakdown of rocks

B. Disintegration of rocks

✓ C. Removal of fragments created by weathering and erosional process

D. A&C



Erosion

2. We call the force of the moving water which can carry materials from the valley bottom

A. abrasion

✓ B. Hydraulic action

C. alluvial

D. velocity

3.of water is one of the contributors to the process of valley deepening

✓ A. velocity

B. Mineral in the water

C. The amount of solution in water

D. Fine sediments



Erosion

11.4. Grammatical points

Compare the following sentences :

A. *There* are five of us in the room.

B. Many people were *there*.

C. *There* comes John!



Erosion

- کلمه *There* در انگلیسی می تواند در دو نقش فاعلی و قیدی بکار رود.
- مثال A نقش فاعلی *There* را نشان می دهد. *There* در نقش فاعلی معنایی ندارد و فاعل اصلی بعد از فعل می آید.
- مثال B، *There* را در نقش قیدی – قید مکان نشان می دهد. در مثال C نیز *There* نقش قیدی دارد، اما چون در جمله تعجبی آمده است، برای تأکید به اول جمله آورده شده است. در این جمله فاعل واقعی بعد از فعل آمده است. *There* به عنوان قید مکان در جملات عادی نیز برای تأکید می تواند به اول جمله منتقل شود.



Erosion

11.4.A. Exercises

Read the following sentences and decide what is the role of THERE in each sentence. Is it adverb or subject.

1. Have you ever been there? **adverb**
2. There the river function as a builder. **adverb**
3. There goes Helen! **adverb**
4. I refused to take one more step and I just sat there. **adverb**
5. There is a letter for you on your desk. **subject**



Erosion

11.5. Grammatical points

Compare the following sentences :

A. She would *rather* buy the small hat *than* the large one.

B. This book is *rather* too difficult.

C.1. My grandfather told me a *rather* nice story.

C.2. My grandfather told me *rather* a nice story.

در مثال A می بینیم که ترکیب *Rather... than* برای مقایسه کردن بکار می رود. در مثال های B , C ، *Rather* به معنای " نسبتاً ، تقریباً " و یا حتی بدون معنا ، قبل از قید، یک حرف تعریف (شمارشی) و یا بین یک حرف تعریف شمارشی و صفت قرار می گیرد .



Erosion

11.5.A. Exercises

Complete the following sentences using either *rather* or *rather than*.

1. Wouldn't you**rather**.....be killed
...**than**...feared?
2. I would...**rather**..play...**than**....work.
3. Jack bought a **rather** nicesuit
4. Mina'd **rather**..study geography
than....chemistry.
5. That is**rather**.. a beautiful picture

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