1. **Read the text.**

[Stages in water treatment](http://en.wikipedia.org/wiki/Water_purification%22%20%5Cl%20%22Stages_in_typical_municipal_water_treatment%23Stages_in_typical_municipal_water_treatment) (Этапы очистки воды)

There are three principal stages in water purification:

Primary treatment - collecting and screening including pumping from rivers and initial storage;

Secondary treatment - removal of fine solids and the majority of contaminants using filters, coagulation, flocculation and membranes;

Tertiary treatment - polishing, pH adjustment, carbon treatment to remove taste and smells, disinfection, and temporary storage to allow the disinfecting agent to work.

[Primary Treatment](http://en.wikipedia.org/wiki/Water_purification#Primary_Treatment%23Primary_Treatment)

Pumping and containment- The majority of water must be pumped from its source or directed into pipes or holding tanks. To avoid adding contaminants to the water, this physical infrastructure must be made from appropriate materials and constructed so that accidental contamination does not occur.

Screening - The first step in purifying surface water is to remove large debris such as sticks, leaves, trash and other large particles which may interfere with subsequent purification steps. Most deep [Groundwater](http://en.wikipedia.org/wiki/Groundwater) does not need screening before other purification steps.

Storage -Water from rivers may also be stored in [bankside reservoirs](http://en.wikipedia.org/wiki/Bankside_reservoirs) for periods between a few days and many months to allow natural biological purification to take place. This is especially important if treatment is by [slow sand](http://en.wikipedia.org/wiki/Slow_sand_filter) [filters](http://en.wikipedia.org/wiki/Slow_sand_filter). Storage reservoirs also provide a buffer against short periods of [drought](http://en.wikipedia.org/wiki/Drought) or to allow water supply to be maintained during transitory [pollution](http://en.wikipedia.org/wiki/Water_pollution) incidents in the source river.

Pre-conditioning - many waters rich in hardness salts are treated with bsoda- ash to precipitate [calcium carbonate](http://en.wikipedia.org/wiki/Calcium_carbonate) out utilising the [common ion effect](http://en.wikipedia.org/wiki/Common_ion_effect)

Pre-chlorination - in many plants the incoming water was chlorinated to minimise the gowth of fouling organisms on the pipe-work and tanks. Because of the potential adverse quality effects (see Chlorine below), This has largely been discontinued [3].

[Secondary treatment](http://en.wikipedia.org/wiki/Water_purification#Secondary_treatment%23Secondary_treatment)

There are a wide range of techniques that can be used to remove the fine solids, micro-organisms and some dissolved inorganic and organic materials. The choice of method will depend on the quality of the water being treated, the cost of the treatment process and the quality standards expected of the processed water.

* + [pH](http://en.wikipedia.org/wiki/PH) adjustment,
	+ Coagulation and flocculation,
	+ Sedimentation,
	+ Filtration,
	+ [Ultrafiltration](http://en.wikipedia.org/wiki/Ultrafiltration) [membranes](http://en.wikipedia.org/wiki/Membranes).

[Tertiary treatment](http://en.wikipedia.org/wiki/Water_purification#Tertiary_treatment%23Tertiary_treatment)

[Disinfection](http://en.wikipedia.org/wiki/Disinfection) is normally the last step in purifying drinking water. Water is disinfected to destroy any [pathogens](http://en.wikipedia.org/wiki/Pathogens) which passed through the filters. Possible pathogens include [viruses](http://en.wikipedia.org/wiki/Viruses), [bacteria](http://en.wikipedia.org/wiki/Bacteria), including [Escherichia coli](http://en.wikipedia.org/wiki/Escherichia_coli), [Campylobacter](http://en.wikipedia.org/wiki/Campylobacter) and [Shigella](http://en.wikipedia.org/wiki/Shigella), and [protozoans](http://en.wikipedia.org/wiki/Protozoans), including [G. lamblia](http://en.wikipedia.org/wiki/Giardia_lamblia) and other [Cryptosporidia](http://en.wikipedia.org/wiki/Cryptosporidium). In most developed countries, public water supplies are required to maintain a residual disinfecting agent throughout the distribution system, in which water may remain for days before reaching the consumer. Following the introduction of any chemical disinfecting agent, the water is usually held in temporary storage - often called a contact tank or clear well to allow the disinfecting action to complete.

1. Chlorine
2. Chlorine dioxide
3. [Ozone](http://en.wikipedia.org/wiki/Ozone)
4. [UV radiation](http://en.wikipedia.org/wiki/UV_radiation)
5. **Answer the following question according to the text.**
	1. What are the principal stages in water purification?
	2. What process take place at the [Primary Treatment](http://en.wikipedia.org/wiki/Water_purification#Primary_Treatment%23Primary_Treatment)?
	3. What process take place at the [Secondary Treatment](http://en.wikipedia.org/wiki/Water_purification#Secondary_treatment%23Secondary_treatment)?
	4. What process take place at the [Tertiary Treatment](http://en.wikipedia.org/wiki/Water_purification#Primary_Treatment%23Primary_Treatment)?

 **3. Письменно переведите текст**

**Самостоятельная работа**

**Задание выполнить до 25.03.2019 и прислать на электронную почту** **ludmilkak1981@mail.ru** **до 13-00**

**Тема:** «The Past Simple»»

**Цель:** повторить и закрепить грамматический материал

**Форма самостоятельной работы:** грамматические задания, работа со словарем

**План изучения темы:**

1) Выполнить письменно упражнения:

Упражнения 1. Перепишите следующий текст в прошедшем времени.

On Monday we have five lessons. The first lesson is English. At this lesson we write a dictation and do some exercises. Nick goes to the blackboard.
He answers well and gets a "five". Pete does not get a "five" because he does not know his lesson. After the second lesson I go to the canteen. I eat a sandwich and drink a cup of tea. I do not drink milk. After school I do not go home at once. I go to the library and take a book. Then I go home.

Упражнения 2. Перепишите следующий текст в прошедшем времени (что рассказала мама).

On Tuesday I get up at half past six. I go to the bathroom and wash my hands and face and clean my teeth. Then I dress, go to the kitchen and cook breakfast for my family. At half past seven my son gets up and has breakfast. I have breakfast with my son. My son eats a sandwich and drinks a cup of tea. I don't drink tea. I drink coffee. After Breakfast my son leaves home for school. I don't leave home with my son. On Tuesday I don't work in the morning. I work in the afternoon. In the evening I am at home. My husband and my son areat home, too. We rest in the evening. My son watches TV, my husband reads newspapers and I do some work about the house. At about eleven o'clock we go to bed.

Упражнения 3. Перепишите следующий текст в прошедшем времени.

Barry waked up when it was already quite light.  He looked at his watch. It was a quarter to seven. Quick! Barry jumped out of bed and ran to the bath-room. He had just time to take a cold shower and I drank a glass of tea with bread and butter. He was in a hurry to catch the eight o'clock train. At the railway station he met three other boys from his group. They all had small backpacks and fishing-rods. In less than an hour they got off the train at a small station near a wood. They walked very quickly and soon found themselves on the shore of a large lake. The boys spent the whole day there fishing, boating and swimming. They returned home late at night, tired but happy.

Упражнения 4. Раскройте скобки, употребляя глаголы в Present или Past Simple.

1. I (to go) to the gym at seven o'clock every day.

2. I (to go) to the gym at seven o'clock yesterday.

3. John (to clean) his teeth every morning at 7.30 o’clock.

4. Yesterday John (to clean) his teeth at a half past seven in the morning.

5. Jane (not to do) English exercises every day.

6. Jane (not to do) English exercises yesterday.

7. His brother (to drink) coffee with milk every day.

8. His brother (to drink) coffee with milk yesterday.

9. Her husband (to like) his job. He (to go) to his office by bus. He (to go) to the office at 9 am every day.

10. Her husband usually (to go) to his office by bus. He (to come) to the office at 9.30 am yesterday.

**Упражнения 5. Раскройте скобки, употребляя глаголы в Present или Past Simple.**

1. I (to study) English every day.

2. You (to come) to my place yesterday?

3. He (to live) in Dubai.

4. How long it (to take) you to get to the City Mall?

5. What you (to study) every Friday?

6. We (to have) dinner with my family yesterday.

7. His computer (to be) ready yesterday.

8. My friend (to like) running in the park every morning.

9. Their family (to invite) everybody to the party last week.

10. Jesse always (to come) to work early.