# GEOGRAPHY

# *Syllabi*

for

EIGHT-YEAR SCHOOL



PROSVESHCHENIYE · 1966

MINISTRY OF EDUCATION OF THE R.S.F.S.R.

# SYLLABI

For
Eight-year
School

*GEOGRAPHY*



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# GEOGRAPHY

## EXPLANATORY NOTE

The course of geography for the eight-year school is intended to give the pupils the fundamentals of geographical knowledge of the nature of the Earth, natural conditions, population and its main economic activities both in the U.S.S.R. and the principal foreign countries.

At the same time the study of geography at school is of exceptional importance for the ideological upbringing of the pupils.

When studying geographical environment, the pupils are brought to the dialectical-materialistic conception of relationship that exists in nature between different physico-geographical phenomena and between nature and society as well.

The pupils learn from the course of geography the fundamental distinctions between the economy and political system of the U.S.S.R. and other Socialist countries, on the one hand, and those of the capitalist countries, on the other.

Study of the population and its economic activities in the Socialist and the capitalist countries ensures closer ties between school and life, facilitates the upbringing of the pupils in the spirit of Soviet patriotism and proletarian internationalism, and brings into light the advantages of the Socialist system over the capitalist one.

With a view to instilling the pupils with love of nature and care for preserving natural resources, the syllabus treats some questions that are covered by the Nature Protection Law.

Geography is closely related to the present. This makes it possible for the teacher to bring in information which the pupils are able to comprehend, on the current economic and political life in the U.S.S.R. and other Socialist countries and in the capitalist countries.

While studying geography, the pupils acquire a number of practical skills and habits of polytechnical significance. Apart from contributing to active learning the system of practical work provided for by the syllabus makes it possible for the pupils to take measurement in the field, plot and read various plans, read topographical and geographical maps, draw charts, diagrams and cartograms of different contents, make observations visually and with the aid of instruments, and describe objects of nature.

Nature-study excursions and practical work in the field make for a large-scale use of local lore material in introducing information envisaged by the course of geography.

In connection with the study of geography the pupils are expected to take, within their powers, an active part in protecting nature, in making surveys, in compiling various descriptions and weather reports, in carrying out agrometeorological and phenological observations, etc.

The syllabus is based on the following arrangement of study courses per school year:

elementary course of physical geography (70 hours): 5th form;

geography of the parts of the world and the principal countries (104 hours): 6th form and the first term of 7th form;

geography of the U.S.S.R. (141 hours): the second term of 7th form and 8th form.

It will be seen from the above distribution of the material that in the geography course of the eight-year school emphasis is laid on the political geography of the countries of the parts of the world, including the U.S.S.R.

The systematic course of geography in the eight-year school starts in 5th form the "Elementary Course of Physical Geography" which is intended to provide the pupils with the knowledge of basic phenomena of physical geography, teach them how to use the map and thus bring them to a conscious study of the political geography courses.

In connection with the study of geography of re-

spective territories in 6th, 7th and 8th forms the syllabus provides for an expansion of the scope of general notions of physical geography and a more thorough comprehension of basic physico-geographical laws. Thus, for example, when studying the "Elementary Course of Physical Geography" and on the basis of observations carried out in the elementary school and in the 5th form, the pupils learn the notions of weather and climate; from the "Course of Geography of the Parts of the World" they get an idea of the main types of climate existing in the world and learn the general notions of monsoons and trade winds and of their influence on the climate of the respective territories of the globe; when giving a general survey of the U.S.S.R. in 7th form the notions of masses of air, cyclones and anti-cyclones are introduced.

In determining the content and structure of the courses due account has been taken of the fact that the study programme at the elementary school provides for the pupils learning a number of elementary geographical notions and that it lays great emphasis on the necessity of accumulating by the pupils some knowledge of the peculiar features of the nature and production activities of the people both in the vicinity of the school and in the various zones of the U.S.S.R.

The "Elementary Course of Physical Geography" opens up with the material which the pupils are able to comprehend and which is based on their personal observations in the surrounding nature and on the practical work at school and in the field. This is followed by more complex questions that lead the pupils to the understanding of physico-geographical phenomena occurring in the world.

When studying the course the pupils size up the relationship between the objects and natural phenomena (such as between relief and rivers, geographical latitude and climate, climate and vegetation). At the same time they get an idea of the economic importance of lakes, rivers, climate, etc.

The study of the course begins with the "Introduction" which presents the subject-matter of physical geography to the pupils in a form that is conducive to their understanding.

From the very first lesson the teacher takes steps to arrange daily observations by the pupils of weather con-

ditions and once a month (in the 20ies of each month) — observations of the midday height of the Sun. During the first month of studies a nature-study excursion is organized to observe the shapes of the surface of the terrain and the waters in the localities.

From the theme "The Plan and the Map" the pupils acquire knowledge of the basic principles of presenting country on a chart (on a plan). From the plan, they gradually proceed to studying the physical map of the U.S.S.R. and the map of the hemispheres. The study of this theme calls for extensive practical work in the field, and on the geographical study — grounds of the school.

On the basis of specific notions acquired by the pupils during the autumn excursion and when working with different visual aids — both in class and on the geographical study grounds — the subsequent themes introduce general information on the various shapes of surface, inland waters, and the world ocean. When studying these themes, the pupils get a cartographical idea of where the plains, mountains, rivers, oceans and seas are situated on the map of the U.S.S.R. and of the hemispheres.

The study of the theme "The Earth and Its Motion" should ensure the most elementary notions of the Sun and the solar system, of the importance of the Sun for life on the Earth, of man-made earth satellites and the first space flights by Soviet cosmonauts. The pupils will learn the causes of alternation of day and night and of seasons. The knowledge of the map is amplified by the notion of the grade grid and its purpose. The assimilation of this difficult question rests on the mathematical knowledge of the circle and its division into grades.

The understanding of the causes of alternation of seasons is facilitated by the data previously collected during the observations for changes in the midday height of the Sun over the horizon in different seasons. The notions of different degrees of illumination and heating of the Earth by the Sun on the days of the summer and winter solatice are essential to understand the causes of alternation of seasons. On the basis of knowledge of these phenomena the pupils are lead to understand the causes of different seasons occurring in the Northern and Southern hemispheres. When studying these themes, the notions of polar circles, tropics and thermal belts are introduced.

The theme "Weather and Climate" is aimed at giving the pupils an idea of atmospheric phenomena and relationships between the components of weather, as appearing from an analysis of weather observations carried out by the pupils individually. When studying this theme, the pupils come to realize the economic significance of seasonal changes of weather in the region. The notion of climate and climate-forming factors is derived from the knowledge of weather and its seasonal changes in the region.

The theme "Natural Zones" includes information on relation between the vegetable kingdom and climate, and on dependence of the animal kingdom on climale and vegetation. On this basis the pupils get a general idea of natural zones. The specific natural conditions of the zone in which the school is situated, are studied in particular.

A spring excursion will be arranged with a view to extending the knowledge of the shapes of the surface and the waters of the localities and acquainting the pupils with the vegetable and animal kingdoms. During the excursion they will plot the itinerary for the second time.

The syllabus of the "Elementary Course of Physical Geography" calls for a large volume of practical work which will help the pupils acquire a number of skills, such as taking one's bearings in the field, plotting the itinerary, reading the ground plan and elementary reading of the geographical map, making weather observations and sorting out the data thus obtained.

The purpose of the course "Geography of the Parts of the World and the Principal Countries" is to give the pupils knowledge of the physico-geographical features, population and political map of the parts of the world. The syllabus includes information on natural conditions, population and the main forms of economic activity of the population in the principal foreign countries.

The course begins with "Introduction" which sets out, in a brief form, the content and purpose of the geography of the parts of the world and introduces the idea of continents and parts of the world. The theme "Population of the Globe" includes information about the population of the world and its distribution over the parts of the world. O general idea of races is introduced in this theme.

The parts of the world are arranged in the syllabus in the following order: Europe and Asia (6th form), Africa, America, Australia and the Antarctic (first term of 7th form).

The peculiar features of each part of the world are set out in accordance with a uniform plan: geographical situation, relief, mineral resources, climate, rivers and lakes, natural zones, and population. Such a study of the physico-geographical features makes it possible for the teacher to trace more complex (as compared with the elementary course of physical geography) relationships between the components of nature, such as, for example, dependence of the climate of a territory on its geographical situation, shape of its surface and the influence of the oceans, or dependence of the rivers on relief and climate.

The vegetable and animal kingdoms of the parts of the world are examined in relation to climatic conditions existing in various natural zones. Study of the peculiar features of the natural zones of the parts of the world reveals to the pupils the content of the basic geographical law — zonal division according to latitude and distribution of vegetable belts according to altitude in mountains.

When studying the Socialist countries, the successes scored by them in cultural and economic construction will be revealed. When discussing the capitalist countries, considerable attention will be paid to the struggle of working people there. This course should be taught, as far as possible, against the background of the present-day situation. With this objective in view, the teacher will use periodicals and newspapers to attract therefrom information intelligible to the pupils on economic and political developments in the foreign countries.

Practical work envisaged by this course is aimed at developing the skills of the pupils to read ground plots, handle maps of different scales, compile the characteristics of various components of nature on the basis of maps, make up geographical descriptions of individual countries and territories. Weather observations carried out by pupils in turns develop their skill of observing different phenomena of nature and sorting out the information thus collected, and at the same time they help accumulate information about the weather and climate of the region.

To conclude the term of studies in the 6th form, a field trip or an excursion to a botanical garden will be organized to study the dependence of vegetation on specific conditions of existence and acquaint the pupils with the vegetation of different natural zones.

**The course of geography of the U.S.S.R.** is aimed at giving the pupils knowledge of the nature, population, administrative division and characteristic features of the national economy of their country.

While revealing great variety of natural resources of the U.S.S.R. and their use in the various branches of economy, this course acquaints the pupils with different kinds of economic activities of Soviet people, brings up the pupils to love their country and realize their duty to the people and the necessity of training themselves for active work.

Study of the characteristic features of the national economy of the U.S.S.R. envisages that prospects of its development, as laid down in the decisions of the 22nd Congress of the C.P.S.U. and its Programme, should be studied. This will instil confidence in the pupils that the construction of a Communist society will be successfully completed.

The course is divided into four main sections: (1) General Review of the U.S.S.R.; (2) Review of the Union Republics; (3) Brief Economic and Geographical Survey of the U.S.S.R. and Outline of Economic Areas; and (4) Local Region (Territory or Autonomus Republic).

The general review makes it possible for the pupils to study the natural resources of the U.S.S.R., their importance for the national economy, the population, and administrative division of the U.S.S.R., and also gives them an idea of the national economy of the country, key branches of industry and agriculture and means of transportation. Each section of the General Review of the U.S.S.R. includes some information of their own region (geographical situation, relief, climate, inland waters, etc).

In the review of the Union Republics and larger geographical regions of the Russian Soviet Federative Socialist Republic study is made of the peculiar features of the relief, mineral resources, climate, rivers and natural zones. In so doing, the efforts of the Soviet people in exploiting natural resources are revealed.

The characteristics of the population include information about its national composition and the main forms of its economic activity. Knowledge of the latter will help the pupils make a conscious choice of profession on graduating from the eight-year school.

When discussing the larger geographical regions of the Russian Soviet Federative Socialist Republic, their political and administrative division is studied.

The brief economic and geographical survey of the U.S.S.R. sets the task of giving the pupils an idea of the development of Soviet national economy and the way the production capacities are distributed in the country.

The final section of the syllabus, Local Region (Territory or Autonomous Republic), which stipulates the study of the nature, population, economy and towns of the local area, is of great importance for bringing the course of geography of the U.S.S.R. closer to life. As a result of the study of the local lore, direct participation of the pupils in socially useful work on the protection and transformation of local nature, and experience gained in working with the map, considerable information will be accumulated on the nature and economic activities of the population of the local region. All these data are summed up in the form of the geographical characteristics of the region (territory or autonomous republic) by the end of the course of 8th form.

The purpose of the practical work provided for by the course is to improve the pupils' skill in handling the topographical map, making ground surveys by the resection method and plotting a plan of the area adjoining the school. Skill of azimuthal motion is acquired. Experience in reading maps is gained by working with maps of a larger scale than those used in the previous course, and at the same time a more complete geographical characteristic of individual territories is compiled.

The syllabus provides for three excursions. One excursion is aimed at making a more thorough study of a local river — determining its economic importance and possibilities of potential use, as well as at plotting the itinerary. During the second excursion the main types of soil of the local area are studied. The third excursion, which is arranged at the end of 8th form, is to an industrial enterprise to study the economic activities of the local population.

When teaching geography, the teacher should stimulate the pupils' activity in every way. Systematic work with maps should be regarded as one of the most effective means of such stimulation. Maps should be used at every lesson. Use of maps should also be made when fulfilling home assignments. As the pupils master the skill of reading maps, the teacher should see to it that pupils make use in their independent work of geographical maps to acquire new knowledge.

The syllabus provides for a system of work when map assignments gradually become more complicated. Thus, the pupils of 5th form are trained to acquire the skill of using the map to compile descriptions of individual physico-geographical objects, such as mountains, lowlands, lakes and rivers, while in 6th form the pupils describe the components of nature of individual territories, including relief, climate, peculiar features of rivers, vegetation, etc. In the second term of 6th form and in 7th form the pupils are called upon to compile an overall description of the nature of territory, employing the map superimposition method for the purpose. As to 8th form, the syllabus stipulates a new form of work with the map, that is, compiling a geographical description of a territory, which would contain, apart from physico-geographical characteristics, a description of some objects of economic geography, such as railways, cities and key branches of industry.

The syllabus for each year of studies provides for a definite number of geographical names to be learned by the pupils. Some geographical names (rivers, seas, lowlands, etc.) are repeatedly occuring in the syllabus of each year of education, but this does not mean that a repetition study of an object can be confined to showing it on the map. In each course the charasteristics of this object should be supplemented with new data extending the pupils' knowledge of it.

In a similar way, the study of the plan and the topographical map calls for assignments gradually becoming ever more complex. The aim of the elementary course of physical geography is to consolidate the pupils' knowledge and skills of reading a ground plan (determining directions and distances, reading conventional signs and comparing plan images with real objects) and teach them to

represent the ground by plotting the itinerary — which is the most elementary type of plotting.

In the course of the geography of the parts of the world the skill of reading the plans is consolidated by reading town plans.

The study of topography is completed in the course of the geography of the U.S.S.R. when the level of training of the pupils in geography and mathematics makes it possible for the teacher to introduce the ideas of contour line and azimuth. The aim of practical work carried out in 8th form is to make the pupils develop the skill of reading the topographical map (determining directions, distances and co-ordinates on a grade grid accurate to minutes, making a description of relief by contour lines and using conventional signs), making a ground survey by the resection method, and moving by an azimuth.

Apart from geographical and topographical maps, independent work at the lessons should involve the use of textbooks, reference materials and newspapers.

Demonstrations, which make it possible for the teacher to represent complex geographical processes in a simplified form that is conducive to understanding, serve as an important vehicle of stimulation of the pupils when studying physical geography. Demonstrations can be carried out in class-rooms, geography labs, in the field or on a geographical study-grounds of the school.

The geographical study-ground can be used to demonstrate the process of washing of river banks, changes in the rate and direction of flow as a factor of relief, formation of shoals and waterfalls, and similar phenomena. In the field the teacher can stage demonstrations showing that the Earth's surface heats to varying degrees depending on the steepness of slopes, colour of soil, extent of damping, character of vegetation and similar factors.

There are inviting prospects for such types of work at school as would teach the pupils to employ different devices for meteorological and hydrological observations, such as thermometer, barometer, rain-gauge, weather-vane and snow-gauge, and the most elementary equipment used in ground survey.

Observations, that yield much for cognitive activities of the pupils, should take their rightful place in the teaching of geography. Of particular value are long-term

observations that facilitate the study of individual components of nature and economy, and make it easier for the pupils to arrive at conclusions as to the specific features of physico-geographical conditions and economic activities of the population in the local area. Such observations will include observation of weather, a local river or lake, vegetation and such like.

When studying matters of physical geography systematic observations of weather, that are expected to be carried out from 5th to 8th form, are of paramount importance.

From the outset of the school year in 5th form a team of observers will continue meteorological observations started by the pupils in the primary school. When the theme "Weather and Climate" comes up for discussion, observation work should involve all the pupils of the class. This work should be carried out in close contact with the theoretical data being studied and under a syllabus that aims at a gradual complication of topics, to include observations of atmospheric pressure and the amount of precipitation. As a result of the observations carried out in this way, monthly weather reports are compiled.

When studying the course "Geography of the Parts of the World and the Principal Countries", meteorological observations are carried out by a team of observers under the syllabus for 5th form as compulsory extracurricular activity. The results of observations are summed up as a weather report. On the basis of the information thus collected, descriptions of the particular features of the weather in different seasons are made.

Observations called for by the course of the geography of the U.S.S.R. are carried out along the same lines, the only difference consisting in that the information collected is processed and, in particular, the character of masses of air and the cyclonic and anti-cyclonic conditions of weather are determined in a more efficient way and that a more thorough analysis is made of the causes that bring about changes in weather. In 7th and 8th forms use may be made of meteorological recorders, such as a thermograph or barograph.

The meteorological data accumulated by the pupils will be used at the lessons to draw up the characteristic of the climate in the local area.

To make the pupils' knowledge more concrete and boost their interest in geography, a wide use should be made of visual teaching aids, geographical textbooks, popular science and fiction literature. Use at the lessons of information concerning the geography of the local region (territory or autonomous republic), including such things as plans, maps, herbariums, collections of local rocks and minerals, acquires particular significance in the light of the tasks of adapting school education to the new conditions.

The current trend to lay more emphasis on the independent work of the pupils calls for changes in the pattern of the lesson by alotting more time to the study of new material and its consolidation through different exercises in working with atlases, fulfilling assignments on contour maps and doing similar types of work.

Arrangment the excursions envisaged by the syllabus must be regarded as an indispensable requirement of the syllabus. It is extremely desirable that excursions to the local lore museum and exhibitions should be arranged. Each fixed trip and each excursion to an industrial enterprise should be thoroughly worked out, particularly in so far as assignments are concerned for the pupils' independent work in making observations and collecting data for the school's museum or a geography lab.

Assignments and a system of exercises in measurement work in the field, orientation, itinerary survey and similar types of work should be specified for each excursion.

Processing of the information thus collected and its use at the lessons are an indispensable condition for an excursion to be a success.

The syllabus also envisages lessons that should be conducted on the geographical study-grounds of the school and in the field. Such lessons may be conducted for the whole class, or the pupils of the class will be divided into smaller groups, or each pupil will be given an individual assignment. In particular, this method of teaching is applied when organizing the pupils for stationary meteorological and hydrological observations (especially in 7th and 8th forms which are carried out by individual pupils or by small teams).

The programme of excursions, practical topographical work in the field, meteorological observations and study

of the geography of the local region (territory or autonomous republic), provided for by the syllabus, should be extended and supplemented by means of large-scale out-of-class work. An active study of the local nature, of the measures which are undertaken for its transformation and of specific ways of its economic utilization should be the main content of such work. In this connection hiking trips about the native region during school holidays should be practised on a large scale. During such hiking trips the pupils may be asked to fulfil certain jobs that can be offered by local administration (for example, studying the causes of pollution of local rivers and reservoirs, searching for building materials, setting up hydrological stations, etc.). Participation in the fulfilment of such specific assignments will help the pupils to disclose their inclinations and prepare themselves for a conscious choice of their future professions.

## ELEMENTARY COURSE OF PHYSICAL GEOGRAPHY
(70 hours)

*5th FORM*

### Introduction (2 hours)

Subject-matter of physical geography.

Importance of expeditions and observation stations for physical geography.

Arranging daily observations of weather (temperature, cloudiness, precipitation and wind) and keeping a weather calendar.

### Autumn Excursion (3 hours)

Observing the visible horizon.

Familiarizing the pupils with the shapes of surface in the local area.

Waters of the local area. Determining the right and left banks of a river (a stream). Determining the direction and the velocity of the flow of the river. Determining the results of the river's flow. Familiarizing the pupils with the economic use of the waters in their local area.

### The Plan and the Map (10 hours)

Orienting oneself in the field.

Ground plan. Linear scale. Sides of the horizon on the plan. Conventional signs of the plan. An idea of ground survey.

Importance of the plan in economic life.

Geographical map (of the U.S.S.R. and the hemispheres). Its distinction from the plan. Map scales. Representation of directions by lines of meridians and parallels.

Parts of the world and the oceans on the globe and physical map of the hemispheres.

Situation of the U.S.S.R. on the globe and on the map of the hemispheres.

Practical Work

Determining the main and intermediate directions (sides of horizon) in the field by the midday Sun, the North Star or the compass.

Practising the plotting of directions on a chart.

Representing distances on a chart of different scales.

Making an itinerary survey.

Reading a plan on the ground.

Practising determination of directions on the maps of the hemispheres and the U.S.S.R. Practising determination of distances on the map of the U.S.S.R. Starting observations of the midday height of the Sun and the length of the shadow.

Putting down the names of the parts of the world and the oceans on the contour map of the hemispheres.

**Shapes of Land Surface** (8 hours)

Shapes of surface in the local area, and the rocks that make it up.

Main shapes of land surface: plains, mountains. An idea of relative and absolute altitude.

Plains. Distinction of plains as to the character of surface (flat and hilly country) and altitude above sea level (lowlands, heights, plateaux). Their representation on the map. Altitude scale.

Plains: Russian (East European) plain with Middle Russian Hills; West Siberian and Amazon Lowlands; Middle Siberian and Arabian Plateaux.

Mountains (peaks, slopes, mountain ranges, mountain valleys, mountainous countries). Representation of mountains on the map.

Old and young mountains.

Mountains: Urals, Caucasian Mountains, Himalayas, Pamirs, Cordilleras, Andes.

Practical Work

Measuring the height of a hill, a bank of a river, a slope of a ravine, etc., with practice level.

Determining the altitudes of lowlands, plateaux and mountains on physical maps by means of an altitude scale.

Working with the contour maps of the U.S.S.R. and the hemispheres (plotting mountain ranges, and putting down the names of the objects learned).

Describing the plains and mountains by the map (at the teacher's discretion).

## Inland Waters (9 hours)

Waters of the local area.

Subterranean (subsoil) waters and their formation. Wells. Springs. Protection of wells and springs against pollution.

Rivers. River beds, valleys and flood-lands. River system. River basin. Watershed. Feeding of rivers. Dependence of the character of the flow of a river on the relief of the basin (flat-country rivers and mountainous rivers). Rapids and falls. Niagara Falls. Work done by flowing waters. Formation of gorges, river valleys and ravines. Measures to prevent gorges from being formed.

Representation of rivers, rapids and falls on the map.

Most important rivers: Volga with its tributaries Kama and Oka, Dnieper, Don, Ural, Ob with Irtysh, Yenisei with Angara, Lena, Amur, Amu Darya, Amazon, Mississippi with Missouri, Nile, Congo.

Utilization of rivers in national economy. Irrigation. Drainage. Hydroelectric power-stations. Protection of inland waters.

Lakes. Lakes having an outlet and otherwise.

Lakes: Lake Ladoga, Lake Onega, Caspian Sea Lake, Aral Sea Lake, Lake Baikal, Great Lakes of North America.

Marshes. Their drainage.

Artificial reservoirs (canals, ponds, storage lakes).

Representation of lakes, marshes, canals and storage lakes on the map.

The V. I. Lenin Volga-Don canal. Volga storage lakes.

### Practical Work

Observing the reservoirs of the local area freeze and break up their ice.

Observing the thickness of snow cover with the aid of a snow-gauge.

Working with the contour maps of the U.S.S.R. and the hemispheres: putting down the names of the water objects learned.

Describing a river or lake by the map (at the teacher's discretion).

### The World Ocean (5 hours)

The world ocean. The area as compared with that of land. Division into four oceans: Pacific, Atlantic, Indian and Arctic.

Seas. Bays. Straits.

Salinity of the water of the oceans and seas.

Representation of the depths of the oceans and seas on the map.

Movement of water. Sea currents. Warm (North Atlantic) and cold (Labrador) currents. Presentation of currents on the map.

Life in the oceans and seas. Animal and vegetable kingdoms. Sea industries. Navigation.

Seas: Barents Sea, Baltic Sea, Black Sea, Bering Sea, Mediterranean Sea, Red Sea.

Peninsulas: Kamchatka, Crimea, Scandinavia, Hindustan, Arabia.

Islands: Novaya Zemlya, Sakhalin, Greenland, Iceland, Madagascar, Sunda.

Bays: Bay of Biscay, Bay of Bengal.

Straits: Bering Strait, Straits of Gibraltar.

Canals: Suez Canal, Panama Canal.

#### Practical Work

Determining the depths of the oceans and seas on the maps by the depth scale.

Working with the contour maps: putting down the names of oceans, seas, bays, straits, islands, peninsulas.

### The Earth and Its Movement (12 hours)

Stars, planets, comets. The Sun. The solar system and the place of the Earth therein. Dimensions of the Earth and the Sun. Distance from the Earth to the Sun. The

importance of the Sun for life on the Earth. The Moon as the Earth's satellite. Artificial satellites of the Earth.

Soviet people's achievements in space. The historical significance of Soviet cosmonauts' space flights for the exploration of cosmos.

Sphericity of the Earth and its proofs.

The Earth's revolution around its axis. Visible path of the Sun during day-time. Round-the-clock revolution of the Earth, and alternation of day and night. Poles, equator, meridians and parallels. Latitude and longitude.

Variation of the height of the Sun over the year (reference will be made to the information collected during observations).

Annual path covered by the Earth in its revolution around the Sun. Tilt of the Earth's axis. Causes of the alternation of seasons. Contrast in seasons as between the Northern and the Southern hemispheres. Duration of day over different seasons at different latitudes.

Polar day and night.

Polar circles and tropics.

Thermal belts.

### Practical Work

Finding a point on the map with a given latitude and longitude.

Plotting points on the contour map with given coordinates.

Determining the latitude and longitude of a locality shown on the map.

Plotting the boundaries of the thermal belts on the contour maps.

### **Weather and Climate** (12 hours)

Weather in the local area. Basic components of weather (temperature, wind, cloudiness and precipitation).

Atmosphere, its altitude, structure and composition.

Air temperature. Average daily and monthly temperatures. Variations in air temperature over the 24-hour day and the year.

Warming and cooling of air over land and water surfaces.

Dependence of air temperature on altitude above ocean level.

Air pressure. Barometer. Change in pressure as a function of altitude.

Wind, its origin. Direction and velocity of wind. Weather-vane. Work done by wind.

Vapours of water in the atmosphere. Formation of fog and clouds. Atmospheric precipitation (rain, snow, hail, dew, hoarfrost).

Precipitation gauge. Measurement of precipitation.

Weather and its changeability. Weather over seasons in the local area.

Meteorological stations.

Importance of weather forecasts for national economy.

Notion of climate. Dependence of climate on geographical latitude, altitude above sea level, prevailing winds, and on proximity in reference to the ocean.

Climate in the local area.

Characteristic features of climates in the frigid, temperate and torrid zones.

### Practical Work

Observing weather with the aid of instruments during the entire school year. Processing the data collected as a result of the observations: compiling a monthly weather report (plotting a temperature chart, cloudiness diagrams, and days on which precipitation has been registered).

Making a description of weather for a month.

### **Natural Zones** (4 hours)

Relation of vegetation to climate. Dependence of the animal kingdom on climate and vegetation.

Notion of natural zones.

Description of the natural zone in which the school is located.

### **Spring Excursion** (3 hours)

(Itinerary to be different from that used in autumn) Itinerary survey.

Shapes of surface and the waters in the local area. Their economic utilization.

The vegetable and animal kingdoms of the local area.

### **Time for Recapitulation** (2 hours)

## GEOGRAPHY OF THE PARTS OF THE WORLD AND THE PRINCIPAL COUNTRIES

**(104 hours)**

*6th FORM*

### Introduction (1 hour)

Subject-matter of the geography of the parts of the world.

Continents and the parts of the world.

Practical Work

Practice in showing the parts of the world, continents and oceans on the globe and the map of hemispheres. Laying down provisions for the pupils to continue observations of weather.

### Population of the Globe (2 hours)

Population of the globe.

Distribution of population over the globe. Density of population. Races, and their distribution over the parts of the world.

### EUROPE

### General Review (17 hours)

Europe as part of Eurasia. Boundaries, geographical situation, and size of the area. Strongly jagged coastal line as a favourable condition for navigation and construction of ports.

Outline of Europe. Seas, peninsulas and islands of the Arctic Ocean: Barents Sea, **White Sea** [1], **Spitzbergen**, Franz Josef Land, Novaya Zemlya. Seas, peninsulas and islands

[1] Those geographical names which are introduced for the first time are boldtyped.

of the Atlantic Ocean: **Iceland,** Scandinavian Peninsula, Baltic Sea, **Gulf of Finland, North Sea,** British Isles, Bay of Biscay, **Pyrenean Peninsula,** Straits of Gibraltar, Mediterranean Sea, **Apennine Peninsula, Sicily, Adriatic Sea, Balkan Peninsula, Aegean Sea, Dardanelles, Sea of Marmors, Bosporus,** Black Sea, the Peninsula of the Crimea.

High and low tides. High and low tides at the shores of Europe.

Relief. Flat-country relief prevailing in Eastern Europe. The Russian (East European) Plain with the Middle Russian Hills. Variety of relief in Western Europe.

Young and old mountains. The characteristic features of the appearance of the young and old mountains (by reference to the Alpes and the Scandinavian Mountains. Work done by the glaciers. **Pyrenees, Apennines, Carpathian Mountains, Balkans,** Urals.

Earthquakes, eruption of volcanoes (Vesuvius), century oscillations. The areas of earthquakes, volcanoes and geysers in Europe.

The most important deposits of coal (Pechora Coal Fields, Donets Coal Basin, Silesia, Ruhr, the Island of Great Britain), iron ore (the Urals, Krivoi Rog, Kursk Magnetic Anomaly, Scandinavian Peninsula), and oil (Volga — Urals oil fields, Carpathians foothills). Utilization of minerals.

Climate. The influence of western winds and of the warm North Atlantic current on the climate of Europe. Notion of isotherms. Direction of the January and July isotherms on the territory of Europe. Prevalence of the temperate climate: of a maritime variety in Western Europe and of a continental variety in Eastern Europe. Subtropical (Mediterranean) climate of Southern Europe.

Characteristic of the rivers and lakes of Europe in reference to relief and climate. The rivers of Eastern Europe: **Neva, Pechora,** Dnieper, **Don,** Volga with Kama and Oka, Ural, **Severnaya Dvina;** characteristic features of their conditions of flow. The rivers of Western Europe: **Vistula, Oder,** Elbe, **Rhine, Danube;** characteristic features of their conditions of flow. The mountainous rivers of the Alpes and Scandinavian Peninsula.

The lakes of Europe: Lake Ladoga, Lake Onega, **Lake of Geneva.**

Utilisation of rivers and lakes as water-ways and as sources of electric power, water supply and irrigation.

The natural zones of Europe and their location. The characteristic features of the vegetable and animal kingdoms of the tundra, woodland zone (taiga of Scandinavian Peninsula), mixed wood (woods of Central Europe), steppe and Mediterranean subtropics (subtropics of the Mediterranean coast). Vegetation belts according to altitude (reference to the Alpes). Prevalence of landscapes transformed by the economic activities of people. Protection of Nature.

Population. Lack of uniformity in the distribution of population. Prevalence of peoples of the white race. Diversity in national composition.

### Practical Work

Determining the coordinates of the extreme points of Europe. Filling in the contour map of Europe: representing mountains schematically; plotting deposits of minerals; putting down the names of rivers. Determining the direction of the isotherms of January (0°, —10° and +10°) and July (+10° and +20°).

Describing individual elements of nature of Europe by using maps, and comparing them with those of the local area.

## POLITICAL MAP OF EUROPE (18 hours)

### Socialist Countries (10 hours)

**U.S.S.R.** — the first country in the world to have built a Socialist society (capital Moscow). All-out construction of Communism in the U.S.S.R.

**People's Republic of Albania** (capital Tirana).

**People's Republic of Bulgaria** (capital Sophia).

**Hungarian People's Republic** (capital Budapest).

**German Democratic Republic** (capital Berlin).

**Polish People's Republic** (capital Warsaw).

**Rumanian People's Republic** (capital Bucharest).

**Czechoslovak Socialist Republic** (capital Prague).

**Socialist Federative Republic of Yugoslavia** (capital Belgrade).

Fraternal co-operation of countries building Socialism and Communism. Geographical situation; short outline of natural resources and economic activities of the population of the Socialist countries.

### Capitalist Countries (8 hours)

**Great Britain.** Insular situation. Characteristic features of nature (English Lowland, Pennine Chain, Scotland). Maritime climate. Natural resources of the country (coal). Population, main forms of its economic activity. Prevalence of urban population. London, capital of the country.

British Commonwealth, and its composition. Struggle of the peoples of the colonies for their independence.

**France.** Geographical situation. Characteristic features of nature (North French Lowland, Central Plain, Mediterranean Coast). Natural resources. Population, its culture and economic activities. Paris, capital of the country. Colonial possessions. National-liberation movement in the colonies.

**Federal Republic of Germany.** Geographical situation. Natural conditions and minerals. Population and its economic activities. Militarization of economy. Bonn, capital of the country.

#### Map Review

Italy (Rome, the capital); Finland (Helsinki, the capital); Sweden (Stockholm, the capital); Norway (Oslo, the capital); Denmark (Copenhagen, the capital); Iceland (Reykjavik, the capital); Belgium (Brussels, the capital); Netherlands (Amsterdam, the capital); Austria (Vienna, the capital); Switzerland (Bern, the capital); Portugal (Lisbon, the capital); Spain (Madrid, the capital); Greece (Athens, the capital).

#### Practical Work

Practice in showing the boundaries and describing the nature and population of these countries on the political, physical and demographical maps. Plotting the boundaries and putting down the names of these countries and their capitals.

Reading the plans of the biggest cities of Europe. Comparing the territory of the U.S.S.R. with the area occupied by European countries (at the teacher's discretion).

## ASIA

### General Review (15 hours)

Geographical situation and area. Outline and jaggedness of the coastal line.

Oceans and seas washing the coasts of Asia, their specific features. Seas, peninsulas and islands of the Arctic Ocean: **Kara Sea,** Yamal Peninsula, **Taimyr Peninsula, Severnaya Zemlya** (North Land Islands), **Laptev Sea, New Siberian Islands, East Siberian Sea, Chukotskoye Sea, Chukot Peninsula,** Bering Strait Seas, peninsulas and islands of the Pacific Ocean; Bering Sea, Kamchatka Peninsula, **Kuril Islands, Sea of Okhotsk,** Sakhalin Island, Tatar Strait, **Japanese Islands, Sea of Japan, Korea Peninsula, Yellow Sea, East China Sea, Taiwan, Philippine Islands,** Malay Archipelago, **South China Sea, Straits of Malacca.** Seas, bays, peninsulas and islands of the Indian Ocean: **Indo-China Peninsula, Bay of Bengal,** Hindustan Peninsula, **Ceylon, Arabian Sea,** Persian Gulf, Peninsula of Arabia, Red Sea, **Peninsula of Asia Minor.**

High and low tides at the shores of Asia.

Relief of Asia. The world's highest mountains and uplands:

Himalayas, **Tibet, Kunlun-Shan, Hindu-Kuch,** Pamirs, **Tien Shan.** Vast lowlands and plateaux: West Siberian Lowland, Middle Siberian Plateau, Arabian Plateau.

Weathering of rocks (decay of rocks due to fluctuations of temperature, and under the influence of water, air and live organisms). Deep depressions.

Exploration of Central Asia by N. M. Przhevalsky.

Areas of earthquakes, volcanoes and geysers.

Most important deposits of minerals: oil, coal (Kuznetsk Coal Fields, North China), iron ore, gold, diamonds (Eastern Siberia), tin.

Climate. All climatic belts available in Asia: contrast of frigid and torrid, dry and damp places. Role of relief in variations of climate. Monsoons, and their influence upon the climate of Eastern and Southern Asia. Characteristic

features of climate in Northern, Central, Eastern, Southern and South Western Asia.

Characteristic features of the rivers and lakes of Asia in reference to relief and climate. Rivers of Northern Asia (Ob with Irtysh, Yenisei with Angara, Lena), of Eastern Asia (Amur, **Hwang Ho, Yangtze**), of Southern Asia (**Indus, Ganges**) and of South Western Asia (**Tigris** and **Euphrates**). Vast areas with no outlets (Amu Darya, **Syr Darya**). Utilization of rivers for navigation and irrigation.

Lakes: Lake **Balkhash, Issyk-Kul, Lop Nor,** Lake Baikal, Caspian Sea Lake, Aral Sea Lake.

Lay-out of natural zones in reference to climate and relief. Characteristic features of the vegetable and animal kingdoms of Northern, Eastern, Central (nature of Tibet), South Western (nature of Arabian Peninsula) and Southern Asia (nature of Ceylon). Cultured plants that come from Asia. Landscapes transformed by the economic activities of men. Protection of nature.

Population. Lack of uniformity in its distribution. Principal nationalities of Asia. Successful struggle of the peoples of Asia for their liberation.

### Practical Work

Using the map to determine the altitudes above sea level of the highest mountains, plateaux, uplands, lowlands and depressions (at the teacher's discretion).

Comparing one of the areas of Southern Asia with the local area as to climate and vegetation. "Travelling" across the map of Asia along the 100th or 110th meridian and describing the nature of the respective regions.

## POLITICAL MAP OF ASIA (12 hours)

### Socialist Countries (5 hours)

**U.S.S.R.**: Asiatic Part.

**Democratic Republic of Vietnam** (capital Hanoi).

**Chinese People's Republic** (capital Peking).

**Korean People's Democratic Republic** (capital Pyongyang).

**Mongolian People's Republic** (capital Ulan Bator).

Geographical situation; brief survey of natural resources and economic activities of the population of these Socialist countries.

Practical Work

Practice in showing the boundaries and describing the nature and population of the countries on the political, physical and demographical maps. Plotting the boundaries and putting down the names of the countries and their capitals on the contour map.

**Capitalist Countries** (7 hours)

**India.** Geographical situation. Variety of nature: southern slopes of the Himalayas, Indian jungles, Indo-Ganges Lowland, the Deccan Plateau. Natural wealth. Population, variety of national composition. Ancient culture of India. Economic activities of the population. Irrigation. Changes in the life of the population and in the national economy after the liberation from colonial yoke.

Cities: Delhi (capital), Calcutta, Bombay.

Map Review

Indonesia (Jakarta, the capital); Japan (Tokyo, the capital); Burma, Thailand, Ceylon.

Afghanistan. Iraq, Saudi Arabia, Syrian Arab Republic, Yemeni Arab Republic, Pakistan, Iran, Turkey.

Practical Work

Practice in showing the boundaries and describing the nature and population of the countries on the political, physical and demographical maps.

Plotting the boundaries and putting down the names of the countries and their capitals on the contour map.

Processing the data collected during the excursion. Summing up the results of the observations of weather over different seasons.

**A Field Trip and an Excursion to a Botanical Garden** (3 hours)

Study of the adaptability of vegetation to the conditions of existence.

**Time for Recapitulation** (2 hours)

# GEOGRAPHY OF THE PARTS OF THE WORLD AND THE PRINCIPAL COUNTRIES (CONTINUATION)

*7th FORM*

*FIRST TERM*

## AFRICA

### General Review (7 hours)

Geographical situation and area. Outline of the coastal line which has few jags in it. Land boundaries of Africa with Asia. Isthmus of Suez. Suez Canal. Oceans and seas washing the coasts of Africa. Peninsula of **Somali.** Madagascar Isle.

Characteristic features of the relief of Africa: prevalence of plateaux and depressions, lack of large lawlands. Mountains: **Atlas Mountains, Drakensberg Mountains.** Plateaux of Eastern and Southern Africa: **Abyssinia Plateau** (mesas).

Mineral resources: gold, diamonds, uranium, ores of nonferrous metals, oil.

Climate. Africa as the most torrid part of the world. Trade winds, and their influence upon the climate of Africa. Characteristic features of the climate of the equatorial region, the region of periodical rains, the Sahara Desert, subtropical regions of Northern and Southern Africa.

Rivers and lakes of Afrika. Nile, and its peculiar features. Congo, **Zambezi, Niger.** Rapids and falls. Great lakes of Africa, and their origin: **Lake Victoria, Lake Tanganyika.** No outlet basin of **Lake Chad.**

Natural zones, and their location on both sides of the equator. Damp equatorial woods, savannahs and deserts (the nature of the Sahara Desert); subtropics of the North and South of Africa. Cultured plants of the African origin. Squandering of natural wealth by the colonialists.

Population. Peoples inhabiting Africa. Conquest of Africa by Europeans. Characteristic features of the way of life, culture and activities of the African peoples. National-liberation struggle of the African peoples. Formation of independent countries.

### POLITICAL MAP OF AFRICA (2 hours)

#### Map Review

United Arab Republic (capital Cairo). Algerian People's Democratic Republic (capital Algiers). Ethiopia (capital Addis Ababa). Republic of Ghana (capital Accra).

Republic of Guinea (capital Conakry). Republic of Mali (capital Bamako), and other independent countries.

Colonies of Great Britain and Portugal.

Republic of South Africa.

#### Practical Work

Putting down on the contour map the annual isotherm of +20°, directions of trade winds, boundaries of climatic zones. Using the maps to describe the nature of the damp-equatorial woods, savannahs and deserts of Africa. Plotting the boundaries and putting down the names of the independent countries on the contour map.

## AMERICA

### General Review (12 hours)

#### Introduction

Geographical location of America. Isthmus of Panama. North-to-south span of America. Area. Oceans washing America. Discovery of America by Christopher Columbus. Colonization of America by Europeans. Discovery of the north-western shores of America by Russians Gvozdev and Fyodorov.

**North America.** Outline of North America. Seas, peninsulas and islands: Greenland, **Greenland Sea, Hudson**

**Bay, Arctic Archipelago, Aleutian Islands, Alaska Peninsula, Caribbean Sea, Newfoundland, Greater Antilles, Gulf of Mexico, Peninsulas of Florida and California, Labrador.** Sea currents at the coast of North America; **Gulf Stream, Labrador Current.**

Relief. Mountains in the West (Cordilleras) and in the East (**Appalachians**); planes of North America. Major deposits of minerals (coal, oil, ores of ferrous and non-ferrous metals, uranium).

Characteristic features of the climate of North America. Sharp and frequent fluctuations of temperature, and their causes. Influence of relief and sea currents on the climate of the continent. Prevalence of continental climate over a greater part of North America. Subtropical climate in the South. Hurricanes and dust storms, and their origin.

Biggest rivers and lakes: Mississippi with Missouri, **Colorado,** Great Lakes, **Niagara River,** Niagara Falls. Utilization of rivers and lakes as a source of electric power and for navigation.

Location of natural zones. Characteristic features of the vegetable and animal kingdoms of the zone of congelation, tundra, wood zone, prairies, deserts, dry and humid subtropics.

**South America.** Outline of South America, with its coastal line being little indented. Island of **Tierra del Fuego, Strait of Magellan.**

Relief. Highest mountains (Andes) in the West, vast lowlands and uplands in the East and the North of the continent. Amazon and **La Plata Lowlands, Plateau of Brazil.** Deposits of minerals (oil, ores of non-ferrous and ferrous metals).

Characteristic features of the climate. Prevalence of equatorial and variably damp tropical climates over a greater part of the continent. Subtropical climate region. Temperate climate regions. Causes of dry climate on the Pacific coast.

Rivers. Basin of the Amazon River, the biggest on the globe. Rivers: **Orinoco** and **Parana.**

Natural zones: humid equatorial woods of the Amazon Lowland, savannahs (llanos of Orinoco, campos of Plateau of Brazil), steppes (pampa of the La Plata Lowland). Atacama Desert.

Cultured plants that come from North and South America.

Squandering of the natural resources of America.

Population of North and South America, composition as to races and nationalities, and distribution over the continents. Status of the aboriginal population (Red Indians) and the Negroes moved from Africa. Struggle for national independence in the countries of Latin America.

### Practical Work

Using the map to determine the north-to-south and west-to-east spans of America in terms of degrees and kilometres. Comparing the climates of North America and Europe, South America and Africa.

"Travelling" over the maps of North and South America in an assigned direction and describing the nature.

### POLITICAL MAP OF AMERICA (4 hours)

**United States of America**. Geographical situation. Variety of natural conditions. Region of the Cordilleras, plateau of the prairies, Mississippi Lowland. Natural resources. Population, and its composition as to nationality. Racial discrimination. The USA — the mightest capitalist country.

Aspirations of the American imperialists for world domination.

The USA as the main stronghold of international reaction.

Cities: Washington, capital of the country, New York, Chicago, San Francisco.

**Republic of Cuba.** The first Socialist country on the American continent. Capital Havana.

Geographical situation; brief survey of natural resources and economic activities of the population.

### Map Review

Canada, Mexico, Brazil, Argentina, Chile.

## Practical Work

Practice in showing the boundaries and describing the nature and population of the countries enumerated above, on the political, physical and demographical maps. Plotting the boundaries and putting down the names of the countries and their capitals on the contour map. Using the map to make a basic geographical description of an American country (at the teacher's discretion).

## AUSTRALIA AND OCEANIA (4 hours)

**Australia.** Geographical situation and area. Coastal line indented. Origin of atolls. Great barrier reef. Characteristic features of the relief of the continent. Influence of trade winds and monsoons on climate. Prevalence of dry desert climate in Western and Central Australia. Damp climate in Eastern and Northern Australia.

Rivers and lakes. Their characteristic features.

Natural zones. Peculiar features of the vegetable and animal kingdoms. Species of plants and animals existing in Australia and vanished elsewhere.

Population of Australia: Australians and Europeans. Status of the aboriginal population. Main forms of economic activity of the population.

Commonwealth of Australia as a dominion of Great Britain. Cities: Canberra (the capital), Sydney, Melbourne.

**Oceania.** Islands that make up the Oceania: New Zealand, New Guinea and Polynesia.

N. N. Miklukho-Maklai's travels to New Guinea.

## ANTARCTIC (2 hours)

Discovery of the Antarctic by a Russian expedition headed Bellingshausen and Lazarev. Expeditions to the South Pole headed by R. Amundsen and R. Scott. Characteristic features of the nature of the South Pole continent. Mainland ice. Pole of cold. Activities of Antarctic stations, and their importance for science. Whaling industry in the Antarctic.

**Time for Recapitulation** (3 hours)

## GEOGRAPHY OF THE U.S.S.R.[1] (141 hours)

*7th FORM*

*SECOND TERM*

### Introduction (1 hour)

The **U.S.S.R.** as the world's first country of Socialism, that has entered the period of an all-out construction of Communism. Place of the U.S.S.R. in the present-day world (territory, population, natural resources, industry and agriculture). Variety of natural conditions and natural resources of the U.S.S.R. Subject-matter of the geography of the U.S.S.R.

The U.S.S.R. as the stronghold of peace and democracy.

Practical Work

Laying down provisions for the pupils to continue weather observations, in a rota system.

### GENERAL REVIEW OF THE U.S.S.R. (32 hours)

#### Geographical Situation and Boundaries of the U.S.S.R. (2 hours)

Geographical situation of the U.S.S.R. Border countries. Characteristic of the sea and land borders of the U.S.S.R. Time difference on the territory of the U.S.S.R.

Geographical situation of the local region (territory or autonomous republic) on the map of the U.S.S.R.

Practical Work

Determining the co-ordinates of the extreme points of the U.S.S.R. and the distances between them in longitude and latitude in terms of degrees and kilometres. Determining the latitude and longitude of the area in which the local school is situated. Plotting the boundaries of the

[1] Those geographical names which are introduced for the first time are boldtyped.

U.S.S.R. and putting down the names of the border states on the contour map.

### Seas of the U.S.S.R. (4 hours)

The U.S.S.R. as a great naval power. Physico-geographical peculiarities of the seas of the Arctic Ocean (White Sea, Barents Sea, Kara Sea, Laptev Sea, East Siberian Sea, Chukchi Sea), the Pacific (Bering Sea, Sea of Okhotsk, Sea of Japan), and the Atlantic Ocean (Black Sea, Azov Sea, Baltic Sea with its gulfs), the Great Northern Water-Way, and its significance for the national economy of the U.S.S.R. and for the cultural development of the peoples of the Northern regions. Currents of the Atlantic and the Pacific Oceans at the shores of the U.S.S.R. The Caspian Sea Lake.

Islands and peninsulas of the U.S.S.R. Straits (Neck of the Bering Sea, Kara Gates, Vilkitski Strait, Bering Strait, Tatar Strait).

Importance of the seas of the U.S.S.R. for navigation and sea industries. Achievements of Soviet scientists in the exploration of the Arctic.

#### Practical Work

Plotting on the contour map the directions of sea currents, the limits of freezing of the seas of the U.S.S.R. and of the Great Northern Water-Way. Giving a map characteristic of one of the U.S.S.R. seas from the point of view of physical geography (at the teacher's discretion).

### Relief and Minerals of the U.S.S.R. (5 hours)

Notion of the contour line. Topographical map.

General characteristic of the relief of the U.S.S.R.: vast plains (East European Plain, West Siberian Lowland, Turan Lowland, Middle Siberian Plateau). Southern and Eastern mountain belts (Caucasian Mountains, Pamirs, Tien Shan, Altai, Sayan Mountains, Baikal Mountains, Urals, mountains of the Far East). Areas of earthquakes and volcanic phenomena. Causes of volcanic phenomena.

Variety of minerals and their main deposits. Protection of mineral wealth.

Relief and minerals of the local region (territory or autonomous republic).

Practical Work

Describing the relief by the topographical maps.

Building up a collection of the minerals to be found in the local area and describing their uses in national economy.

**Climate of the U.S.S.R.** (5 hours)

Climate-forming factors: geographical latitude, location in relation to the ocean, relief, masses of air and their movement.

Masses of air of different origin, and their influence on the climate of the U.S.S.R. Influence of the Atlantic Ocean. Prevalence of western winds. Cyclons. Influence of the Arctic and of the continental expanses of Asia. Anti-cyclons. Growth of continentality from West to East. Peculiar features of the January and July isotherms. Distribution of precipitation on the territory of the U.S.S.R. Need for irrigation and drainage in certain parts of the U.S.S.R.

Variety of climate of the U.S.S.R. and its importance for agriculture, transportation and the life of the population.

Climate in the local region (territory or autonomous republic).

Practical Work

Determining annual amplitudes of temperature and mean amount of precipitation at latitude 60° every 30 degrees of longitude. Compiling a weather report for individual seasons on the basis of year observation data collected by the school. Making up a characteristic of climate in individual territories of the U.S.S.R. (at the teacher's discretion).

Collecting information about the thickness of the layer of snow in a small area.

**Inland Waters of the U.S.S.R.** (3 hours)

The U.S.S.R. and its rivers. Influence of relief on the flow. Notion of river gradient. Influence of climate. River sources. Notion of the annual discharge of a river. Basins of the rivers of the Arctic, Pacific, Atlantic Oceans and

of no-outlet areas: Dnieper, Don, Ob, Yenisei, Lena, Amur, Volga. Importance of rivers for the construction of hydro-electric power-stations, transportation, irrigation and fishing. Transformation of rivers. Canals: White Sea-Baltic Canal, Moscow Canal, V. I. Lenin Volga-Don Canal, and their importance for setting up a comprehensive water-way system of the U.S.S.R.

Types of lakes according to their origin. Importance of the biggest lakes of the U.S.S.R. for fishing. Protection of inland waters. Inland waters of the local region (territory or autonomous republic).

Practical Work

Working with the contour map: plotting a watershed between the main basins of the biggest rivers.

Compiling map characteristics of individual rivers of the U.S.S.R. (at the teacher's discretion).

**Natural Zones of the U.S.S.R.** (4 hours)

Interconnection of relief, climate, soils, vegetation and animal kingdom.

Soils of the U.S.S.R. and their main types. Founder of the teaching of natural zones V. V. Dokuchayev. Situation of the natural zones on the territory of the U.S.S.R.: zone of congelation, tundra, woods, steppes, deserts, subtropics. Development of virgin and fallow lands. Protection of Nature. Preserves.

Soils, vegetation and animal kingdoms of the local region (territory or autonomous republic).

Practical Work

Studying the soil cross-section of the local area. Building up a collection of soil samples. Studying the provisions aimed at improving the fertility of the soils of a collective farm (state farm).

**Population of the U.S.S.R.** (2 hours)

Population of the U.S.S.R. as compared with the biggest countries of the world. Increase in population. Density of population. Varieties in the density of population on the territory of the U.S.S.R. Urban and rural population. Expansion of towns.

My town (village).

The U.S.S.R. as a multinational state. Peoples inhabiting the Soviet Union.

Growth in the living and cultural standards of the peoples of the U.S.S.R.

Practical Work

Plotting a diagram of comparative numerical strength of population as per each Union Republic.

**Administrative Map of the U.S.S.R.** (2 hours)

The Soviet Union as a fraternal commonwealth of fifteen Soviet Socialist Republics. Their location on the map. Moscow, the capital of the U.S.S.R.

Administrative division of the U.S.S.R. Union and autonomuos republics, autonomous regions, national areas, territories and regions, districts, and village Soviets.

Moral and political unity of the peoples of the U.S.S.R.

Practical Work

Plotting the boundaries of the Union Republics on the contour map, showing their capitals.

**National Economy of the U.S.S.R.** (5 hours)

Notion of the national economy of the U.S.S.R. Planned organization of national economy. Key branches of national economy: industry, agriculture, transport. The U.S.S.R. as a powerful Socialist industrial country. Rational utilization of the natural resources in industry and of the soil and climatic conditions in agriculture.

The plan for the development of the U.S.S.R. national economy in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

**Spring Excursion**

(to the local river or lake at the end of the 7th year of education) (3 hours)

Determining the width, depth and rate of flow of the river; measuring the relative altitude of a hill or slopes on the ground.

### Practical Work

Calculating the river output, representing the relief (hill or depression) by the contour line method (using the data collected during the excursion). Tracing the cross-section of the bed of the local river or of the hollow of the lake.

*8th FORM*

**Autumn Excursion**
(3 hours at the beginning of the 8th year of education)

Taking monoliths of the basic types of soil in the local area and samples of soil layers.

Topographical survey of the ground, using the direct resection method.

**Recapitulation of the Section "General Review of the U.S.S.R."** (1 hour)

## REVIEW OF THE U.S.S.R. BY THE UNION REPUBLICS
(53 hours)

## RUSSIAN SOVIET FEDERATIVE SOCIALIST REPUBLIC
(31 hours)

### General Characteristics of the R.S.F.S.R.
(5 hours)

Geographical situation. Boundaries.

The R.S.F.S.R. as the first among the equal Union Republics as to territory, population, natural resources, industry and agriculture.

Variety of natural conditions and natural resources: their importance for the development of national economy. Special importance attached to the development of the eastern regions of the R.S.F.S.R.

### Practical Work

Plotting the boundaries of the Russian Soviet Federative Socialist Republic on the contour map.

## European Part of the R.S.F.S.R. (9 hours)

### Geographical Situation

Basic features of the structure of relief. East European Plain. Influence of ancient glaciation on its surface. Ravined relief of the central part of the East European Plain. **Dvina — Pechora, Oka — Don** and **Caspian Lowlands,** and their characteristic features.

**Valdai Hills,** Middle Russian Upland, **Volga Upland, Stavropol Upland** and **Timan Mountain Range.**

Mountains: the Caucasian Mountains and **Khibini Mountains.**

Distribution of minerals and their utilization: oil and gas (the Volga-Ural region, northern foothills of the Caucasus), coal (the Pechora Coal Fields and the eastern part of the Donets Basin), iron ore (the Kursk Magnetic Anomaly), apatites and nephelines (the Khibini), peat and salts (the Baskunchak lake).

A. E. Fersman, explorer of the Khibini Mountains.

Climatic distinctions between the north-western, north-eastern, central and south-eastern parts. Influence of Arctic, Atlantic and continental masses of air on the condition of weather.

Rivers and lakes, their feeding and conditions of flow. Neva River. Lakes: Ladoga and Onega. North Dvina. Pechora. Greater Volga (tributaries, water storage lakes and canals). Don, **Kuban, Terek.** All-round utilization of inland waters in national economy.

Natural zones on the territory of the European part of the R.S.F.S.R.: tundra (Bolshaya Zemlya), taiga (Karelia), mixed wood (Meshchera), steppe (Kuban). Timber resources. Alteration of the natural conditions of the European part of the R.S.F.S.R. through the activities of the population. Measures to deal with erosion.

Peoples inhabiting the European part of the R.S.F.S.R. Administrative division. Great variety in economic activity of the population (industry, agriculture, animal husbandry, forestry, fishing).

Cities: **Moscow** (the capital of the country), **Leningrad, Gorky, Kazan, Kuibyshev, Saratov, Volgograd, Rostov-on-Don, Krasnodar, Ryazan, Arkhangelsk, Murmansk.**

Practical Work

Drawing up a characteristic of the natural conditions of a region (territory of autonomous republic) of the European part of the R.S.F.S.R. (at the teacher's discretion), using the maps of the atlas for the purpose.

Putting down on the contour map the biggest cities, most important water-ways, distribution of the most important deposits of minerals.

**Urals** (3 hours)

Geographical situation.

Relief.

Abundance and variety of minerals: ores of ferrous metals (**Magnitnaya Mountain** and **Blagodat Mountain**), ores of non-ferrous metals, semiprecious stones, salts (**Solikamsk**), oil; their importance for national economy. **Ilmen** preserve.

Climate of the Urals, and its peculiar features.

Rivers: Ural, Kama with **Belaya** and **Chusovaya.**

Nature of the Northern, Central and Southern Urals. Conditions for development of agriculture.

Population, and its composition as to nationality. Administrative division. Economic activity of the population (industry, agriculture, forestry).

Cities: **Sverdlovsk, Chelyabinsk, Magnitogorsk, Ufa, Perm.**

Practical Work

Familiarization with samples and identification of the most important rocks and metal ores. Charting a diagram of the economic utilization of minerals found in the Urals.

**Western Siberia** (4 hours)

Geographical situation.

Relief. West Siberian Lowland and Altai. Siberia's highest mountainous country. Kuznetsk **Ala Tau.**

Minerals. Coal of the Kuznetsk Coal Fields. Natural gas. Ores of ferrous and non-ferrous metals. Peat. Utilization of minerals in national economy.

Climate of Western Siberia. Western Altai as the most humid area of Siberia.

Rivers and lakes, sources of their feeding and their conditions of flow. Ob and Irtysh. **Vasuganye Plain.** Abundance of small lakes in the southern areas of the Plain.

Importance of the rivers of Western Siberia for navigation and generation of power.

Natural zones: tundra (Yamal), taiga (Narym), forest-steppe, and steppe (Barabinsk).

Areas of development of virgin and fallow lands. Conditions for development of agriculture.

Vegetation belts according to altitude in Altai.

Peoples inhabiting Western Siberia, national composition of the population. Uneven distribution. Administrative division.

Economic activity of the population (industry, agriculture, animal husbandry, hunting, fishing).

Cities: **Novosibirsk, Omsk, Barnaul, Tomsk, Kemerovo, Novo-Kuznetsk.**

Practical Work

Plotting the distribution of minerals, cities and communication routes of Western Siberia on the contour map.

**Eastern Siberia** (4 hours)

Geographical situation.

Relief of Eastern Siberia. Middle Siberian Plateau, and peculiar features of its structure. Mountainous countries: the Sayan Mountains, **Mountains of the Baikal area, Stanovoi Range, Verkhoyansk Range, Cherski Range.**

Abundance of minerals coal, iron ore, diamonds, gold; nickel ore, graphite, and their utilization in national economy. V. A. Obruchev, explorer of Eastern Siberia.

Continental climate of extremes. Prevalence of anticyclonic weather. Eternal congelation, fossil ice.

Feeding and conditions of flow of the rivers of Eastern Siberia. Yenisei with Angara, Lena with Aldan, Kolyma. Lake Baikal. Importance of the rivers of Eastern Siberia for navigation and generation of power. Biggest hydroelectric power-stations.

Natural zones: tundra (Taimyr), taiga (Yakutsk), steppes to the east of the Baikal Lake (Trans-Baikal region). Recovery of some species of the animal kingdom and enrichment, thereof with new ones.

Peoples inhabiting Eastern Siberia. Administrative division. Economic activity of the population (industry, agriculture, forestry, hunting and fishing).

Cities: **Krasnoyarsk, Irkutsk, Chita, Ulan-Ude, Yakutsk, Norilsk.**

Practical Work

Representing the mountain ranges schematically, and plotting the boundaries of the eternal congelation zone and of the deposits of minerals on the contour map.

**Far East** (4 hours)

Geographical situation.

Characteristic of surface. Mountains: **Kolyma Mts., Djugdjur Mts., Bureya Mts., Sikhote Alin; Kamchatka Range**. Volcanoes of Kamchatka and Kuril Islands. Hot springs and geyers of Kamchatka. Lowlands of the Far East.

Minerals: oil (Sakhalin), coal, iron ore, gold, and their utilization in national economy.

Variety of climate. Regions of mansoon climate.

Rivers of the Far East: Amur with **Ussuri.** Dependence of their river-head on the monsoon climate. Utilization of the rivers in national economy.

Variety of the nature of the Far East. Ussuri taiga. Acclimatization and recovery of valuable game.

Role of the Russian explorers S. Dezhnev and E. Khabarov in the discovery of the Far East.

Peoples inhabiting the Far East. Administrative division. Economic activity of the population. Role of sea transport in national economy.

Cities: **Khabarovsk, Komsomolsk, Petropavlovsk-Kamchatski, Vladivostok, Magadan.**

Practical Work

Plotting the seas, mountain ranges, mineral deposits, cities and communication routes on the contour map.

**UKRAINIAN AND MOLDAVIAN SOVIET SOCIALIST REPUBLICS** (3 hours)

Geographical situation and boundaries.

Characteristic of surface: alternation of uplands and lowlands on the territory of the Ukraine and Moldavia **(Volhynia-Podolsk Upland, Black Sea Lowland), Donets Mountain Ridge. The Carpathians** and **mountains of the Crimea.**

Minerals: coal (Donets Basin), iron and manganese ores, natural gas, oil, salts, and their importance for national economy.

Moderately continental climate. Climate of the south coast of the Crimea. Climate of the foothills and mountainous country of the Carpathians. Growth of aridity as one moves to the eastern and southern parts of the Ukraine. Droughts and arid winds, and measures to deal with them.

Characteristic of the river system. **Dniester**, Dnieper, Northern Donets, mouth of Danube. Utilisation of the rivers in national economy.

Natural zones. South coast of the Crimea. Favourable conditions for development of agriculture. **Askania-Nova** preserve.

Population, its national composition and economic activity (industry, agriculture, animal husbandry, fishing). Orchards and vineyards of the Ukraine and Moldavia. Health resorts of the Ukraine. Construction of hydro-electric power-stations, water-storage lakes and irrigation canals.

Cities: **Kiev** (the capital of the Ukraine), **Kishinev** (the capital of Moldavia), **Kharkov, Donetsk, Lvov, Odessa, Sevastopol.**

Practical Work

Plotting the relief, mineral deposits and cities of the Ukraine on the contour map.

**BYELORUSSIAN SOVIET SOCIALIST REPUBLIC** (2 hours)

Geographical situation. Boundaries.

Relief. Meraine ridges with lake hollows in the north, and vast marshy depression in the south (Polesie).

Minerals: peat, building materials, salts.

Climate. Absence of sharp fluctuations of temperature over seasons.

River system: upper reaches of the Dnieper with its tributaries (**Berezina** and **Pripet**). Drainage of marshes.

Variety of nature. Protection of Nature. **Byelovezhskaya Pushcha** (preserve).

Conditions for development of agriculture.

Population, and its economic activity (industry, agriculture, animal husbandry, forestry).

Cities: **Minsk** (the capital of the Republic), **Gomel, Vitebsk.**

Practical Work

Plotting the cities and water-ways on the contour map.

## BALTIC UNION REPUBLICS: ESTONIAN, LATVIAN and LITHUANIAN S.S.R.s. (3 hours)

Geographical situation and boundaries.

Present-day relief, and traces of ancient ice-forming processes. Dunes.

Minerals (combustible shales, peat, building materials).

Climate. Influence of the western sea masses of air on climate.

Rivers: **Western Dvina** (Daugava). **Niemen. Lake Chudskoye.**

Variety of nature. Riga sea coast. Recovery of timber resources.

Population, its composition as to nationality, and economic activity. Utilization of the resources of the Baltic Sea. Health resorts of the Baltic coast.

Capitals of the Republics: **Tallin, Riga, Vilnius.**

### Practical Work

Drawing up a characteristic of a Baltic Republic (at the teacher's discretion), using the maps of the atlas for the purpose.

## UNION REPUBLICS OF TRANSCAUCASIA: GEORGIAN, AZERBAIJAN and ARMENIAN S.S.R.s. (5 hours)

Geographical situation. Boundaries. Importance of seas in the west and in the east.

Variety of relief: **Greater Caucasus, Armenian Elevation**; mountains of Smaller Caucasus, Suram Mountains. Lowlands of **Kura** and **Kolkhida.**

Minerals: oil, manganese, copper and iron ores, coal, building materials. Mineral springs, and their medicinal value.

Subtropical climate of Transcaucasia. Moist (Colchis and **Lenkoran**) and dry subtropics. Climate of the high-altitude region of the Caucasus. Glaciers of the Caucasus, and their importance for feeding the rivers.

River system: system of Kura and **Rioni. Lake Sevan.** Utilization of the rivers and lakes in national economy.

Vegetation belts according to altitude in the mountains of the Greater Caucasus and the Armenian Elevation. Preserves of the Caucasus. Nature of the Kolkhida and Kura Lowlands. Conditions for development of agriculture.

Population. Variety of national composition. Economic activity of the population; industry, agriculture (horticulture and viticulture, tea and citrus plantations, growing of subtropical and tropical plants), ammal husbandry.

Capitals of the Republics: **Tbilisi, Baku, Erevan.**

Practical Work

Drawing up a characteristic of a Union Republic of the Transcaucasia (at the teacher's discretion), using the maps for the purpose.

Plotting the boundaries of the Republics and their relief, minerals and cities, on the contour map.

### KAZAKH SOVIET SOCIALIST REPUBLIC (3 hours)

Geographical situation. Boundaries.

Characteristic features of relief: prevalence of elevations **(Turgai tableland, Kazakh small-mound region, Ust-Urt Plateau)**, availability of vast lowlands **(Turan** and **Caspian Lowlands).** Mountains of the South East.

Discovery and industrial exploitation during the years of Soviet power of the richest mineral deposits: coal **(Karaganda)**, iron ore, non-ferrous metals, oil, phosphorites.

Dry continental climate of extremes.

Characteristic features of rivers and lakes. Rivers: Ural, Syr Darya, **Ili,** Irtysh. Lakes: Aral Sea Lake, Lake Balkhash. Utilization of flowing and subterrenean waters in the national economy of the Republic.

Natural zones: black-earth steppes, arid steppes and deserts. Development of virgin land.

Population, its composition as to nationality, and economic activity (industry, cattle-breeding, agriculture).

Cities: **Alma-Ata** (the capital of the Republic), **Karaganda, Balkhash, Ust-Kamenogorsk, Tselinograd.**

Practical Work

Plotting the distribution of minerals, virgin land development areas and cities of Kazakhstan on the contour map.

### UNION REPUBLICS OF CENTRAL ASIA: UZBEK, TURKMEN, KIRGHIZ and TADJIK S.S.R.s. (6 hours)

Geographical situation. Boundaries.

Variety of surface: mountainous countries **(Kopet Dagh,** Pamirs, Tien Shan), intermountaine valleys (Fer-

ghana). Turan Lowland. Mountains of Central Asia as regions of the biggest glaciers (**Glacier of Fedchenko**).

P. P. Semyonov-Tien-Shansky, explorer of Central Asia.

Abundance of minerals: coal, oil, sulphur, natural gas, salts (Kara Bogaz Gol), and their utilization in national economy.

Climate of the Turan Lowland, foothills and mountains.

Peculiar features of the rivers of Central Asia (Syr Darya, Amu Darya, **Zeravshan, Murghab**), and their utilization in national economy. Subterranean waters, and their importance for development of the Republic's national economy. Irrigation systems and canals. Lake Issyk-Kul.

Natural zones. **Kara Kum** and **Kyzyl Kum Deserts.** Formation of sand-hills. Oases of Central Asia. Vegetation belts according to altitude in the mountains. Conditions for development of agriculture. Population, its composition as to nationality and economic activity (cotton growing, cattle-breeding, horticulture, industry).

Capitals of the Republics: **Tashkent, Ashkhabad, Frunze, Dushanbe.**

### Practical Work

Drawing up a geographical description of a Union republic of Central Asia (at the teacher's discretion), using the maps for the purpose.

## BRIEF ECONOMIC AND GEOGRAPHICAL SURVEY OF THE U.S.S.R. (27 hours)

### Introduction (2 hours)

The structure of Soviet national economy; its difference from the structure of national economy in tsarist Russia.

The advantages of the Socialist system of economy over the capitalist system.

The principles governing the distribution of Socialist production capacities. Changes in the geographical distribution of these capacities.

The basic economic task of the U.S.S.R. and the rates of production increase necessary to carry it out.

### Natural Resources of the U.S.S.R. (2 hours)

The importance of natural resources for developing Soviet national economy. Economic and geographical estimates of Soviet natural resources. To what extent they

meet Soviet demand as compared with those in other major states.

Soviet land resources. To what extent they are being put to use and the prospects of virgin-land development. Timber resources. Fish resources. Restoration and protection of Soviet natural resources.

### Labour Resources of the U.S.S.R. (2 hours)

People as the basic productive force in human society. Notion of labour resources. The importance of labour habits and production experience of the population for developing national economy. Energy consumption per worker in the U.S.S.R. The problem of labour resources to reclaim eastern areas of the U.S.S.R.

### The Geography of the Heavy Industry of the U.S.S.R. (11 hours)

The structure of Soviet industry.

The role of heavy industry in Soviet national economy. Priority development of means of production.

Energetics. Its significance in national economy.

Coal extraction. Coal-mining basins: Donbas, Kuzbas, Karaganda, Pechora. Open-cast basins. Self-cost of coal mining in different areas.

Oil extraction. Leading oilfields: Volga-Ural, Baku. Their comparative value as regards extraction and self-cost. Oil pipelines.

Natural gas extraction. Basic deposits: in Uzbekistan, the Stavropol Territory, Trans-Volga region, the Carpathians. Gas pipelines. Comparative self-cost of coal, oil and natural gas.

Hydropower resources. Estimates of the economical and geographical value of the hydropower resources of the major rivers of the U.S.S.R. The importance of electric power for different branches of Soviet national economy. Electrification as a basic prerequisite for building a material and technical basis for Communism.

Thermal electric power-stations operating on coal, peat and natural gas. Hydropower stations. The specific importance of big thermal electric power-stations. Atomic power-stations. The basic power grids. Self-cost of electric energy at power-stations of different kinds.

Prospects for the development of Soviet energetics in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Ferrous metallurgy. Its importance in national economy. Major, minor and casting metallurgy. Iron and steel combines, their production links. Basic metallurgical areas: South, Urals, Siberia and Kazakhstan. Their access to power sources, ore deposits, coal basins, water resources, metal-consuming areas.

Principles governing the distribution of ferrous metallurgy enterprises.

Non-ferrous metallurgy. Its importance for national economy. Distribution of enterprises for the production of copper, lead, zinc and aluminium according to the deposits of raw materials, fuel and power. Basic areas producing non-ferrous metals: the Urals, Kazakhstan, Siberia, the Caucasus.

Prospects for developing metallurgy in the U.S.S.R. in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Machine-building. Its importance for national economy. Modern, big machine-building plant and its productive links. Basic branches: machine-tool building, instrument-making for other industries, power-engineering equipment, farming machinery, transport equipment. Principles governing the distribution of different branches of machine-building. Specialization and co-operation in production. Basic machine-building centres; their links with the deposits of raw materials, power-stations, and districts consuming their produce.

Prospects for developing machine-building in the U.S.S.R. in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Chemical industry. Its importance for national economy. Demands levelled by various branches of the chemical industry with regard to the raw materials, fuel, power supply, and to the customers. Various branches of the chemical industry. Major chemistry. Output of mineral fertilizer. The chemistry of organic cynthesis. The connections of the chemical industry with other branches of national economy. Combined production. The geographical distribution of the chemical enterprises. Prospects for developing chemical industry in the U.S.S.R. in accordance

with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Timber industry. Its importance for national economy. Basic areas of timber felling and woodworking. Prospects for developing the timber industry in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Heavy industry enterprises in the local area (region, territory or autonomous republic).

Practical Work

Drawing up a short economical and geographical characteristic of a branch of the Soviet heavy industry (at the teacher's discretion), using the maps of the atlas for the purpose.

**The Geography of the Agriculture of the U.S.S.R.**
(4 hours)

The importance of agriculture in the national economy of the U.S.S.R. Territories under cultivation: their geographical characteristics and value. The structure of Soviet agriculture.

Socialist reorganization of agriculture. Its modern standards. Mechanization, electrification and chemicalization.

Geographical outline of the basic areas growing cereals, industrial crops and fodder crops. Development of virgin land. The distribution of the basic branches of animal husbandry. Links between land cultivation and animal husbandry. Specialization of Soviet agriculture according to zones. Prospects for developing Soviet agriculture in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

Agricultural specialization in the local area (region, territory or autonomous republic).

Practical Work

Drawing up a short economical and geographical characteristic of an important zone of specialization of U.S.S.R. agriculture (at the teacher's discretion) using the maps of the atlas. Drawing a chart of the links binding agriculture with industry.

**The Geography of the Light and Food Industries of the U.S.S.R.** (3 hours)

The importance of the light and food industries in national economy. The links with agriculture and the heavy industry.

Textile industry. Its basic branches and distribution.

Food industry. Its basic branches. Principles governing the distribution of the food industry enterprises. Basic food industry centers. Prospects for the development of the light and food industries in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

The light and food industry enterprises in the local area (region, territory or autonomous republic).

**The Geography of the Transport of the U.S.S.R.** (3 hours)

Socialist transport and its role in national economy. The priority of railway transport in the U.S.S.R. The pattern of railway lines. New railway lines. Electrification of railway lines.

River transport and its importance. Canals: Mariinsk Canal, Moscow Canal, White Sea-Baltic Canal, V. I. Lenin Volga-Dou Canal. Volga and its reconstruction. The importance of Siberian rivers as transport water-ways.

Sea transport and its importance. The Great Northern Sea Route. Modern sea ports. The major ports: Leningrad, Kaliningrad, Murmansk, Odessa, Vladivostok.

Motor transport. Air transport.

Prospect for the development of the means of transportation in accordance with the decisions of the 22nd Congress of the C.P.S.U. and the Party Programme.

The geography of transport in the local area (region, territory or autonomous republic).

Practical Work

Drawing diagrammic maps of the basic transport routes indicating the main directions of the goods traffic and the most important trans-shipping points.

**ECONOMIC AREAS OF THE U.S.S.R.** (3 hours)

Economic areas as the basis for economic planning of the national economy of the U.S.S.R. Specialization and composite development of the economy of each area. Major (basic) economic areas and economic (administrative) areas. Division of the U.S.S.R. into major (basic) economic areas.

## LOCAL REGION (TERRITORY OR AUTONOMOUS REPUBLIC)
(16 hours)

Geographical situation, area and boundaries.

General characteristic of relief. Different shapes of surface. Minerals, and their importance for national economy.

General features of climate. Atmospheric pressure and prevailing winds. Temperature of the warmest and the coldest months. Cloudiness and atmospheric precipitation. Peculiar features of winter, spring, summer and autumn.

Duration of the frost-free period.

Character and conditions of flow of the local rivers. Lakes, water-storage reservoirs, marshes. Utilization of inland waters in the economic activities of the population.

Subsoil waters and their importance for national economy. Major types of soil. Measures to improve the fertility of soil. Vegetation. Measures to protect the woods. Animal kingdom. Protection and recovery of valuable game.

Population, its way of life and culture. Chief branches of industry and agriculture. Communication routes.

Construction of new industrial enterprises.

Measures to further improve agriculture.

Local administrative district, its nature, population and economy. Most important towns of the local region (territory or autonomous republic).

### Practical Work

Summing up the data collected while studying the nature and economic activities of the local region (territory or autonomous republic).

Sketch survey of the ground by the resection method. Azimuths, and walking by the azimuth. Plotting a sketch of the local ground.

Reading a practice topographical map and the map of the local region (territory or autonomous republic).

### **Excursion** (2 hours)

Familiarization with the economic activities of the population at an agricultural enterprise (collective or state farm) or at a local industrial enterprise.

### **Time for Recapitulation** (3 hours)