SOCIAL STUDIES Class V TEACHERS' MANUAL



Royal Education Council ROYAL GOVERNMENT OF BHUTAN

SOCIAL STUDIES

Class V



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In true sense, without your active participation and contribution, the quality of review of the book would not have been a success.

Forward

In accordance with the National Education Policy and the Ministry of Education's aim of developing more relevant materials, the New Social Studies Teachers' Manuals for Class V was presented in 1991 and the pilot tested in 28 selected Primary and Junior High Schools in 1992. It should be noted that this 2015 edition is revised version of 1991 pilot edition. The Department of Education would continue to welcome suggestions and comments on the manual to be appropriately incorporated in its future edition.

The manual continues on building up with the concepts and skills of Social Studies from class IV. It is hoped that it will provide a better transition from Class IV to Class V.

The manual is aligned with revised curriculum which is activity-oriented. It represents a systematic approach to teaching of Social studies concepts. It also demands higher standard of skills, competence and commitment from the teachers to use their environment for teaching and learning purposes.

Every effort has been made to relate the activities to the students' experience in the world that he or she lives in and strongly hopes that learning becomes meaningful to him or her.

Clear and realistic guidelines have been set for planning, evaluation, classroom management and teaching techniques. It is hoped that teachers will find it more useful and will do their best to follow its guidelines and thus achieve the objectives set out in the following pages.

I would like to take this opportunity to thank and congratulate all the teachers who have been involved in revising this manual. I am confident that our teachers will continue to give full support to the Department of Education in our efforts to achieve a better education for the young people of our country.

Thinley Gyamtsho Minister Ministry of Education

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Aims and objectives:

Social Studies is all about relationship between people and the environment. It includes the study of History and Geography, of Civics and Economics, of Culture and Religions and of Society itself.

In class V Social Studies, students are encouraged to learn information and concepts relevant to the above topics. They will learn the skills through reading, research, projects and through exploration of their own environment.

Learning information:

Students will be introduced to many new concepts and information about the wider world beyond their own immediate environment. They will learn about maps, globes, continents and oceans. They will observe the day and night sky, and begin to learn about the Geography of the universe such as the moons, the planets, the sun and the stars. They will investigate the relationship between altitude and climate in Bhutan, and compare temperatures, wind patterns and rainfall in different altitude regions.

They will learn the names and locations of dzongkhags, about transport and communications, food and cash crops, farm animals and their products, and workers and industries throughout Bhutan. They will also be introduced to central government, Bhutan's judiciary system and the monastic body. They will learn more about dzongs and monasteries of the country. They will also have a brief introduction to World History and Geography, other countries and the United Nations.

Developing skills through activities:

Students will continue developing many of the skills required in the social sciences including reading, making and using graphs, diagrams, timelines, maps and tables. They will use direct observation, interviews and surveys to gather information. They will present their findings in an orderly workbook and in reports, books, timelines and displays.

They will have further experience in collecting and sorting data for investigative history, and in using

both Dzongkha and Christian calendars for historical dating. They will also have experience in independent research. There are four individual projects and one group project for which they must gather information and make a presentation in a report, a book or a display.

Developing social skills through group activities:

Social studies is about ourselves and how we function in society. The Social Studies teacher must help students develop positive social skills such as politeness and respect which will enhance their interaction skills with others.

Respect for elders is not only important in Bhutanese society. Respect for each other in the classroom is also important. The small group activities required in this syllabus give opportunities for students to learn to relate to one another positively, to discuss problems together, to make plans and take decisions, and to cooperate in making investigations or preparing project work. Students who learn cooperation, fairness, honesty, tolerance and kindness in the classroom will be better able to function positively and successfully in adult society.

The text:

The class V student text is written in simple language. Most students should be able to read it by themselves without difficulty. Students should be expected to read most of the lessons in advance as homework.

Teachers should not waste time in the class reading and explaining the entire lesson. Questions can be asked in class to reinforce the concepts but most of the time should be spent in the suggested activities. The text is meant as a working book. Students should be able to follow the instructions to answer the questions or make the maps, graphs or tables by themselves while the teacher makes sure that the tasks are carried out smoothly and correctly.

There is a section 'Test Yourself' at the end of every block to help students revise the information learnt in every block. The questions asked in this section test the same objectives which should be tested in the term tests.

The Workbook:

Students are expected to have workbooks to do most of the projects and activities. These workbooks are to be treated like textbooks with contents and page numbers.

Students should be encouraged to maintain the workbooks workbook because most of the ongoing evaluation will be based on the work written in it.

Students should also have a rough book where they can enter observation data, write first drafts and do all other preliminary work. The workbook is for finished work and should maintain carefully. Most of the work in the workbook should be done in class under the supervision of a teacher.

The teachers' manual:

This manual is meant to be a working guide. There is a complete lesson plan for almost every lesson. These plans are meant for guidance but all teachers must adapt the plans according to the situations or find better ways to teach lessons effectively and meaningfully. The emphasis should always be on learning by doing, however, student initiative and ability to work independently should be constantly encouraged.

Each block has an introduction in the manual. This includes a detailed list of objectives, suggestions for the teacher on timing and planning. There is also a section on pre-requisite skills of students and on relationship of Social Studies with other subjects.

Every topic in the manual is introduced with objectives to be achieved, skills to be taught, activities to be done, timing for the lessons, resources needed and in some cases new vocabulary to be learnt.

Teacher information:

It usually indicates the prerequisite skills of students to start the next lesson and often gives additional facts and suggestions to help the teacher. If special preparation is needed this is noted under **Preparation**.

Homework:

It is suggested that homework be given after completion of every lesson. Students can continue to do the unfinished classwork as homework. Homework can sometimes be reading a text for the next lesson, a research, a project, an observation, a survey, an investigation and an illustration. Work related to maps, diagrams, tables, graphs and entry of data should be done in the class under the supervision of a teacher.

Assessment:

The achievement and performance of students in Social Studies are assessed through the following schemes of assessment.

Continuous Formative Assessment (CFA)

Formative assessment is used to provide feedback to teachers and students on a continual basis, so that teaching and learning can be improved through the provision of feedback and remedial learning opportunities for the needy learners as identified from the assessment. It also enables teachers to understand what teaching methods and materials work best.

CFA facilitates teachers to diagnose the learning needs of the students, and recognize and understand their individual differences in learning. The feedback encourages students to reflect on their achievement and performance, by which they are able to understand their strengths and weaknesses.

CFA should happen daily throughout the teachinglearning processes of the academic year. It is NOT graded as it is used only to give continuous feedback to the students.

The tools identified for CFA are checklists and anecdotal records. Checklist must be maintained for each topic and recorded throughout the academic session for future references. The tools and techniques for CFA can be seen in the Assessment Matrix.

Continuous Summative Assessment (CSA)

It is a continuous process of grading student's performances and achievements. Based on their performance, teachers provide feedbacks for improvement. It also enables teachers to understand what teaching methods and materials work best. Mainly students' knowledge, skills, and values and attitudes are graded.

Students are continuously assessed on three areas.

To check the Social knowledge of the students, homework is regularly given but the homework given at the end of the each block is assessed. Homework carries 5 marks in the first term and 5 marks in the second term.

Block tests are also conducted with the weighting of 5 marks in each term.

Under social skills, a project work which has weighting of 10 marks is given in the first term as well as in the second term. The teacher must continuously provide feedbacks on students' projects in both the terms. The suggestive topics for the project work could be "drawing and describing the Earth, the Solar System, writing about his or her own and his or her family history, investigating and writing histories of old bridges, temples, monasteries, village, great people and rivers. Students should be discouraged to write the project on the same topic if they have written in class IV. The project work should be a minimum of 300 words.

To grade social values and attitudes of students, teacher must do observation of students' conduct both in and outside the classroom while doing

learning activities. It has a weighting of 5 marks in each term.

The main tools for CSA are rubrics for homework and project work; rating scale for the observation of learners' conduct; and pencil paper tests for block test. The scores from the rubrics, the rating scale and paper pencil tests should be converted to the weighting prescribed for each technique for each domain in each term.

Summative assessment is conducted at the mid of the academic session and at the end of the year to determine the level of learning outcomes achieved by the students. The information gathered is used by teachers to grade students' for promotion and to report to parents and other stakeholders.

The identified tools and techniques for SA can be seen in the Assessment Matrix, which include midterm examinations with the weightings of 20% and 30% for the annual examinations. The questions for the term examinations should cover all the three domains of learning using the Bloom's taxonomy. Therefore, it mandates teachers to prepare the test blue print prior to the setting of questions for the examinations. The weightage is the same for every block.

Assessment Matrix

Types of assessment	CFA					CSA		SA	
Definition	problems and learning needs; provide feedbacks p and to identify the needs for the remedial measures to improve student's learning. It also			It is a continuous process of grading student's performances and achievements. Based on their performance, teachers provide feedbacks for improvement. It also enables teachers to improve teaching.			Assesses student's cumulative performances and achievements at the end of each term.		
Domains	Social knowledge (SK) Cognitive	Social Skills (SS) (Psycho- motor)		cial Values d attitudes 'A)	Social knowledge (SK) Cognitive	Social Skills (SS) (Psycho- motor)	Social Values and attitudes (SVA)	SK, SS & SVA	SK, SS & SVA
Techniques	Quiz & debate, self & peer assessment, class presentation, home- work, class work, immediate interaction with students	Immediate interaction with students, classwork, homework, experiment & exhibition	of s cor grc fiel exc sel ass & inte wit	eraction	Home- work and chapter end test,	PW	Observation of student's conduct guided by scientific and social values	Mid-term Exam	Annual Exam Test blue print and paper pencil test.
Assessment tools	Q&A, checklist and anecdotal records	Checklist and anecdotal records	and and	ecklist d ecdotal ords	Rubrics (HW) and Q&A (block test)	Rubrics	Rating scale	Test blue print, paper pencil test with: Objective type questions: multiple choice, Close test, matching, true or false. Short answer questions and extended response questions.	Test blue print, paper pencil test with: Objective type Questions: multiple choice questions, close test, matching, true or false, Short answer questions and extended response questions.
Progress Report	Checklists and anecdotal records must be maintained for each topic throughout the academic year			SK	SS	SVA	Mid-term	Annual Exam	
Weightings	· · ·			T1=10		T1=10	T1=5	T1=20	T2=30
				T2=10		T2=10	T2=5		

Aims:

The primary aim of this block is to develop and encourage curiosity about the wider world around us and a sense of "being at home" in it.

In New Approach to Primary Education Class IV Social Studies the emphasis was on the local environment. With a few exceptions this was also true in New Approach to Primary Education. Environmental Studies PP through Class three. In Class V expand the exploration of the environment outward to include the entire world and the universe around us. Block I is an introduction and explores some basic concepts that will be new to most New Approach to Primary Education children and which will be needed as foundation for the rest of the year's work. Concepts about the Earth, movements of earth and moon in relationship to the sun are needed for work with calendars in Block II and throughout the year. They are also needed for the study of weather changes in Block III. Familiarity with the globe, continents, oceans and the fact that the world is round is important for the introduction to world history and geography in Blocks V and VI.

Students will begin with the familiar self, family, home and local Dzongkhag – but then will move rather quickly outward to Asia, the wider world and its continents and oceans and then to the sky which is there for every child to observe, but which has not yet been investigated in the New Approach to Primary Education syllabus. Students will develop skills in demonstrating, diagramming, making and using plans and maps, using the globe, observing, recording, letter writing, sharing information with others, and explaining new concepts in simple English.

Objectives: Students should be able to:

- 1. Discuss and write about themselves and their roles in the family and home
- 2. Show location of Bhutan.
- 3. Name the South Asian Association for Regional Cooperation (SAARC) countries.
- 4. Find Bhutan and Bhutan's neighbours on a map of Asia.

- 5. Identify seven continents and four major oceans and locate them on a map.
- 6. Locate the equator, North and South poles, continents and oceans on a globe and know that the Earth is a sphere.
- 7. Give at least one reason we know the world is round.
- 8. Observe the day and night sky and attempt to answer questions about what is seen.
- 9. Say what the sun is made up of and why it is necessary for life on earth.
- 10. Demonstrate the spinning (rotation) of the earth every twenty four hours, and know this is the reason for day and night.
- 11. Demonstrate and draw diagram how the Earth travels around the Sun.
- 12. Make a diagram showing that the different seasons are caused by the Earth's tilt.
- 13. Make a simple top to demonstrate tilt and axis.
- 14. Recall information about the Sun.
- 15. Identify the eight planets, show how they also move around the Sun, like our Earth, and know that gravity holds them in place.
- 16. Draw diagrams, label and give a reason for "the phases" of the Moon.
- 17. Develop curiosity about the universe and begin to observe, to record, to ask questions and look for answers about it.

Student background:

In New Approach to Primary Education students has not studied the sky, the sun, the moon, the planets or the stars. Aside from some investigations in the Class III block on transport they have not had much experience with world Geography, with world maps or with the globe. The activities in Class V give necessary preparation for higher class work that presumes knowledge in these areas.

Relationship to other subjects:

The higher numbers (millions and billions) needed for discussion of the wider universe are first introduced in Class five Maths and students can use numbers in this block for Maths word problems. Science introduces gravity as a force in Block V. They will be doing more of investigation, exploration, explanation about Stars, Sun and Moon. History: They will be learning about old Dzongs and Ihakhangs, and great lamas. There are many connections with English work since writing, reading and oral expression is all required.

Timing:

A minimum of 30 periods will be required to cover this block. However, it is suggested that you allow a full six weeks or 30 periods. This should allow some time for work periods when students can finish their writing and drawing projects and time, as well, for those lessons that take longer than planned.

There should also be some periods free for revision of this block and for work periods during Block II, since much of the work for that block must be done by the students outside of class (see suggested plan for Block II).

Planning for Block 1:

Adapt this suggested six weeks plan to fit your own situation. Flexible periods are not empty periods. You will usually need them for lessons that take longer than planned or as work periods for the students. If you're caught up on your lessons, move ahead into the work for the following week. There is a lot to cover and no time to waste.

Week	No.	Lessons	Periods
One	1.1	Our homes	1
	1.2	Bhutan- Our Home Country	2
	1.3	Countries around Bhutan	
Two	1.4	Continents and Oceans	2
	1.5	The Earth- Our Home	3
Three	1.6	The Sun	3
	1.7	Why Do We Have Different Seasons?	2
Four	1.8	How Do We Know the Earth Tilts?	3
	1.9	The Moon	2
Five	1.10	The Solar System	2
		The Universe	2
		Flexible	1
Six	1.11	Stars and shooting star	2
	1.12	Test Yourself	2
		Flexible	1

Distributions of topics

1.1 Our Homes

Objectives:	Students should be able to discuss and write about themselves, their families and homes.
Skills:	Analyse the importance of homes and being a part of the family.
Activities:	Write at least two paragraphs about themselves and their families.
	Write two paragraphs about the ways they help their families and importance of families in their life.
	Write about one paragraph how to take care of their homes (they can choose the activity from text).
Time:	1 period.
Organization:	Students will do the work individually.
Resources:	Student book, crayons or coloured-pencils and exercise book.
Vocabularies:	Home, safe, special, protect

Teacher information:

This is an introductory and revision lesson. Social Studies is about ourselves in relationship with society and the environment, so the students will begin with a look at themselves.

The family is the first and most important social unit in which all of us live. In this lesson the teacher should encourage students to look positively at their families. The emphasis is on how they and their families care for each other.

Students are also encouraged to remember and write about a happy time they have had with their families. Also emphasizes the question. "Tell some ways you help your family". Ask several students to express this orally before they begin writing.

The lesson

- 1. Ask students to read the text.
- 2. Find out the difficult words from the text.
- 3. Explain the meanings of difficult words.
- 4. Ask students to describe in few sentences about families.
- 5. Ask some of the questions in each paragraph aloud. Let the students give answers orally. Help them frame good sentences. (It is usually helpful to practice expressing themselves in oral English before writing).
- 6. The students should answer the questions in the text.

Home Work: Ask students to read the next topic in advance.

1.2 Bhutan- Our Home Country

Objectves:	Students should be able to locate different Dzongkhags of Bhutan.
Skills:	Reading and marking different dzongkhags on the given map of Bhutan.
Activity:	Location of Dzongkhags on the given map.
Time:	2 periods.
Organisation:	Individual work.
Resources:	A wall map of Bhutan, coloured pencil and outline map of Bhutan.
Vocabulary:	Gewogs, Chiwogs, Himalayas, India China – China.

Teacher information:

This lesson is an introduction to the simple activities like plotting the twenty Dzongkhags in the map of Bhutan. Bhutan is divided into twenty Dzongkhags and two hundred and five Gewogs.

The Lesson:

The map of Bhutan will be provided to the students. They will plot the twenty Dzongkhags and circle their Dzongkhags.

Home Work:

Read the next lesson in advance.

1.3 Countries around Bhutan

Objectives:	Student should be able to name the SAARC countries and plot the SAARC countries in Asia map.
Skills:	Using a wall map of Asia to find SAARC countries and Bhutan.
Activities:	Students will plot the SAARC countries in the Asia map.
	Make a key and show Bhutan and its neighbours in the outline map of Asia. They can colour the different countries with different colours.
Time:	2 periods
Organization:	Individual work.
Resources:	A wall map of Asia, colours, outline map of Asia, new Atlas.
Vocabulary:	The teacher should help with spellings, vocabulary and usage as required by the students. (Eg: South Asian Association for Regional Co- operation, SAARC)

Teacher Information:

This is an introductory lesson. Students will encounter other references to Asian countries. This lesson should help students locate and begin to think about these countries (SAARC countries). Tibet, of course, has been claimed by China since 1956. Students should know that it is now part of China. Most Tibetan people however, still want to be free, and Bhutanese students should know that also. Tibet was, in a real sense, the historical and cultural mother of Bhutan. Tibet will be mentioned often in the History of Bhutan and for this reason too, Bhutanese students should have a clear idea of its name and location.

The Lesson:

- 1. Show the students the map of Asia on the wall. (Cover the word Asia, if you wish). Ask a student to tell you what continent it is. New Approach to Primary Education students learned the continents when they did a block on transportation). Does some think it is a different continent?
- 2. If you find many who do not recognize it, make a game of the question.

How many think it is Africa? Europe? North America? Asia? Etc. Then congratulate those who are correct.

3. In groups let the students find the countries listed in the text on page 4.

- 4. If your students already have a good concept of Asia and our neighbours there, you can ask them to show other countries they know (Japan, Philippines, etc.) What do they know about each of them? Does Druk Air fly there? How could they get there? Do they know anyone who has been there? (Don't spend too long on this, however. Most students will need 30 or 40 minutes to finish the map and glue it into their workbooks – and especially if they must also trace it).
- 5. Ask them to follow the directions in their text. Let them plot the SARRC countries in the outline map of Asia. They may colour the countries lightly with coloured pencils.
- 6. Those that did not finish may complete the work at home or in class after they have finished their other work. Leave the map of Asia on the wall for a few days.

1.4 Continents and Oceans

Objectives:	Students should be able to identify seven continents and five major oceans and locate them on a map.
Skills:	Identify and locate continents and oceans in the world map.
	Identify continents by shape and the continents and oceans correctly.
Activities:	Mark the continents and oceans on the outline map of the world.
Time:	2 periods
Organisation:	Students can do individual or pair work .They can help each other.
Resources:	Blank continent map, a world wall map, coloured pencils, scissors and glue.
Vocabularies:	Name of the continents and oceans.

Teacher information

Students were introduced to some continents in Class III, but many may have forgotten their names and shapes. The ocean names will be new to most of the students. Familiarity with continents, oceans and the world map will be required for later work in this block, in Block III and especially in Blocks V and VI.

The lesson

- 1. Ask students to read the text themselves first.
- 2. Ask if they remember the names of the continents which they had studied in Class III.
- 3. Point to the blank map of the continents. Ask different students to name them by shape.

(If you find that none of your students remember the continents, refer to the world wall map. Let them look for the names there and then tell you the answers).

- 4. Now let them write the names of the continents (as shown in their texts) in their workbooks.
- Ask them to answer the question about Bhutan and the continent where it is located. They should write the sentence in their workbooks, as directed in the text.
- Erase the names on the blank continent map. Point to each continent and ask for chorus answers. Point to a continent and ask "What

continent is this"? Go very quickly.

- 7. Then ask students to trace the continent shapes from their texts onto a piece of foolscap paper. They should name the continents correctly. They can colour the oceans blue and mark each continent with a different colour. Coloured pencils are best for map work. If they must use crayons they should colour very lightly.
- 8. Ask students to write their names on the maps and hand them in for checking before they glue the maps in their workbooks.

Home work: Students will read the spellings of continents and oceans.

	1.5 The Earth – Our Home
Objectives:	Students will be able to locate the Equator, North and South poles on a globe and know that the earth is a sphere.
Skills:	Explore North Pole, South Pole, Equator, Latitudes, Longitudes and the shape of the Earth.
Activities:	Drawing the earth as a sphere, showing the North Pole, South Pole, Equator, Latitudes and Longitudes.
	Write five sentences about the Earth (land, air, water, shape).
Time:	2 periods.
Organization:	Students will do the activity individually or in group.
Resources:	Colour pencils or crayons, globes and a wall map of the world
Vocabularies:	North Pole, South Pole, Equator, Latitudes, Longitudes, Imaginary Lines

Teacher information

In New Approach to Primary Education students have done very little work with the globe. This lesson is designed to familiarize them with the globe as a map and with concepts like the poles and the equator. They will use globes extensively in Class V.

The lesson

- 1. Pass around the globes. Ideally there should be at least one for each group. Let the students look at them a few minutes.
- 2. Ask if anyone knows what this is called. What shape is it? What does it show? Can they find Asia? North America? Etc.

- 3. Can they find Bhutan? India? Etc. Let students pass the globe around and take turns finding the places.
- 4. Can they find the oceans? What colour are they? What are the oceans made of?
- 5. Ask them to find the North Pole and the South Pole on the globe. Discuss them. (Show pictures if you have them). (Do they remember where the needle on a compass points? Why? Remind them that the north and south poles are magnetic)
- 6. Ask them to find the equator. Discuss it.

 Next ask them to read the last half of the text and follow the directions carefully. The students may draw the earth in their

workbooks. They can use their compasses to make a good circle. They can draw from the picture or from the globe itself.

Encourage them to draw the Asian side.

Homework: Read page 7 in the text

1.5 Is Our Earth Round or Flat?

Objectives:	Students will be able to write at least one reason that Earth is round.
Skills:	Experiment the shape of the Earth.
Activities:	Demonstrate the shape of the Earth and give reasons for having such shape.
Time:	1 period.
Organization:	Individual or pair work.
Resources:	Activity book and practical notebook, Globes (one for each group if possible). Crayons, scissors, glue, pencil,

Teacher information

The New Approach to Primary Education syllabus had not included much work on the world or on the fact that it is round rather than flat. One method of teaching this is used here. The usual methods, referring to ships at sea or watching things disappear over the horizon, are not appropriate for a mountainous landlocked country like Bhutan.

All Class V students should know about aero planes, however, even if they have never seen one and almost all will have met someone who has travelled to or from a distant country without falling off the edge of the world. We travel around the world, looking at the globe, pictures

The lesson

- 1. Display the world map on the wall.
- 2. Students should be seated in groups. Ask them to look at page 7 in their texts while waiting for materials.
- 3. Pass around the globes. (Ideally there should be at least one for each group).
- 4. Give them outline map of world and a globe in group. You can ask which one is most like the real earth? Is the earth round like the globe or flat?

In some classes every student may know immediately that the earth is round, but ask for reasons. If there is a difference of opinion, let students express reasons for believing as they do.

- After the discussion ask the students to do activity from Text-p-7, reading and following the instructions. Let them work in pairs or within the group for Q 1, Q 2 and Q 3.
- 6. They will have to take turns using the globe within each group for Q 4 and Q5.
- 7. When every pair or a group has finished steps 1 to 5, begin discussion again. Do they think the world is round or flat? Why? Don't tell them the answer. Get several students to answer in their own words. If student is not able to give reason then teacher explains it.
- 8. Ask students to answer Q 6 in their notebooks on the same page where they wrote about the Earth.

Home Work: Ask students revise the lesson at home.

1.6 The Sun	
Objectives:	Students will be able to explain the importance of the Sun and what the sun made of.
Skills:	Analyse the earth in absence of the sun.
Activities:	Reading and answering the questions given in the text.
Time:	2 periods
Organisation:	Students will sit in pair or group work.
Resources:	Magnifying glass, library books-about Sun
Vocabularies:	Spaceship

Teacher information

The next three lessons will require at least a week. You and your students can use the World Book Encyclopedia, National Geographic magazines (if you have appropriate copies) and the collection of Science and Geography books in the library. As it is related to science they will have idea about the Sun.

The lesson

- You can ask first what the sun feels like. Hot and fire is the expected answers. Warn the students that the sun can indeed burn and that they must never look directly at it, even with sun glasses.
- 2. Tell the students that they are going to test the burning power of the sun. Give each group a thermometer and a magnifying glass.
- 3. Take them outside to measure the temperature of the air in the direct sunlight and in the

shade. They should record this in their practical notebooks. Next they should direct the sun's rays onto a small piece of dry paper with the magnifying glass. This should be done on the playground where there is no grass and nothing to catch fire. What happens? Go inside. Students should write the results in their workbooks. What do they think the Sun is made of? Tell them that the sun is therefore made up of hot burning gases.

- 4. The sun burns our eyes and our skin, but what would earth be like without it?
- 5. Use class discussion. Use the questions given in the text. You and your students should think of other effect.

Homework: Ask the students to write a paragraph about why the sun is important for life on earth.

Objectives:	Students should be able to demonstrate the <i>rotation</i> of the earth every twenty four hours and know this is the reason for day and night.
Skills:	Interpret why we have day and night.
Activities:	Investigate the disappearance of the Sun during the night. Draw a diagram to show why we have day and night, and write short paragraph to justify the disappearance of the Sun.
Time:	1 period.
Organization:	Teacher does the demonstration.
	Children will write the process of the rotation.
Resources:	A globe and a flashlight for each group.
Vocabularies:	spin, spinning, spun, <i>axis</i> . (Note: words like <i>revolve</i> and <i>rotate</i> are not used in this or in the following lessons).

Teacher information

This lesson appears to be rather simple. The students can read the text. The experiment with a globe and a flashlight will be done by teacher making "day" and "night" in different parts of the globe. The project will work best in a darkened room or under a heavy blanket. Close the doors and shutters (if you have them) or bring heavy cloth to cover the windows. Get as many globes as possible, flashlights with working batteries (from the science cupboard) and cloth necessary to cover the windows ready in advance. However, thinking students may ask many questions and some questions will be hard to answer. Most New Approach to Primary Education students will not have to be

introduced to the concept of gravity and will have difficulty understanding it. Some possible questions may follow. You do not have to raise these questions if no student asks them.

However, it is good to encourage their wondering, their curiosity and their eagerness to ask questions about things they don't know. Something called gravity holds us on. The earth is like a giant magnet that won't let us fall off.

Magnets only hold things of iron. We are not made of iron. All things pull each other, like a magnet pulls

iron. However, the pull is very weak and we can't feel it or see the result. When things are very big, like the earth, the sun or the moon, however, the pull is very strong. The earth's pull keeps us from falling off. The moon, the earth and the sun all pull on each other and keep each other in their places in the sky. (Students will learn more about gravity in the following lessons and also in Science).

How fast is the earth spinning? Let students figure it out themselves. The earth is 40,077 km around at the equator. This is how far it has to spin to make one complete turn. Divide the number by 24 hours to get the speed per hour and round off the answer. At the equator the earth is travelling at 1,670 km per hour or faster than any aero-plane.

Why can't we feel it or see it if we are spinning so fast? Everything is spinning at the same speed, so we can't tell. The only way we can see that the earth is spinning is by watching the stars, the moon and the sun. They seem to move in the sky because we are moving

The lesson

 The students should have read the text as homework. Look at the first four paragraphs a few minutes at the beginning of the lesson. They may ask questions or you can. What are some things people used to think about the sun? What are some stories people have told you about it? Do you think the stories are true? How can we find out?

2. The word axis in paragraph 3 is not defined in this lesson and is not necessary for understanding the concept of rotation or spinning. It is used again in lessons 1.15 and 1.16 with the concepts of tilt and seasonal change. However, you can show the rod which runs through the globe.

This represents the axis. Of course there is no real rod running through the earth, just as there is no real line to show the equator. But the axis (just like an axle) on which the earth spins is real just as the equator is real, even though we cannot see a rod or a line.

3. Ask some simple oral questions. "About how many hours of day do we have in Bhutan?" "About how many hours of night?" About how many hours from sun rise to sun rise? How long does it take for earth to spin? Around one time? 4. Ask students to answer these questions while teacher does the demonstration.

Ask the following questions:

Why can't we see the sun at night?

How many hours does it take the earth to spin around one time?

Why do we have day? About how many hours are in a day?

Why do we have night? About how many hours are in a night?

When it is daytime in Bhutan is it also daytime in North America?

5. Ask the students to draw the diagram to show day and night. They should draw the sun on the left hand side of the diagram. The side of the earth towards the sun should be labeled day. The side away from the sun should be labeled night and shaded.

Homework: Students tries the demonstration at home.

	1.6 Does the Sun Go Around the Earth?
Objectives:	Students should be able to demonstrate and draw a diagram of how the earth travels around the sun.
Skills:	Demonstrating, making diagram and explaining in words.
Activities:	Demonstrate and draw a diagram showing how the earth takes 365 ¼ days to travel around the sun. Write a short paragraph answering the question "Does the sun go around the earth?"
Time:	1 period.
Organisation:	This is an individual work or group work.
Resources:	Globe and library books about the story of Sun.
Vocabularies:	Telescope, priest, chariot, scientist, (Note: the words orbit and revolution are not used. Moves and goes around are used instead).

Teacher information:

The concept in this lesson are the scientist Galileo had found that the Earth moves around the Sun. Thousands of years, people thought that Sun moved around the Earth. Teacher can share the stories of the Sun.

The lesson:

 Seat the students in groups. Students should have read the text as homework. You can ask them to read over each paragraph (aloud or silently) again before you discuss in briefly.

- 2. Discuss the first paragraph. Do they know any stories about the sun as a God? (What about Nima Yoezer? Hanuman taking the sun from the sky?) Did the students discover any more stories about the sun? What do they think the last sentence in the paragraph? Does the sun travel around the earth?
- 3. Discuss second paragraph. What country had scientists who studied and learned about the sun 1,500 years ago? (Actually Egyptians and

Sumerians discovered the relationship of sun to earth about 5,000 years ago but most students know nothing of these civilizations and they are not introduced until Block V). What about Bhutanese astrologers? Do they have anything to say about the apparent movement of the sun?

4. Discuss the third paragraph. Has anyone heard the story of Galileo before?

Homework: Read the text p-11 in advance.

Objectives:	Students should be able to make a diagram showing that the different seasons are caused by the earth's tilt.
Skills:	Drawing and explaining the changes of seasons.
Activities:	Draw a diagram showing how the tilt of the earth causes changes in the seasons. (Text p. 11)
Time:	1 period.
Organisation:	Students will do individual work or group work.
Resources:	Globes and torches.
Vocabularies:	tilt, bends, complete.

1.7 Why Do We Have Different Seasons?

Teacher information:

This lesson is background for work on weather in Block Three. The concept may be difficult for some of your students. Don't be too concerned if not everyone seems to understand fully. This is meant as an introduction. Students will have more work with this concept in higher classes.

The Lesson:

- 1. Look at the diagram again on page 11. (It will be best if they have already copied it a second time into their workbooks). In their copied diagram they should make a small dot to show Bhutan in the northern half (*hemisphere*) of the world.
- 2. They should write the dates that mark the change of seasons (the equinoxes and solstices) on their diagrams. They should write the seasons along the arrows. They should label the sun and

the southern and northern halves of the world.

- 3. You can give the students a short exercise like the one below to help them express the concepts. You can cyclostyle the sentences and put them on the blackboard or write them on newsprint.
- 4. Let the students copy them into their workbooks with the correct answers.

Bhutan is in the _____(top, bottom) or _____ (north, south) part of the world. When the top or _____ half of the world tilts away from the sun it is ______ (winter, summer) in Bhutan. When the top half of the world tilts toward the sun it is ______.

Homework: Ask students to complete the diagram at home.

1.8 How Do We Know the Earth Tilts?

Objectives:	Students should be able to make a simple top to demonstrate tilt and axis. Students can investigate the changing locations and times of the setting sun and relate this to the changes in seasons and length of days.
Activities:	Making a top and investigating axis.
Skills:	Investigate the changing locations and times of the setting sun and relate this to the changes in seasons and length of days. Make a spinning top using a picture as a guide.
Time:	2 periods.
Organisation:	Student can do individually or group work.
Resources:	Cardboard. (Chart is not heavy enough) scissors, crayons, globes.
Vocabulary:	Axis (the word has been introduced in earlier lessons but here it will be emphasized and demonstrated.)

Teacher information

Ask students to observe the Sun but they will require many days to see the changes in position.

Students should begin the observation in April or May and continue it at least until July. That will allow the student to see the apparent reverse direction of the sunsets after June 21. (Delay marking on the project until after the student has completed the observations).

The more often sunsets are observed the better, but it does not have to be every evening. The student must always stand or sit in the same place while watching the sunset. S/he should find a tree, a house, or some other object near where the sun goes down which can be used as reference point. Students should make a careful sketch each time they observe, and be careful to always show the same reference points, etc.

They can also write the time of the sunset, as well as the date. It will not be possible to use this to calculate the changing length of days, however, unless the sun sets over a flat horizon (a plain or sea) to the west.

This kind of landscape is rare to non-existent in Bhutan. Make the top yourself first so that you can help the students make it correctly.

The lesson

- 1. Ask the students to read the lesson. Ask each student to bring an old thin pencil and a piece of cutout cardboard to make spinning top.
- 2. Look at the six paragraphs on the sunset

together. Discuss them briefly.

- 3. You can ask volunteers to watch the sunset for a few nights. You can also suggest that someone might like to do this for a marked project.
- After the discussion you can ask the students if they know what the longest day of the year is in Bhutan and the northern part of the world. (June 21). Why? What is the shortest day? (December 21). Why? What would the longest and shortest days be in Australia?

(In Australia it is just opposite. In June 21 it is the shortest day and in winter it is longest day .People living in the northern hemisphere will have longest day in summer and shortest day in winter as Earth is tilted towards the Sun .But at the same time people living in the southern hemisphere will have shortest day in summer and longest day in winter as Earth is tilted away from the Sun.

- 5. If you wish you can also show them with the globe and a torch why it is almost always night in the winter, and almost always day in the summer at the North Pole.
- 6. Push the pencil or sharp stick through the exact center of the circle.
- 7. Let students spin their tops. Point out that the tilting pencil is like the axis of the earth. However, we cannot see the earth's axis. We know that the earth tilts on its axis from observation. Spin the globes also.

Homework: Ask the students to look at the revision lesson.

1.8 The Story of the Sun

Objectives:	Student will be able to find out the correct words to fill the blanks.
Skills:	Finding out the correct words to fill the blanks.
Activity:	Recalling information and completing a story on our Sun.
Time:	1 period.
Organization:	Students will do individually or can do in groups.
Resources:	References about the sun.

Teacher information

This is an open book revision test. Students should work in groups and help each other recall or find the answers. They should write the story with correct answers in their workbooks.

The Lesson

- 1. Students should have read the lesson as homework.
- 2. Seat the students in groups. Tell them they may talk together and help each other find what they think are the right answers. They may also look back in the book for answers.
- 3. They should copy the story using their pens, leaving the blanks. They should do it paragraph by paragraph.

- 4. As soon as they all copy the first paragraph they should begin talking about the possible answers. Answers should be written in pencil so that they may be easily corrected later.
- 5. When they have finished the whole class should share answers with the teacher. Students should correct their errors.
- 6. The following words given below are the answers:

Gases, air, burning, Sun, hot, plants, food, see, anything, die, night, day, night, night, 24 hours, Sun, 365 1/4 days, 365, winter, summer, winter, winter.

1.9 The Moon	
Objectives:	Students will be able to gather information about the moon draw diagrams, label and give a reason for the phases of the moon.
Skills:	Demonstrating, diagramming, observing and exploring information about the moon.
Activities:	Drawing the diagram of the phases of the moon and answering questions given in the text.
Time:	2 periods
Resources:	Globes, small balls, flashlight/torch, curtains to cover windows to darken the rooms.
Vocabularies:	Phase, goddess, appear, disappear, quarter, spaceship

Teacher information:

New Approaches to Primary Education, students have not previously studied the moon. This lesson is intended as a very brief introduction to the moon, its movements, its phases (or seeming changes in shape), and its relationship to the sun, the earth, and our calendar.

Moon observations should begin with this lesson. The whole class can observe the moon and mark the phases on a calendar with the appropriate symbol.

By the end of this lesson students should have found correct information about the shapes of the Moon. And why people can't live on the Moon.

The Lesson:

- 1. Provide a brief introduction to the moon.
- 2. Ask "Does the moon always look the same?" Take answers. Perhaps students who say it changes can draw some of the shapes on the blackboard for others to see.
- Ask students to observe the moon for a month. If you have a class calendar, a student who saw the moon during the night (or day) before can draw the shape on the calendar each day. Take a minute or two before or at the end of each lesson

to comment on the moon shape (or phase) for that day. Ask for the correct name.

- Ask "Why do you think the moon changes shape?" Some may give correct answers. But try to get some moon stories. (Try to take some time to read or tell moon stories and poems during this unit).
- Ask such question as "The moon takes about 30 days to go around the earth. How many time will the earth turn completely around while the moon goes round?" (Answer: almost 30 times --- a day and a night --- plus another half turn).
- If it seems appropriate, you can put the students in pairs and go outside and let everyone act out the moon's movement around the earth. Let earth spin slowly 29 or 30 times while the moon moves ---about a fifth of the circle (orbit) for every six spins of the earth. Let them try to get the timing right.
- 6. Let students copy from the text the different phases of the moon in their exercise book.
- 7. Discuss questions 1, 2 and 3 together. Ask students to write full sentence answers to the three questions in their workbooks.

Objectives:	Students should be able to identify the eight planets, show how they also move around the sun, like our earth, and know that gravity holds them in place.	
Skills:	Carry out instructions for the simulation activity and draw a diagram and name eight planets.	
Activities:	Act out the movements of the eight planets around the Sun and then draw a diagram of the solar system, name the planets and write a note on the solar system.	
Time:	2 periods.	
Organization:	Whole class, in pairs or individual work	
Resources:	Pictures of solar system from the Encyclopedia. Any books, charts, pictures you can find about the solar system.	
Vocabularies:	Solar System, planet, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, asteroids, comets, meteorites	

Teacher information:

The word *Solar* is not in the student dictionary, but is defined in the text. *System* is in the dictionary and should also be familiar from science. *Wanderer* is defined in the text, but students can be encouraged to look it up in the dictionary, as well.

Please do the simulation activity. It can be fun, and will help the students learn both the concept and the planet names. Prepare and think it through in advance. Where is the best place to do it?

The lesson:

- Open the lesson with questions like: What does solar mean? How many planets in the Solar System? What are their names? What is at the centre of the Solar System?
- Go on to a hard question. What keeps the planets going in circles around the sun? Why don't they fly off into space? Take answers or guesses from the students. (If anyone says gravity--- can they explain or show what they mean?)

(Note: the word *circle* is used rather than orbit or ellipse (the true shape of the orbits). *Path* can also be used. *Orbit* is in the student dictionary, and you may introduce the word if you wish, but do not require it in test answers).

- 3. You can tell the students something like this: Gravity holds us onto the earth and it holds the sun and planets in place. Everything pulls on every other thing, but when the things are small (like people and houses) the pull is very weak. We don't notice or see or feel it. But with big things like the sun and earth the pull is very strong. Earth won't let us fall off. Earth and sun won't let go of each other.
- 4. You can demonstrate with a student. Pull just hard enough to counter the student's pull, so that neither of you move.
- 5. Tell the students that they will act out the movements of the planets in the solar system. Divide the class into groups of ten. Assign left over students to the groups as moons. (1 for earth). Mars has 2 tiny moons. One goes around 3 times as fast as our moon! Jupiter and Saturn each have 16 moons. You can give a moon to any planet except Mercury and Venus, they have none).
- 6. Pass out pieces of paper (A4 size will do) or chart paper cut about the same size. Pass out sketch pens. Students should have rulers.
- 7. Each student should choose to be the sun, a

moon or one of the planets. The sun and all planets should be represented. Each student should make a label for him/herself, making sure spelling is correct. Make the letters very large. Pin on the label on the student's clothing where it shows clearly.

- 8. Go outside. The place must be flat and students should be able to move at least 40-45 metres in any direction without obstruction. It will be best if the surface is dirt and can be scratched with a stick. An alternative is marking on concrete with chalk. If the surface does not lend itself to marking simply rely on the rope. Most classes will have 3 groups. Call one group while the others sit and watch.
- Stand the sun in the center. Sun holds the rope and Pluto takes it at full length (20 metres), and walks around the sun marking his path with a stick.
- 10. Pluto may keep walking while Neptune takes the rope (going in two knots to 16 metres) and walks around marking the path with a stick. The rope should be kept taut. Let Pluto set the pace. Those at the center will have to walk more slowly.
- 11. Each planet does the same in turn, going in one knot each time (2 metres) until Mercury, the closest to the sun, is reached.

- 12. The planets should go around the sun once or twice holding onto the rope (gravity). They must go slowly at the centre or Pluto will fall down.
- 13. Once all planets are set walking in their marked paths the rope should be removed. Moons may be assigned to planets. Theirs is hard work; they must run around their planets as the planets move around the sun. Now the planets should also begin to spin as they walk. (Venus spins clockwise; the others go all anticlock wise). Now they can also go at their own speeds. Those in the centre may move more quickly around the sun.
- 14. One or two orbits is enough.
- 15. Each group can follow the same procedure in turn while the others watch. A class would have a maximum of three groups (including moons) smaller classes will have only two.
- 16. Discuss what happened. The rope is like gravity. The planets can go no further from the sun than the pull of the rope allows.

Homework: Ask students to practice the spelling of eight planets and other celestial bodies.

	1.11 The Universe
Objectives:	Students should be able to develop curiosity about the universe and begin to observe, to record, to ask questions and look for answers about it.
Skills:	Independent research and reporting.
Activities:	Read the text independently and answer the questions.
Time:	2 periods.
Organization:	Individual or pair work.
Resources:	References (pictures of telescope)
Vocabularies:	Telescope, universe, meteor

1 11 The Universe

Teacher information:

The material in this lesson is not meant to be memorized. It is meant to arouse curiosity, and hopefully to lead the students into asking more questions and looking for answers. Teacher can use the references from the library.

You and your students can use the World Book Encyclopedia and the collection of science and geography books in the library. Do allow time for the students to look at such materials, including pictures of rockets, satellites, telescopes and heavenly bodies. Help any who are interested find diagrams of star patterns. A student may want to query the Dzongkha lopens for more information on Bhutanese views of the universe. Welcome and encourage this!

The Lesson:

1. Start the lesson by asking some questions. How many stars can you count in the sky?

Did anyone try counting? What answers did they get?

- Read the text to find the answers. Encourage any student who is interested to find out more about telescopes. Show some books and pictures. Write corrected answers to the questions in their workbooks.
- 3. What are stars made of? Teacher and students will discuss.
- 4. Students will read the text individually or in pair and answer the questions in the text.
- 5. Let the students share the answers to the class and teacher do the necessary correction.

Homework:

Ask students to explore about The Universe from the internet or from the library.

	1.11 Shooting Stars are not stars
Objectives:	Students should be able to define and differentiate shooting Stars, Stars, Meteors, meteorites and Galaxy
	State the reason why we cannot travel to Stars.
Skills:	Exploring and recording about the Stars.
Activities:	Reason out why people can't travel to stars after reading the text.
	Students choose and write on ONE of the topics given the text.
Time:	2 periods.
Organization:	Individual or group work.
Resources:	References (library books, website)
Vocabularies:	Meteors, meteorites, Milky Way, Galaxy, Spacecraft, Spaceship

Teacher information:

There will be a project on the day or night sky. Some libraries will have books that give instructions for these projects. The project should be a minimum of half a page of writing and a picture or a diagram.

Use the World Book Encyclopedia and the collection of Science and Geography books in the library. Do allow time for the students to look at such materials, including pictures of rockets, satellites, telescopes and heavenly bodies. Help students who are interested to find diagrams of star patterns. A student may want to query the Dzongkha lopens for more information on Bhutanese views of the universe. Welcome and encourage this.

The lesson:

- 1. Discuss the text in the class.
- 2. Ask questions such as "Has anyone ever seen a shooting star? Are all the little bright lights you see in the sky really stars? Do you think stars move around in the sky? Can we travel to the stars in a space vehicle? Have you seen what looks like a river of stars across the sky?"
- 3. Look for pictures and diagrams to show galaxies,

meteors, meteorites, planets and spaceship for better understanding.

- 4. Let students watch the sky at night for two to three hours to see the shooting stars and changes of stars patterns. Ask questions such as "Are there any changes? Why?
- 5. Let students choose one of the topics given in the text and write on it as a project or students can do projects on the following topics:
 - Observing and recording the phases of the moon for one month.
 - Observing and recording apparent changes of position of the sun as it sets each night.
 - Investigating and writing about one other planet Investigate and write about space travel.
 - Writing and illustrating own story or a folk story about the moon, planets, sun or stars.
 - Observing, recording and writing about star patterns in the sky.
 - Investigating and writing about shooting stars and meteors.

Home work: Ask the students to revise the text for test yourself.

1.12 Test Yourself

Teacher Information:

Divide the students in two groups. Test yourself will be played as a quiz. In advance, teacher should prepare the questions in a piece of paper. For the correct responses teacher will award the mark.

Homework:

Let students complete the activities under the topic "Test Yourself" in their note book.

Block Two: Our History

Aims:

The emphasis in this block is on investigating history close to home: oneself, the family and the village. This is an introduction to investigative techniques for exploring the past, to historical dating with the calendar, writing history (oneself, the family and the village) with pictures and making genealogical diagrams. All of these skills will be needed for the sections on Bhutanese history in Block Four and on our world in the past in Block Five.

Objectives:

Students will be able to:

- 1. Define history and can investigate, write and illustrate histories of their own lives;
- Compare dates in Bhutanese and Christian calendars, and make graphs showing animal years in which class members were born;
- 3. Make a diagram showing their own direct ancestry;
- 4. Investigate and write the histories of their own families;
- 5. Investigate, write and illustrate the history of their village or town.

Student background:

Students made a personal timeline in Class IV Social Studies, which should have given them good preparation for writing a personal history in Class V. They investigated important old buildings in the village, and may be able to use the information they gathered when preparing the village history. In some Nursery Approach for Primary Education schools, Class IV students also investigated the history of the Local River or forest. They can also build on this information in Class V.

They used Bhutanese and Western calendars to establish dates for local and national holidays and

they learned Bhutanese history through study of these holidays. They learned four important dates for Bhutanese history (487 BC. Buddha's Parinirvana), (746 AD-Guru Rinpoche came to Bhutan), (1616 AD. The Zhabdrung came to Bhutan), and (1907 AD Ugyen Wangchuck became the first king of Bhutan]) and learned to locate these and other dates on a class timeline. They were introduced to the concepts of AD and BC. They were asked to find both the Bhutanese animal year and the Western date for the year in which they were born.

Relationship to other subjects:

Ask Dzongkha lopens to help teach use of the Bhutanese calendar. They will usually be good sources for local history. There is a lot of writing in this block. The cooperation of the English teacher will be helpful.

Timing:

Only about 20 periods of class time are required for this Block. There is, however, a large amount of outof-class work required. At least four weeks should be allowed for the investigations and writing.

Vocabulary:

New words in Block Two are: century, Kuensel, ancestors, great grandparents, great great grandparents, Western, cousins, half-brothers, half-sisters, step-father, step-mother, landscapes, population and childhood. Help students with spellings and meanings of any additional words they need when investigating and writing their histories.

Planning for Block Two:

Much of the work is outside of class time. The assigned periods for Block Two may not be needed. It is suggested that some of the periods be used for revision of Block One in preparation for the term test. One or more work periods could also be set aside for finishing the work assigned.

	Distribution of Topics		
Week	No.	Lessons	Periods
Seven	2.1	Your Own History	2
	2.2	Bhutanese and Western Calanders	3
		Revision of Block One for term test	1
Eight	2.3	Your Family History	5
Nine	2.4	A Village History	5
Ten	2.5	Test yourself	2
	2.6	Do you remember Bhutanese history?	2
	2.0	Revision and evaluation of Block Two for term test.	1

2.1 Your Own History

Objectives:	Students will be able to define History, investigate, write and illustrate histories of their own lives.
Activities:	Discuss and define the term 'History'
	Investigate, write and illustrate histories of their own lives.
Skills:	Framing questions about the past, investigating, dating, interviewing, exploring and writing.
Time:	2 periods (One period to introduce and discuss the topic, and one period several days later to write under the teacher's supervision. The investigation can be done as homework).
Organization:	Students should do the text activity with the help of parents, grandparents, friends and teachers.
Resources:	Crayons or colored pencils and photos.
Vocabularies:	Childhood.

Teacher information:

This activity introduces investigation and recording of history. Students should be encouraged to ask questions about their childhood to their parents, grandparents, friends, brothers, sisters and teachers to recall the forgotten parts. They should learn to identify and use year dates from the Western calendar for historical dating. This is the dating they will use for the study of history in higher classes, as well.

Students made a personal timeline in Class IV.

They were also encouraged to find equivalents for Bhutanese animal year on the Western calendar.

Most of the work for this lesson must be done out of class. You can do the activity 2.2, while the students are gathering information.

Some or all of your students may be boarders who cannot contact their families for this investigation. In this case encourage them to ask teachers and classmates for additional information about what happened to them in past years.

The lesson:

- 1. Ask the students to read pg. 22 as homework the day before you discuss it together in class.
- 2. Open the discussion by asking questions based on the text: What is history? Who were some important people in Bhutan's history? (Lord Buddha, Guru Rinpoche, Zhabdrung Ngawang Namgyel, Gongsa Ugyen Wangchuk etc.). Say something important each one did. (Lord Buddha taught us how to live, Guru Rinpoche brought Buddhism to Bhutan Zhabdrung, Ngawang Namgyel built many Dzongs in Bhutan and Gongsa Ugyen Wangchuk brought peace to Bhutan etc.)What else do you know about them?
- 3. What do you remember about your own history? Do you remember the timeline you did for your own history in Class IV? How can you learn more about your own history (ask parents, friends, brothers and sisters about forgotten events)?

Homework: Students should make notes about their own history in their rough books. They may ask parents, etc. about dates, events. They can make a timeline to help themselves sort out and order dates and events.

Follow-up: Ask students look at the questions in the text for homework. Final writing on the personal histories should take place under your supervision.

2.2 Bhutanese and Western Calendars		
Objectives:	Students will be able to compare dates on Bhutanese and Western Calendars. Make a graph showing animal years in which class members were born.	
Skills:	Reading and using calendar, dating by both Bhutanese animal years and Western year dates and making a graph.	
Activities:	Compare dates on Bhutanese and Western calendars and make a graph showing animal years in which class members were born. (Text pp. 23 and 24)	
Time:	3 periods	
Organization:	Students should be in groups/pairs for comparing dates of	
	Bhutanese calendar and Western calendar.	
	Students will make a class graph individually.	
Resources:	Crayons or coloured pencils, rulers, Kuensel calendars (Dzongkha and English versions) and squared paper (as in Maths exercise book) for graphs.	
Vocabularies:	Century, Kuensel, Western	

2.2 Bhutanese and Western Calendars

Teacher information:

In Class IV students used calendars to find the dates for festivals. They also learned to translate Bhutanese animal year dates into Western calendar dates when they made their personal timelines.

In Class V there is an introduction to using the calendars for historical dating. In this and higher classes the students will use Western dates for both Bhutanese and non-Bhutanese historical events.

The emphasis in English language classes (all except

Dzongkha) will be on the Western calendar, but students need familiarity with their own calendar and should have some concept of how to calculate dates in both. Please ask the Dzongkha lopen to help teach the Bhutanese calendar!

The information here should not be actively taught to the students, but is for you to use as resource material when they ask questions. The information on the Bhutanese calendar is still incomplete. You can help us improve it.

Bhutanese calendar	Western calendar
1. It is a lunar calendar. Many people have based their calendars on the phases of the moon. The moon has no effect on the seasons, but it is easy to observe the changes in the moon and use them to calculate the passage of time.	1. It is a solar calendar. The Western calendar is based on the Roman calendar which was a sun calendar invented about 2,000 years ago. That, in turn, was based on the ancient Egyptian calendar. Which was also calculated from the sun?
The Bhutanese calendar comes from the old Chinese moon calendar. The Shang Chinese learned as early as 3,500 years ago (1,500 BC) that the earth goes around the sun every 365 ¼ days. However, by that time the moon had assumed great religious significance. People made some adjustments to fit more closely to the sun, but they did not want to give up counting by moon phases.	Students will learn in Block Five a little about the first civilizations on earth, the peoples of Sumer and of Egypt who made many important discoveries 5,000 years ago! Most of the world's people were still living in trees or caves then, but these people built great cities. They also developed very good calendars.
Bhutan's calendar, for instance, is carefully calculated each year to make sure that the first day of every month is the first day of the new moon, and the 15th is the first day of the full moon. This requires some elaborate adjustments, including both double dates and skipped dates.	The Egyptian astrologers and astronomers discovered that it takes about 365 days for the earth to travel around the sun, and that the changes in seasons are also related to the earth's movement in relation to the sun. (You can relate this to the material in Block 1). Their sun calendar let them predict Seasonal changes; something which a calendar based only on the moon can do.
2. It has 30 days in a month but sometimes it adds or skips days.	2. It has 30 or 31 days in a month except in the month of February.
All months end with the 30th day (Namgang) and seem to have 30 days each. However, if the stu- dents count the days in each month they will find that some months actually have only 29 days. This is because the cycle of moon phases is not exactly 30 days. It takes the moon 29 ½ days to go around the earth. The astrologers or calendar makers, adjust by skipping or adding days in each month. The names of the days are Dawa, Migmar, Lhagpa, Phurba, Pasang, Penpa and Nima. (If you discuss the names with your students you can also ask them to translate the Dzongkha names into English).	The word month comes from moon, a carryover from earlier moon calendars used in Europe before the Egyptian- Roman sun calendar was introduced. Some days are names after the old gods of Norway (Thursday is Thors day, or the day of the thunder god. Wednesday is Woden's day, or the day of the king of gods). Others, like Saturday, are named for ear- ly Roman gods. Sunday, of course, is named for the sun. There are seven days in a week, one for each of the seven planets known to early astronomers.

Bhutanese calendar	Western calendar
3. One year is 12 months.	3. One year is 12 months.
Actually, in order to adjust to the sun calendar, the Bhutanese must add an extra month every few years. In 1992 there was a double month.	The sun calendar must also be adjusted. Some ancient calendars had 12 months of 30 days each, and then allowed five days of undated celebrations to make a total 365 days.
The months do not have names, but are usually just called first, second, third month, etc. Here is one way to remember which months on the Christian calendar have 31 days.	The Western calendar adds one day each to seven of the months, and subtracts two days from February to allow for the extra five days. Every four years February has 29 days to adjust for the ¼ extra days in the 365 ¼ yearly sun cycle. It is a rather complicated adjustment
	that is difficult to remember correctly! Some months are named for Roman gods (March for Mars), some are named for Roman rulers (July for Julius Caesar) and some for numbers. The numbers are from a very old calendar, however. September means seventh month, but now it is the ninth! October means eighth, November is ninth, December is tenth but the numbers are now meaningless.
4. The new year falls on the first of the first month on the Bhutanese Calendar. It is called Losar. It comes in February on the Western calendar.	4. The first day of the New Year is on1st day in the Western calendar. It is called New Year's Day. It is usually in the eleventh month on the Bhutanese calendar.
In 2015 the Drukpa, New Year came on February 19th and 20th in the Western calendar. The date will vary from year to year.	The first month is called January for the Roman god Janus who could look both forward (into the new year) and backward (into time already passed).
The eastern and Tibetan New Years come about a month later, and are also widely celebrated as Losar. However, everyone in Bhutan accepts the Drukpa Losar for calendar dating.	in March, of Spring. That is why September, the ninth
The Bhutanese also celebrate January 2 every year as the day of the winter solstice. The actual date of that solstice (the shortest day of the year	
Both calendars are very ancient and hence of confusing and hard to use. Both are difficult to use historical dating. There are two good proposals international calendar reform. However, most peo do not like to give up their old, familiar calendar The calendars may be faulty and not as useful they could be, but through the centuries they h become tied to religion and culture.	e for 1. Let the students seat in groups and pass out for the Kuensel calendars. Begin by comparing pple the calendars as in the box. You may bring in ars. additional information (as in the teacher's notes l as above, or from your own knowledge).

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Relate the calendar to what the students have learned in Block One about the sun, moon and the seasons. Refer to this lesson again when you refer to the calendar and dating again in Blocks IV and V.

- text, p. 23). Begin with March, or with the current month. Students will write in their workbooks:

Western date Bhutanese date March 1 First month, 11th day Second month, 12th day April 1

- 3. Ask those students who finish early counting the double days in each month of the Bhutanese calendar. They can also look for skipped days in each month.
- 4. Most students should know already the animal year in which they were born. Compare animal and year dates. (See text on p. 24).
- 5. Do a quick class survey. Find out how many students (if any) were born in each animal year. Write the results on the blackboard.
- 6. Distribute squared paper and ask each student to make a bar graph showing how many students

were born in each animal year. By Class V they should no longer need much help with this, but you should move about the classroom as they work and give help when needed. Students should also be able to help each other within their groups, but they must not copy the work of another.

7. Finished graphs should be glued in the workbooks, opposite the table comparing calendar dates.

Homework:

Read the next lesson (2.3).

2.3 Your Family History		
r		
Objectives:	Students will be able to make a diagram showing their own direct ancestry.	
	Investigate and write the histories of their own families.	
Skills:	Framing questions about the past, investigating, rough dating, interviewing, making a diagram, paragraphing and writing.	
Activities:	Investigate own direct ancestry and make a diagram. (Text p.26)	
	Write about their own family history based on their own investigation.	
	Answer the questions given in the text.	
Time:	5 periods	
Organization:	The students will investigate, draw and write individually.	
Resources:	Rough book	
Vocabularies:	ancestor, great, great, great grandparents, Cousin, half-brother, half- sister, step-father, step-mother	

Teacher Information:

Encourage or develop curiosity about the past history of their own families, interest in their own ancestors and a sense of their reality.

The family history chart records the ancestors from whom you directly descend. The family history chart includes four generation in the familiar standard format. Males are commonly entered on the left hand side of each branch, and females on the right. Students will make a diagram of their direct ancestry. This is not a family tree, and it should not include step parents, aunts, uncles or cousins. Full sisters and brothers may be included, but this is not necessary and may be confusing. The emphasis is not on the extended family here, but on our ancestors: the parents of our parents, and their parents and grandparents, who are directly responsible for making us what we are.

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This is very simple introduction to genetics. Reference is made to the male seed (sperm) and the female egg which join to become a new child, and to the fact that it is these direct ancestors who determine what we are: we could not be here in our present form if even one of these ancestors had not existed and contributed to our existence.

There is, however, no reference to genes, dominant and recessive genes, etc. That is left to higher classes. It is important that students learn the concept of direct ancestors, however. This will also be important in the introduction to evolution in Block Five.

If most or all of your students are boarders it may be very difficult for your students to query their parents, etc. and make this diagram. Accept late work if it is possible for them to write home for information, or if they will have a home visit during the year.

Some students will not be able to learn much about their ancestors for other reasons. Some families have had disrupted histories. The name of a parent or grandparent may not be known. Avoid letting this become an embarrassment.

Encourage the students to learn as much as they can even if it is very little. Awareness of and curiosity about the past is in itself an important first step.

The Lesson:

1. Students should have read the lesson in advance. Ask some questions:

What is family?

How many members are there in your family?

Do you like to spend your time with your family?

How is family important in your life?

- 2. Introduce the word ancestors. Ask Students to use their dictionaries. Be sure that they also know great and great-great grandparents, cousins, half-brother, half-sister, step-father and step-mother. Show them the family diagram on p. 26.
- 3. Look at the rest of the lesson and then at the diagram on page 26. Discuss how students can find the names of their direct ancestors.
- 4. Let students make the diagram in class. They can use two facing pages in their workbooks. Walk about and give help as needed.
- 5. Students should have read the lesson on p. 26 before the writing session in class. Look at it briefly with them. Make sure they understand the need to write in ordered paragraphs.
- Students should write the first version in pencil in their rough books. You should walk among them, make corrections as they work, put any needed spelling words on the board, etc.
- 7. When the student finished his/her work and corrected it to your satisfaction, ask to copy into the workbook. Ink may be used for the fair copy.
- 8. Students who finish the work early may also start illustrating

Homework:

Ask students to read 2.4 as home work.

Objectives:	Students will be able to investigate and write the history of their village or town.
Skills:	Investigating history, framing questions, interviewing and dating. recording, drawing and writing.
Activities:	Discussion on the topic and sharing. Investigating, drawing and writing history of their village or town.
Time:	5 periods
Organization:	Students should work in groups of eight. Each group will consist of 4-5 members.
Resources:	Crayon or coloured pencil.
Vocabularies:	Landscape, population

This is a more complex activity requiring investigation of history. The finished work is to be shared with the whole class. The investigation should be done in groups. Each group should take an aspect of the history. You may use the eight questions in the text, or think of others of your own. You will need to help students think of how they can find the information they need. It will be good if you talk with some resource people in advance. You may wish to invite one of them for a class interview, or make arrangements for a few students to visit and do the interview themselves. Students in each group may divide the work among themselves. Ideally students will prepare enough material to make two books: one to keep and one to send to the sister school. The best material should go to the sister school.

The lesson:

1. Open the lesson by asking a few questions:

What is a village?

Is your village old or new?

Do you like your village?

Do you know the history of your village?

Discuss on the topic and then let students to share what they know about their village.

 Look at some of the questions together (p.28). Can they think of other questions or other things to learn about? Do they know the answers to some already? If not, how will they find out?

- 3. Look at question 2e. Can they think of people who can tell them about the village history?
- 4. Divide the students into eight groups. Assign the area of investigation as follows:
 - a. History of temples and monasteries.
 - b. History about village stories.
 - c. History of the market area.
 - d. History of farms and farming.
 - e. History about locality.
 - f. History of the school.
 - g. History of roads and bridges.
 - h. History about festivals
- Let groups discuss their own areas of investigation. Encourage them to think of additional or other more appropriate questions. Ask them to think about who they can ask, how they can find out
- 6. Walk among the groups. Ask questions and give help as needed.

Homework:

The investigation itself is homework. Allow several days. Ask students daily how they are coming. Give suggestions as needed.

Follow-up:

Group Presentation by each group

2.5 Test Yourself

Use this lesson for revision of the Block.

- 1. Students will use it as an open book test or they will do it at home/class. Check the answers together in class.
- 2. You can also use all or part of it as a pre-test before the term test. It tests the same objectives that are to be tested in the term test.
- 3. You can also use it again for revision at the end of the year before the final exam.
- 4. You can also use questions from the question.

Answers:

- History tells us about what happened in the past. It can be about important people or important things that happened. It can also be about us and our families, our schools or our villages. (Refer to pages 23-24).
- 2. Our ancestors are our grandparents and great grandparents etc.

History tells us about the past.

We must investigate to learn about history.

Your mother's mother is your grandmother.

Your father's grandfather is your great grandfather.

2.6 Do You Remember Bhutan History?

The information on page 30 is from Class IV. This material should not be tested in any term test or exam. It is an extra lesson for students to revise what they have learnt in Class IV history lessons. You can let students work on this lesson as homework. If you have time, you can let them do it in groups in class. Do not spend class time on it if you are behind in the syllabus work. You can suggest students trying of their own and see how they can do.

1. Lord Buddha dies in 487 BC (or about 500 BC).

Guru Rinpoche came to Bhutan in 746 AD (or about 750 AD).

Zhabdrung Ngawang Namgyal came to Bhutan in *1616 AD).*

Ugyen Wangchuck became the first Druk Gyalpo of Bhutan *in 1907 AD.*

2. First King 1907 to 1926 *Ugyen Wangchuk*. Second King 1926 to 1953 *Jigme Wangchuck*.

Third King 1952 to 1972 Jigme Dorji Wangchuck.

Fourth King 1972 to 2008 Jigme *Singye Wangchuck.*

3. Tell three teachings of Lord Buddha. (Any three teachings. Answers can include: *Don't tell lies. Don't steal*.

Be kind to other people.

Don't kill or harm other animals. Always say what is true.

Don't hurt your body by using things like ara, tobacco or doma).

4. Yellow is the symbol for the king.

Orange is the symbol for the lamas.

5. Zhabdrung Ngawang Namgyal built Simtokha Dzong, Rinpung Dzong in Paro and Punakha Dzong. He also built Drugyel Dzong, Dagana Dzong, Trongsa Dzong, Thimphu Dzong and Wangduephodrang Dzong.

He made the Thimphu Dzong (Dechenphodrang) stronger. Now it is in a new place and it is called Trashichhodzong.)

6. *King Jigme Singye Wangchuk will* be the answer for Class V students born in 1972 -2008 and King Jigme Khesar Namgyal Wanchuck for students born in 2009 and later.

Aims:

This block builds on the investigations of local land and weather conducted by the students in Class IV and is the first systematic introduction to the relationship between altitude and weather throughout Bhutan.

Students learn about rivers and mountains in Bhutan and about the various altitude regions and the relationship of altitude to weather and to plant and animal life. They also investigate temperature, wind patterns and rainfall in various regions of Bhutan. They pay special attention to comparing the weather, animal life and vegetation in their own locality. They continue to practice the skills of the young social scientist: classifying, mapping, diagramming, graphing and reading, using and making tables.

Objectives:

Students will be able to:

- 1. Draw and use political and physical globes to locate oceans, continents and countries, and to investigate geographical features.
- 2. Answer questions given in the text, after reading the story about the formation of the Himalayan Mountains and find out how prints are formed on rocks.
- 3. Define types of the valleys and explain how valleys are formed. Name and show the four important river systems of Bhutan and the rivers in their own locality.
- 4. Define the meaning of altitude with the examples.
- 5. Interpret information given in the table about altitudes and answer the questions from the text.
- 6. Use a table of altitudes to enter altitudes on a map of Bhutan.
- Find the information about the altitude of different places and their features from the text.

- 8. Make and read a regional altitude map with a key.
- 9. Identify the national bird, tree, flower and animal, at least three wild animals and plant for each altitude region, say briefly how altitude and weather affect the lives of people in each region, draw an altitude diagram and write the names of three plants, animals and trees.
- 10. Compare temperatures in different altitude regions and explain how the altitude and the earth's tilt affect temperatures.
- 11. Explain that winter winds are cold and dry, and blow from the north across China and Tibet.
- 12. Explain that summer winds are warm and wet, and blow from the south across the Indian Ocean and the hot plains of India.
- 13. Students will be able to draw a diagram of rain shadow and answer questions on rainfall in Bhutan.
- 14. Interpret information in a table and map, and then make a graph comparing average rainfall in various places in Bhutan.
- 15. Analyze why some area gets more rainfall than the other are

Student background:

Students made instruments and observed and recorded weather all year in Class IV. They should have already shared some of this date with their sister school. They also observed, studied, made drawings and a relief model of local landforms and they should know the necessary vocabulary and concepts. They studied their own river in some detail, learned the vocabulary needed to express concepts, and learned their own river system and the river course from the source to the Brahmaputra and the Indian Ocean. You should be able to build on this information in Class V as you look at variations in Bhutan's physical geography, and the relationship between altitude and weather.

Relationship to other subjects:

Encourage students to learn the names of wild animals and plants in Dzongkha from the Dzongkha lopens. They may also find out the names in the local language, but they should learn the English names for use in Social Studies. The altitude, temperature and rainfall tables can all provide material for word problems in Mathematics. Ask the Mathematics teacher for help with graphing and scale work if you need it.

Timing:

A minimum of 27 periods are suggested for this block. It should be possible to cover the block in six weeks.

Planning for Block Three:

Here is a suggested block plan.

Week	No.	Lesson	Periods
Eleven	3.1	Where is Bhutan?	3
	3.2	The Himalayas	2
Twelve	3.3	Rivers and Valleys of Bhutan.	2
	3.4	Altitude	3
Thirteen	3.5	Altitude by Regions	5
Fourteen	3.6	Temperature.	2
	3.7	The Winter Winds	3
Fifteen	3.8	The Summer Winds.	2
	3.9	Rainfall.	3
Sixteen	3.10	Test Yourself	2

Objectives:	Students will be able to draw and use political and physical globes to locate countries and continents, and to investigate geographical features.
Skills:	Differentiate the usage of political and physical globes.
Activities:	Answering questions given in the text using physical and political globe. Drawing a globe and an island.
Time:	3 periods.
Organization:	Teacher demonstrates the use of physical and political globes. Students work in a group of 4-6 and answer the questions given in the textbook.
Resources:	Political and physical globes for each group, coloured pencils or crayons. (If your school does not have sufficient globes, wall maps of the world and/ or school atlases can be used. However, make sure that every child has as much experience as possible with the globe).
Vocabularies:	Equator, continent, island, political, physical, atlas, globe, names of countries in Asia.

The primary purpose of this lesson is to introduce students to use of the globes. You can supplement with flat maps of the world if necessary, but make sure each child gets to use a globe for at least part of the lesson.

This is a self-teaching lesson. The vocabulary and concepts have all been introduced in earlier lessons in class IV. Above vocabulary words given in this lesson are just for the revision.

After the introduction of the globes and maps if necessary) let the groups work independently using the text as a guide. Students may help each other find the answers to the questions but no one should simply copy another's work. Walk among the groups giving help as needed and making sure that all are participating.

Some groups can work with the political globes while others can work with the physical globes. When they have answered all the questions, groups may change the globes. (This allows for sharing of scarce resources in the class room).

The lesson:

- 1. Students sit in groups. It will be best if there are no more than five students in a group.
- Distribute the globes or maps all physical to some and all political to others. Display globe on the table if resources are limited.
- 3. Look at them together for a few minutes. Can you see the differences between two globes? Do these two globes share the same information? Can you find countries on both globes? What can you find on the globe that does not show countries?
- 4. Students who have difficulty with English grammar and spelling – or with answering questions correctly, should work in their rough books first, so that able students can help low achievers with corrections. Others may write directly (and carefully) into their notebooks.
- 5. Walk among the groups and give help and suggestions as needed.
- 6. Students who finish more quickly may do the drawings in class. Others should finish them as homework.

Objectives:	Students will be able to answer questions given in the text reading the story about the formation of the Himalayan Mountains and find out how prints are formed on rocks.
Skills:	Reading for information and writing answers, investigating on how prints are formed.
Activities:	Reading for understanding and answering questions about the formation of the Himalayas.
Time:	2 periods.
Organization:	Individual reading, writing and find out how prints/ fossils are formed on the rocks.
Resources:	A flattened sheet of clay (from the science cupboard) or a blanket or flannel cloth. Clay, sticks and leaves, hand prints
Vocabularies:	Print, shell, Mount Everest, remains, neighbouring, peak fossil

Use clay to demonstrate mountain folding and also to demonstrate fossils, or *prints*. Let students press a leaf, a stick, hand or some other object into a piece of clay to make a print. You can explain that when animals, plants or sea shells left prints in the mud of clay millions of years ago the mud sometimes became hard rock. That's why we still have prints of animals and sea creatures that lived millions and millions of years ago. Scientists and historians study these prints to learn about the past long ago.

The lesson:

- Begin by asking questions and discussing answers. Make sure the questions are distributed evenly among the students. Change the statement into questions as you take the students through the story, paragraph by paragraph.
- Ask students to compare the picture of India on the globe and in the text book than ask questions. (E.g. did the earth always look like it does now on your globe? Was there always a Himalayan mountain range? Where was Bhutan before there were any Himalayan mountains? Do you believe that? How do we know?) Ask the students to answer in full sentences.

- 3. When asking questions about the second paragraph it will be best to demonstrate print (or fossil) and tell them how prints are formed on the rocks. (See teacher information above).
- 4. Demonstrate on how mountain folding was created. Let a student push a book or a piece of wood against a flat strip of clay, a blanket or a piece of flannel cloth to show how mountains were formed.
- 5. When you have finished asking the questions let the students answer in writing the questions given in the text. They need not copy the questions. If they answer in full sentences they will have a paragraph about the Himalayas.
- 6. Let the students help each other but not copy each other's work. Move among them giving help and making corrections as needed. They can write in their rough books first, make corrections, and then copy the corrected work in their notebooks. Students who finish early can illustrate their work.

Homework: Students should read the next lesson.

Objectives:	Define types of the valleys and explain how valleys are formed.	
	Name and show the four important river systems of Bhutan, the rivers in their own locality.	
Skills:	Reading facts and figures about valleys, memorizing, locating and plotting rivers in the map of Bhutan.	
Activities:	Naming and showing on a map the four important river system in Bhutan and answering questions given in the text. (Text pp. 36-37)	
Time:	2 periods.	
Organization:	Individual work, general discussion and pair work.	
Resources:	Cyclostyled maps for students to fill in, a wall map of Bhutan, Asia/ world.	
Vocabularies:	Relevant river names, wide valley, narrow valley, deep valley, river-load	

Students read the text individually. Teacher provides examples of deep valleys, narrow valleys and wide valleys.

Students do not need to learn the names of all the rivers on the map in Class V. Students need to learn, only the names of the most important river in each river system, the important rivers in their own river system, and the important river nearest to their sister school. In Bhutan we know these river systems as the Amo Chhu (called the Torsa by Indians), the Wang Chhu (called the Raigye or Raidak by Indians), the Puna Tsang Chhu (called the Sankosh by Indians) and the Manas Chhu. Please teach the students to use the Bhutanese names for these systems.

In Class IV, students have already learned about their own river and should have a good knowledge of it. They have also entered names of major rivers in their own river system on a map, and learned that they flow into the Brahmaputra, so this part will be revision for them. Use the map of Asia to explain/ show the flow of rivers to Brahmaputra.

The Lesson:

1. Begin the lesson by asking what they remember about their own river from Class 1V. What is the name of the river? Let them share other information they remember (about the source, mouth, river bed, river load, current, etc.).

- 2. Distribute the blank river maps, one per student. Students should open their texts to pp.36. The text is a revision of Class IV work. Ask students to read the text. Discuss with the students how the different types of valleys are formed with examples.
- 3. Ask them to look again at the map in the text. Do you know the names of the four most important rivers in Bhutan? Each river system drains a group of valleys that join each other. There are mountains in between the river systems. What other rivers are there in the system? Which other rivers join to make a river system? Which Indian rivers do they flow into? (The Brahmaputra). Where does it go? (to Bangladesh and the Indian Ocean). Ask students to come up and locate each of these on the wall map of Asia. Show Brahmaputra using the Asia/world map and name the river systems that join Brahmaputra.

The four major rivers are Manas Chhu, Pung Tsang Chhu, Wang Chhu and Amo Chhu. Ask them to find each of these rivers on their maps. Ask them to find their own river system and look at the names of all the rivers in it. Ask them to look at the river system of their sister school. What is the name of that river system?

- 4. Let students work in pairs and take turns finding these rivers on their maps. One student should look at the text and the names of the rivers to be learned, and ask his partner to locate them, on the cyclostyled outline map of Bhutan in turn. Partners should correct each other and practice until they can find each of the rivers quickly.
- Finally, you can ask each student to copy names of the four river systems onto outline maps. Each river system should be made a different colour. They may also write in the names of their own locality.
- 6. Tell them they must learn the rivers they have written in the text as homework. They will be tested on those.

Homework:

Let students answers the questions given in the text.

Objectives:	Define the meaning of altitude and enter altitudes of different places on a Map of Bhutan.
Skills:	Investigating altitude and its effects on land, animals and people.
Activities:	Entering the altitudes of different places on the outline map of Bhutan and answering the questions given in the text.
Time:	3 periods.
Organization:	Individual reading, discussion and group work.
Resources:	An outline map of Bhutan, glue
Vocabularies:	Altitude, flat, sea level, height, Netherlands

3.4 Altitude

Teacher information:

This is a brief lesson designed to introduce the term altitude. Let the students review each box quickly and then ask questions. (What does the word altitude mean? Do we use it when we are talking about people? What do we use it for?) You can ask them to spell it. The altitude is not same on the land but is same all over the sea. The altitude increases as we move from plain towards the mountain.

The Lesson:

1. Look at the written information; let the student read the word altitude and the definition of the altitude.

- 2. As the students move from paragraph to paragraph ask questions. What is an altitude? What does as altitude tell us? How do you know that the altitude all over the sea level is same? Why is Bhutan colder than the flat land of India?
- 3. Let students find out few places that are close to the sea level. (E.g Netherland and most part of the Indian soil).
- 4. Ask students to copy the altitude table in their notebooks and then help students to answer the questions given on page 39. Here is an additional list of altitudes not included in the text.

На	2,780 metres	Zhemgang	1,520 metres
Phuntsholing	210 metres	Sibsoo	1,220 metres
Punakha	1,580 metres	Trongsa	2,170 metres
Jakar	2,740 metres	Mongar	762 metres
Lhuntse	1,370 metres	Trashigang	990 metres
Trashiyangtse	1,640 metres	Samdrup Jongkhar	150 metres
Geylephug	210 metres	Damphu	1,530 metres
Sarpang	270 metres		

- 5. Help students to make an altitude-diagram of Samtse, Zhemgang, Punakha, Wangdue, Dagana and Thimphu.
- Distribute the outline maps of Bhutan. Look at the map on page 40 together. Let the students read the altitude map and add more information from the altitude table from page 39
- Students who finish should glue the map into their notebooks and then answer the questions provided on page 40. Let them provide short

answers in their rough books. Check and correct answers as a class. Then let them copy the corrected answers in their workbooks.

8. Help students to look at the map which shows different altitudes of Bhutan on page 40. You can ask many questions. Then ask them to answers the questions given on the same page.

Homework:

Ask students to read thoroughly the next lesson "Altitudes by Regions".

3.5 Altitudes by Regions **Objectives:** Students will be able to identify altitudes by regions and investigate their effects on land, people and animals. Identify the national bird, tree, flower and animal according to regions. Skills: Sorting plants and animals according to altitude regions. Activities: Differentiating and mapping the regions by light colour and answering the questions provided on page 47. Time: 5 periods. **Organization:** Students work in groups. **Resources:** Outline Maps of Bhutan, coloured pencils, materials on animals and plants at different altitudes. . Vocabularies: Region, glaciers, central, valley

Teacher information:

This an introduction to the effect of altitude on weather in the three altitude regions of Bhutan. The pictures in the text are given as resource materials to help students identify some of the most common species of plants and animals. Continue to use the UNICEF charts and any other material on plants and animals of Bhutan. Here are some additional plants and animals for each region.

Region 1: Cool High Mountains

Mammals:	tahr (a wild goat)	, nay (wild sheep).
ivianinais.		, may (wind sheep).

- *Birds:* vulture, pipit, mountain finch, horned lark, grandala.
- *Trees:* fir, birch. (No tress grows above 4,000 to 7,500 metres).

Region 2: Cool High Central Valleys and Mountains (1500 to 4000 metres)

Mammals: fox, red panda.

- Birds: hoopoe, crow, black necked crane (but breeds in Tibet at over 4,000 m), grosbeaks.
- Trees: birch, willow, hemlock, fir, maple, walnut, larch, magnolia, spruce, blue pine, poplar, oak, cherry, eucalyptus.
- *Fruits:* peaches, apples, plums, pears.

Flowers: cosmos, marigolds, roses, etc.

Region 3: Hot Low Southern foothills (less than 1500 metres)

- *Mammals:* tiger, elephant, monkeys, wild buffalo, jackal.
- Birds: woodpeckers (golden backed), parakeets, barbets, kingfisher, mynah, bubuls, magpie robin, wagtail, tailor bird.
- Trees: alder, sal, acacia, teak, jack fruit, silk cotton, fig, mulberry.

Fruits:mango, oranges, bananas, betel nut.Flowers:orchids, hibiscus.

The Lesson:

 Read and discuss the regions one by one. (Which region is your school in? Relate the text discussion of each region to what you and the students know about your own school area.

- You can give students a few minutes to go over each page before you begin asking questions. In your questions emphasize these points:

 what is the weather like in each altitude region? (How does altitude affect the weather?
 How do weather and altitude affect the lives of people in each altitude region? 3) What wild animals live in each altitude region? (Do students know plants and animals not given in the text?
- 3. Also ask students to take turns naming the national bird, national animal, national tree and national flower. (Look for good coloured pictures of any of these will help a lot).
- 4. When you've finished the discussion look together at the questions on page 47. Spend a few minutes discussing them together. Let the students try giving answers. Encourage them to take notes in their rough books.
- 5. Then let the students work in their groups. They can help each other answer the questions on page 47. Students can discuss the questions in their groups and then write the answers. Walk around among the groups giving help as needed.
- 6. The diagram of three regions can be entered in the workbook and filled in on a later day. Make necessary corrections and give support as needed. Encourage students to use the UNICEF charts to find additional birds and animals. The animals are generally shown in the correct regions (bottom of the map are region 1, centre are region 2, and those at the top are in region 3).
- 7. Give the students some drill or quick written or oral quizzes to make sure they can sort the animals and plants given in the text according to altitude region. Also encourage students to learn more about each of these animals.

Objectives:	Students will be able to tell the effect of sun, earth's tilt and altitudes on temperatures.
Activities:	Reading and filling in the blanks with the right word. Finishing a story describing how the sun, the earth's tilt and altitude all affect temperatures.
Skills:	Comparing, critical thinking, reading, analyzing
Time:	2 periods.
Organization:	Pair work or guided practice
Resources:	Text book itself
Vocabularies:	Temperature, spins

Teacher can briefly discuss about the temperature, thermometer, altitude, tilt through questioning. E.g. what is thermometer/altitude/temperature etc.? How does altitude affect the temperature? Is the temperature same at the valley and the mountain. Why do we have different at Thimphu than at Gelephu?

The Lesson:

1. Make the students sit in pairs and discuss the paragraphs given on page 48 and decide on answers. They may write the words (without

copying the sentences) in their rough books.

- 2. Let the whole class compare answers. You may wish to compare answers on the first paragraph as soon as all have finished, then proceed with the next paragraph. This will let students concentrate more clearly on each topic. Call on various pair to take turn to read out their answers. Check and agree on the right answers and let students make corrections.
- 3. Students should copy the paragraphs with the correct answers under teachers' supervision.

Objectives:	Students will be able to explain that winter winds are cold and dry and blow from the north across China and Tibet.
Skills:	Reasoning and making a map for the cold winds.
Activities:	Reading and drawing a map showing the direction of winter winds and using it to answer questions on wind direction given in the text.
Time:	3 periods.
Resources:	A wall map of Asia and Bhutan, coloured pencils or crayons.
Vocabularies:	Direction, lakes, Thar Desert

Students will learn more about air currents, cold and hot air, etc. in Science, Block VI. Ask the Science teacher to link this to what they have learned about winds and weather in Class IV and V Social Studies.

The lesson:

- Look at the maps on page 50 and the questions in page 49 together. Discuss them in class. Encourage students to think and answers the questions based on what they have already learned about winds, altitude and weather.
- Let students copy the map. They should know all the words and places except Thar Desert. The concept of deserts is not introduced until Block 6, but you can say that it is a place where there is very little water and not much can grow. You can point out that Tibet is also very dry.
- 3. Once again discuss the questions in page 49. Let students try answering the questions in full sentences. Encourage students to answer in their rough books. Then let the students write the answers in full sentence.

3.8 The Summer Winds

Objectives:	Students will be able to explain that summer winds are warm and wet and blow from the south across the Indian Ocean and the hot plains of India.
Skills:	Reasoning and making a map for the warm and wet winds.
Activities:	Reading and drawing a map showing the direction of summer winds and using it to answer questions on wind direction given in the text.
Time:	2 periods.
Resources:	A wall map of Asia and Bhutan, coloured pencils or crayons.
Vocabularies:	Direction, lakes, Thar Desert

Teacher information:

This lesson can be taught in the same way as the previous one on winter winds. Do not tell the students the answers. Help them reason from the known facts.

3.9 Rainfall

Objectives:	Students will be able to draw a diagram of rain shadow and answer questions on rainfall in Bhutan.
	Interpret information in a table and map, and then make a graph comparing average rainfall in various places in Bhutan.
	Analyze why some area gets more rainfall than the other areas.
Skills:	Interpreting tables, diagrams and graphs. Answering question based on own observations of weather and on text.
Activities:	Discuss about rainfall in the summer season, drawing a diagram showing rain shadow.
	Make a map and a graph showing rainfall and then answer questions given in the text.
Time:	3 periods.
Resources:	Coloured pencils or crayons.
Vocabularies:	Monsoon, moisture, rain shadow, current, seasons, water vapour, Meteorology Section, Department, existing, average, station.

Teacher information:

It is very important for the students to know how the mountain/altitude affects the rainfall. Within their locality too, they might have experienced rain in some part of areas while the other part of the places are free of rain. So using these bases, you can get students to look at the map showing the rainfall in Bhutan and let them analyze, why South East part of Bhutan get more rainfall than the South West part of Bhutan. Let them look at the Asia map and see the location of sea/ oceans near by the Eastern region of Bhutan.

Many new words are in this lesson, so let students get familiar with these words before taking them through the depth of the lesson.

The cloze test activities are important in helping students think through and understand the variations in rainfall within Bhutan, and the reasons for them.

This graph will require rounding of all numbers to the nearest hundredth. 1,625 will become 1,600,

1,389 will become 1,400, etc. Students should have learned this skill in mathematic here they can put it into practice.

Students can allow 2 squares for every 500 cm of rain, or 22 squares up and down. They need 20 squares across for the town names.

You can discuss these requirements with the students, but then let them work independently. They have had considerable experience with graphing, and should be able to do this with relatively little help.

Correct all work in class.

The lesson:

- 1. Let students read the paragraphs about the Monsoon wind together in their groups or in pairs. They should help each other fill in the blanks. They can write the words (without copying entire sentences) in their rough books.
- 2. Compare and correct answers in class.
- 3. Let students copy the story with correct answers

in their workbooks. Those who don't finish may do so as homework.

- 4. Go through the paragraph about the Monsoon wind once again. You can turn each sentence into a question and ask for oral answers. (E.g. What winds cross the mountains in the north of Bhutan? Is Tibet on the north or south side of Bhutan? Is there much water vapour in the clouds when they read Tibet? Why? "They will have already dropped most of it before they crossed the mountains)".
- Let students copy the rainfall map (they must use another of the cyclostyled maps of towns and rivers) and then fill in the rainfall regions. They should colour each regions a different colour and make a key.
- 6. They should use the map and the paragraph about the Monsoon wind to answer the questions. Answer them orally in class first. Then let the students work in groups or pairs while they do written answers. Able students may write full sentence answers immediately into their workbooks. Others should write in the

rough book first.

- For the next lesson students should read the paragraph about the Monsoon wind again, and then look at the diagram carefully. They should discuss the meaning and causes of rain shadow.
- 8. Let the students draw a diagram showing rain shadow.
- 9. Check and correct the work.
- 10. Students can go through the rainfall table and make a graph. This graph will require rounding of all numbers to the nearest hundredth. 1,625 will become 1,600, 1,389 will become 1,400, etc. Students should have learned this skill in Mathematic here they can put it into practice.
- 11. Students can allow 2 squares for every 500 cm of rain, or 22 squares up and down. They need 20 squares across for the town names. Let students work independently to make a graph to find out which place gets the most/least rainfall. Write the reason why some place of Bhutan gets more rainfall while the other part gets less rainfall.

3.10 Test Yourself

Students can do quiz competition among the groups to prepare the questions orally before they go for writing, doing this will help the slow learners to equip them with the information and will gain confident to write the work independently. Teacher can move around to help the needy and provide the support, both in spelling and sentence structure.

Aims

Students will learn the names and locations of the dzongkhags. They will study about dzongs in Bhutan, the story of temples and monasteries, religions in Bhutan, government, the judiciary systems, domestic animals, food crops and cash crops, jobs in Bhutan, transportation in Bhutan and communication in Bhutan.

They will learn about central government and its services, the legal system, and the monastic body. They will also investigate dzongs and monasteries in Bhutan. Through this unit students develop appreciation of our culture, religion, government and resources. They should also gain in appreciation of the many services provided by the government: e.g. roads, transport services, and communication facilities.

Objectives:

Student will be able to:

- 1. Name and locate twenty dzongkhags on a map of Bhutan.
- 2. Recognize and name the important Old Dzongs and New Dzongs, and tell their significance.
- 3. Write a paragraph about the significance of the monasteries. Locate four monasteries (Tango,
- 4. Tharpaling, Taktshang and Chari) and two temples (Jampa and Kyichu) on the historical map of Bhutan.
- Identify different types of religions practiced, festivals and special days celebrated in Bhutan. Draw the structure of Monastic Body and write a paragraph of the Monastic Body Lamas.
- 6. Tell how a government is formed and the different levels of local government.
- 7. Tell about the judiciary system and different types of judiciary courts in our country.
- 8. Identify types of domestic animals found in different regions and their uses.
- 9. Define food crops and cash crops, and name important cash and food crops grown in different regions of Bhutan.
- 10. Name different types of works done by

Bhutanese people, the raw materials available and products produced in Bhutan.

- 11. Classify different modes of transportation and recognize some important safety symbols.
- 12. Tell various means of communication system used in Bhutan.

Student background:

In Class IV students have investigated their own Dzongkhag. They have learned about Government. They have interviewed officials, learned what kabneys they wear and what services they give. They should know the names of domestic animals and crops, forests, markets and workers in their own local area. They were introduced to dzongs built by the Zhabdrung and important local historic buildings including monasteries and temples.

Relationship to other subjects:

- **Dzongkha:** While teaching lessons about government, dzongs and monasteries, temples and religions we can get the help of dzongkha teachers.
- **English:** The collection of stories on monasteries, temples and Bhutanese history could also be an English project.
- Maths: The calculations on travel distances and time require maths skills.

Timing:

It should take approximately six weeks to cover the material. Thirty periods are allotted in the manual, including the Test Yourself exercise. You will also need to allow a week for active end of term revision and for work periods when students can finish their workbooks and projects.

Planning to Block Four:

Block Four includes many activities and will require a full six weeks with five periods a week for Social Studies. You will have to move at a steady pace if you are to cover the entire block by end of term and still have the necessary time for revision. You will do best to allow six weeks for this block. That will give some flexible periods for lessons that take longer than the suggested time and for work periods.

Distributions of topics

Week	No.	Lessons	Periods
Seventeen	4.1	Our Dzongkhags	2
	4.2	Dzongs in Bhutan	3
Eighteen	4.3	The Story of temples and monasteries	3
	4.3	Religions in Bhutan	2
Nineteen	4.5	Our Government	5
Twenty	4.6	The Judiciary system	2
	4.7	Domestic Animals	1
	4.8	Food Crops and Cash Crops	2
Twenty One	4.9	Jobs in Bhutan	2
	4.10	Transportation in Bhutan	3
Twenty Two	4.11	Communications in Bhutan	2
	4.12	Test your self	3

4.1 Dzongkhags

Objective:	A child should be able to name and locate twenty dzongkhags on a map of Bhutan.
Skills:	Reading, recalling, writing and locating.
Activities:	Locate twenty Dzongkahgs on the map of Bhutan and answer the questions given in the text.
Time:	2 periods
Organization:	Students can work individually
Resources:	Outline maps of Bhutan, rough books and workbooks.
	Students may bring their exercise books from Class IV with relevant information.

Teacher information:

This is a revision lesson. In Class IV students have learned about their dzongkhag, its name and location.

The lesson:

- 1. Tell all the students to open their text book and read the questions for two minutes.
- 2. Ask one of the students to read the first question and another student to answer it

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orally. Invite additional students to add or correct information.

- 3. You can continue this pattern for the remaining questions.
- 4. They should copy the questions and answer in their note books.
- 5. Go around the class and help the weaker ones.
- 6. Next, give a copy of map of Bhutan and ask each student to locate twenty Dzongkhags.

Home work:

Ask the students to study the location of each Dzongkhag on a map of Bhutan.

4.2 Dzongkhags in Bhutan

Objectives:	Recognize and name old Dzongs and new administrative Dzongs. Tell historical significance of the Old Dzongs.
Skills:	Research and historical writing.
Activities:	Students read the text and ask them to do some more research on the significance of Dzongs.
Time:	3 periods.
Organization:	Group work
Resources:	Pictures of the Dzongs and other related books from the library.

Teacher information:

The pictures of dzongs in the text are intended primarily as resource material. Students are expected to find out the significance of the Dzongs. A Child can interview learned elders and refer library books and other sources to learn about the Dzongs.

The lesson:

 Students will read the information given in the text and make notes on the importance of the Dzongs.

- 2. Ask students to go to the library and find some more information on the given Dzongs.
- 3. Invite a member from each group to present their findings. The teacher should supplement on their presentations.

Homework:

Let the students ask their parents regarding the old important Dzongs about its historical importance and add to their findings and share in the next class.

Objectives:	Write a paragraph about the significance of the Monasteries and Locate four monasteries (Tango, Tharpaling, Taktshang and Chari) and two temples (Jampa and Kyichu) on the historical map of Bhutan.
Skills:	Exploring and writing about the significance of the Monasteries and locating the six historical places given in the text.
Activities:	Finding out and writing about the significance of the Monasteries.
Time:	3 periods.
Organization:	Group works
Resources:	Historical map of Bhutan.
Vocabularies:	Single, den, Cremated, subdued, worshipped

There are many wonderful stories about the monastries. They are important for many reasons. Some, like the story of Jampa and Kyichu given in the text hold important clues about what actually happened in history. Others are magic tales with little apparent relationship to historical fact, but these too are an important part of our Bhutanese tradition and reveal much about the beliefs of our ancestors and the roots of our culture.

Encourage your students to find and share some of these stories. Mothers and grandmothers often know them. Dzongkha lopens, Bhutanese teachers, lamas and Gelongs are also reliable sources.

Preparation:

You can tell significance about a monastery or invite a lopen or another teacher to do so. If you are fortunate enough to have a reliable person in your village, invite her or him to share with the students. Strongly encourage them to find the significance themselves. Some children may want to share their stories to the class.

The lesson:

 Read the text about Jampa and Kyichu together. You can ask a volunteer to tell the significance in a few sentences. You can ask what they think actually happened (What part of this story do you think is historically true. Why?)

- 2. You can ask students to calculate how many years before Guru Rinpoche came to Bhutan Jampa and Kyichu were built. Who has seen these monasteries? Can they tell more about them? Who remembers the story of Guru Rinpoche at Kuje and Jampa, as told in Class IV Social Studies?
- 3. Locate both monasteries on the historical map. Let students write the names of the monasteries and the dzongkhag where each is found.
- 4. Look at the text about Tango and Chari Monastries together.
- 5. You can ask oral questions about each paragraph. (When did the Zhabdrung come to Bhutan? What was he riding on? What was its name? Who built Tango Monastry? What is the name of the monastery where he stayed in Thimphu? Has anyone been there?) You can also ask what parts of this story they think is historically true.
- 6. On the same historical map of Bhutan, ask the students to locate the monasteries and the dzongkhag where they are located.
- 7. Ask the students to read about Taktshang and Tharpaling monasteries.

8. On the same historical map of Bhutan, ask the students to locate the monasteries and the dzongkhag where they are located.

Homework:

Write a paragraph each about the significance of the six monasteries in their own words.

4.3 Religions in Bhutan

Objectives:	Identify different types of religions people practice in the country. Name the festivals and special days people celebrated in Bhutan. Draw a diagram to show the structure of the Monastic Body Interview and write a paragraph about some important lamas in the Monastic Body.
Skills:	Making a diagram based on material in the text, interviewing, collecting information and writing.
Activities:	Making a diagram showing the structure of the monastic body and interviewing a member of the monastic body and writing a paragraph.
Time:	2 periods
Organization:	Pair works/Individual work.
Vocabularies:	Monk, monastic, Tsheni Lopen, Dorji lopen, Tshugla lopen, Drapoi lopen and Yangpoi lopen.

Teacher information:

You may require extra information on the jobs of five lopens. Dorji lopen helps Jekhenpo in religious administration. Tsheni Lopen is responsible for the teaching of debating. Yangpoi Lopen looks after the teaching of rituals and musical training. Drapoi Lopen looks after the teaching of grammar and translation. Tshugla lopen looks after the religious institutions and colleges of the central monastic body. Now every dzongkhag has Rabdeys headed by Lam Netens as the head Lamas. There are other monastic schools Shedras and Drupdras in some dzongkhags.

The lesson:

1. Have students sit in pairs and ask them to read the text on Religions in Bhutan. Ask them to find out how many types of religions people practice from the text.

- 2. Ask the students to find out which festivals and special days are being celebrated in Bhutan.
- 3. Ask each student to draw a diagram to show the structure of the Monastic Body.
- Ask students to interview any member of the monk body in the village or near the school. It can be a family member. Discuss possible questions in class. They can be given a week to complete the work.

Homework:

Students should do their interviews out-of-class. Students read the next chapter Our Government.

Objectives:	Define the term Government and tell how a government is formed.
	Name the different levels of local government and state at least two functions of Local Government.
	Draw diagrams to show the structure of the central government and different levels of the local governments.
Skills:	Reading, writing, drawing diagrams.
Activities:	Drawing diagrams of the central government and different levels of the local governments.
Time:	5 periods.
Organization:	Whole class/ group activity.
Vocabularies:	Cabinet ministers (Lyonpos), Members of parliament, Opposition Party, Central Government, Constituencies, National Council, National Assembly, Parliamentary Democratic Monarchy, Thrompon.

Students learned about Dzongkhag and Government in Class IV. They also learned to recognize the names of the officers who work on the Dzongkhag and something about they do to help farmers and other people. They drew and coloured the kabneys of all dzongkhag officials.

In Class V there is a simple introduction to the central government. It teaches the way in which the government is formed, the terms of the government, members and chairperson of the local Government Tshogdus and the political parties that took part in 2013 elections. The students learn much of this same information in Dzongkha classes. You can ask for the help of your Dzongkha lopen when you teach this material. Students can be encouraged to ask and find out Dzongkha terms for the kabneys of the king and ministers, and for the Home Minister. Do not test on these Dzongkha language class.

The lesson:

- 1. Students should have read the text in advance. Let one of the students to define the Government.
- 2. Ask students to read the first and second

paragraphs silently. Then ask one student at a time to describe how the Government is formed. Other students may add or correct information.

- 3. Ask one of the students to read the third and fourth paragraphs.
- 4. Then ask questions such as "How many representatives are there in the National Council? How many representatives are there in the National Assembly? For how long do the Members of the Parliament serve?

Who is the first Prime Minister and which party does he belong to?

- 5. Ask the next student to read fifth paragraph aloud. How many parties took part in the 2013 election? Who is the second democratically elected Prime Minister?
- 6. Tell students to read the last paragraph by themselves. Then ask one of the students a question "who is the first Bhutanese woman engineer and woman Minister?"
- 7. Ask students to read text on "Local Government".

- 8. Point to another boy or girl to name the chairperson of the Dzongkhag Tshogdue. How is it conducted? Who are the members?
- 9. Encourage them to ask their Dzongkha lopen to discuss about Tshodu, Tshogde and Demkhong. They can also find out Dzongkha terms for the kabneys, Gyalyong Tshongdu, Gyalyong Tshongde, King and the Ministers.
- 10. Tell everyone to draw diagram of the Central Government, Local Government and the Tshogde structures in their workbooks.
- 11. Ask a student to state three functions of Local Government.
- 12. Students who finish early should then draw and colour the kabneys of the King, Ministers and Gups.

4.6 The Judiciary Systems

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Objectives:	State at least three importance of having laws in our country.	
	Tell the different law makers our country had.	
	Identify different types of judiciary courts and name the head of the Judiciary Courts in our country.	
Skills:	Analyze the importance of having laws in our country.	
Activities:	Answering the questions and making the diagram of Bhutan's courts of appeal and Judges.	
Time:	2 periods.	
Organisation:	Group activity	
Vocabularies:	Law, Judge, Court, Judiciary, Drangpon, Thrim Duen, Ngentho Thrim Duen, Supreme Court, Chief Justice, High Court, Chetho Thrim Duen, Dzongkhag Court, Dzongkhag Thrim Duen, Dungkhag Court, Dungkhag Thrim Duen	

Teacher information:

New words like law, judge and court are in the dictionary. You can ask the Dzongkha teacher to help them with Dzongkha terms.

The Lesson:

- Divide the students into groups and ask them to read the text and answer the questions given below.
 - What is law? If there were no laws what could happen?
 - Who made first laws for our country?
 - Who helps the King make laws now?

- What do you call the National Assembly in Dzongkha?
- Who decides punishment for people who break laws?
- Who are judges in our villages?
- Who is the highest judge?
- 2. Ask a member of the group to present their group answers and let other students provide feedback.
- Ask everyone to draw the different courts of appeal and the judges on a chart. The teacher should go from group to group and correct the work.

4.7 Domestic Animals

Objectives:	Define domestic animals and identify types of domestic animals found in different regions.
	List down the uses of domestic animals.
Skills:	Identifying and listing domestic animals by altitude regions.
Activities:	Reading the text and making a table showing important domestic animals found in the three altitude regions.
Time:	1 period.
Resources:	Children's Geography Book I and II, Social Studies class IV and Student Book.
Vocabularies:	Mithun, water buffalo, wool, skin, herder

Teacher information:

The names of many animals written in the text should be known to the students. In Class IV they have learned the names of some farm animals. They also learned about domestic animals and their uses in lower classes especially in Dzongkha EVS.

- 2. Ask a volunteer to read third and fourth paragraphs.
- 3. Continue with in similar fashion and complete all the paragraphs.
- 4. Ask the students to complete the table reading the text again.

The lesson:

1. Teacher read out the first and second paragraph.

Altitude region	Domestic animals
Southern foothills and low valleys (hot)	
Central valleys (cool)	
High valleys (very cold)	

Homework:

- 1. What is a domestic animal?
- 2. Name some domestic animals? Write down their uses.
- 3. What is a Mithun? Where do you find it?
- 4. Why do the people in the southeast keep Mithun?

Objectives:	Define and name important food crops and cash crops that are grown in different regions of Bhutan.
Skills:	Drawing tables and classifying crops.
Activities:	Defining Food Crops and Cash Crops.
	Making a table and classifying the crops in accordance with the regions.
Time:	2 periods.
Organisation:	Students do this activity in pairs/individual. You can let students help each other.
Resources:	Exercise book, textbook and other relevant books from the library should be available for those who want to try finding more crops.
Vocabularies:	Food Crops, Cash Crops, products, cardamom, lychees, papayas, jackfruits.

The names of many crops written in the text should be known to the students. In Class IV they have learned the crops

grown by their own families and other families in the school village area. They classified crops according to crops that are raised to sell, and food crops.

- 2. Let the students in pairs define the words Food Crops and Cash Crops. Walk around and provide help if needed.
- 3. Check the answers together when everyone has finished.
- 4. Ask them to copy the table (teacher should draw a table on the board/chart) and complete the table.

The lesson:

1. Ask the students to read the text.

Altitude regions	Food crops	Cash crops
Southern foothills and low valleys (hot)		
Central valleys (cool)		
High valleys (very cold)		

Homework:

Ask students do the activity given in the text.

Objectives:	Identify and classify different types of workers in Bhutan.
	Name the raw materials available and products produced in Bhutan.
Skills:	Reading, classifying, investigating and collecting information.
Activities:	Identifying raw materials used in manufacturing products. Listing and classifying workers.
Time:	2 periods.
Organisation:	Individual work.
Resources:	Exercise book, Textbook and other relevant books from the library should be available for those who want to try finding more information.
Vocabulary:	Raw materials, products, manufacture, timber, log and loggers, mine, limestone, concrete, cottage industries, craftsmen and craftswomen.

This topic is to introduce students to some of the kinds of work and workers we find throughout Bhutan. In Class IV, students learned about local workers and classified them into the same categories using simpler language.

Thus the vocabulary service workers, collectors of raw materials, and manufacturers are new and these have to be taught. The concepts and the new words are explained in simple language in the text. Students can also use the dictionary to find the meanings if they do not understand while reading.

The lesson:

- 1. To begin the lesson by asking the following suggested questions:
 - Point to a girl and ask what do you call it that you have on your two shoulders? (Koma)
 - Dorji, do you use it? (No) How is it made? Who makes it?
 - Get a bottle of jam and show to the class.
 - Did you eat this?
 - What is it called? From where has it come?

- Can you think for what it could be made from?
- 2. With this, discuss the new vocabulary as it is introduced. Students will understand it better in context.
- 3. Go through the text paragraph by paragraph asking the questions given:
- 4. Who are called loggers? What do they do?
- 5. Where do we find loggers in Bhutan?
- 6. Where do we find coal?
- 7. Tell the class the uses of coal.
- 8. Look at the walls of your classroom or the corridor.
 - Are they made of wood, stone or sand?
 - Anything else? (Probably cement)
 - Where do you think has come from?
 - Which stone is used to make cement?
- 9. Read about factories given in the text. And ask if there are some factories around their locality.
- 10. Ask the students to name the raw materials used to manufacture the products listed in the text.

11. The teacher should move round the class among the groups and give help as needed.

Homework:

Ask the students to investigate the kinds of work available and products produced in their locality.

12. Let the students share their work to the class.

4.10 Transportation in Bhutan

Objectives:	Tell the meaning and identify three types of transportation with examples.	
	Identify traffic symbols to be safe on the road.	
Skills:	Identifying, answering and drawing pictures.	
Activities:	Answering questions, listing the types of transportation and drawing traffic symbols on the chart paper.	
Time:	2 periods.	
Resources:	Pictures of different types of transport and traffic symbols, chart paper and crayons	
Organization:	Pair or individual work.	
Vocabularies:	Transport, transportation, safety, zebra crossing, pedestrian, traffic, symbols	

Teacher information:

This is a topic to teach the students about the types of transportation that we have in our country. The teacher can collect pictures of different types of transportation that are in the world to enhance the knowledge of the students on transportation.

Safety rules are very important nowadays with the increasing traffic in our towns. Therefore, to follow the rules students should know some traffic symbols.

The lesson:

- 1. Ask the students to list down the kinds of transport in pairs to begin the lesson.
- 2. Read the text and explain the types of transportations.
- 3. Then ask all the children to read the questions for about two minutes and think of the answers for the activity given in the text.

- 4. Let the students write the answers in their note books. The teacher monitors the students' works and corrects their answers. Students who finish early can draw the transport used in his or her village and transport used to travel to other parts of Bhutan.
- 5. Make sure that students have understood traffic rules and symbols for their own safety.
- 6. Let the students find out the traffic symbols that are displayed on the roadside within their vicinity or in the town or they copy the symbols from the text.

Homework:

Ask the students to look at the road map given in the text and see which places are connected by road.

Objectives:	Define and tell at least four means of communication system used in Bhutan.	
Skills:	Identifying and collecting data.	
Activities:	Identifying types of communication and investigate the use of communication by the students.	
Time:	2periods	
Resources:	Pictures of types of communication.	
Organization:	Group work/ individual work	
Vocabularies:	Communication, post, courier services, internet, fax (Facsimile)	

There are many means of communication in the world. With modernisation our country also has many modes of communication. In fact many of our students are aware of some kind of communication.

The lesson:

- 1. Ask one of the students to volunteer and read the first paragraph. Teacher should explain.
- 2. Proceed with the same procedure for the remaining paragraphs.

- 3. Next, ask the students to list down the types of communication the people used in their village.
- 4. Divide the class into groups and ask them to collect data on means of communication used by their friends. Let the group represent the information by drawing a bar graph.

Home work:

Ask them to carry out the activity given in the text.

4.12 Test Yourself

Teacher Information:

Let students complete the activities given under the topic 'Test Yourself' in the textbook. Help them to do the activities and correct their works when the

student finishes. Then you can also ask questions from this block. You can even conduct a quiz competition or debate for better understanding of this topic.

Aims:

In this block students are introduced to an overview of history. The aims are three fold: The aims have three folds (1) to arouse the students' curiosity about the past, and to show that what we were in the past is relevant to what we are today. (2) To give students a sense of time, a sense of the order in which species have evolved, and events have occurred. (3) And to give a time framework for human history since writing was invented in 3,000 BC. Students are asked to remember six new historical dates. These, plus the four they learned in Class 4, give a broad framework within which they can place other events and dates as they learn them now or in the future.

Objectives:

Students will be able to:

- 1. Investigate how World and Earth began, our ancestors and our history.
- 2. Tell ways scientists study the earth to learn how the world began.
- 3. Order six important times in the evolution of the earth and of life on earth and enter them on a timeline.
- 4. Do an individual project on the evolution of earth and life bore the appearance of humans?
- 5. Tell five ways we are more like primates than like other animals.
- 6. Identify six important stages in the evolution of people and enter them on a timeline.

- 7. Do an individual project on the evolution of early people.
- 8. Identify ten important dates in our history and enter them on a timeline.
- 9. Do an individual project on human history.

Student background:

Students have already learned to make timelines, and they have had an introduction to dating by the Christian calendar and to using AD and BC. They have learned four important framework dates in Class IV Bhutanese history (487 BC (623 BC), 746 AD, 1616 AD and 1907 AD).

Relationship to other subjects:

Students are introduced to hundred thousands, millions and billions in Class V Maths. The figures in this unit can be used constructively in word problems. Negative numbers are also introduced, and the rules for addition and subtraction are the same as for working with AD and BC. Students will learn more about evolution in Science in higher classes, but by Class V they have already been introduced to mammals, amphibians, reptiles, insects etc. and their characteristics. The investigation of inventions can be related to the study of forces and machines in Class V Science.

Timing:

A minimum of 25 to 30 periods of class time is required for this block. At least 5 weeks, or 35 (25) periods is recommended. However time can be used for project work or one or more of the optional lessons.

Week	No.	Lessons	Periods
Twenty Three	5.1	How the Earth began?	2
	5.2	How life began on Earth?	3
Twenty Four	5.3	Where do we come from?	2
	5.4	What is our History?	3
Twenty Five	5.5	Investigating History	2
	5.6	The Teachings of Lord Buddha	3
Twenty Six	5.7	Speaking like the Romans	1
	5.8	Important Inventions before and after 1800 AD	4
Twenty Seven	5.9	Test yourself and revision of the Block.	5

Planning to Block Five

Objectives:	Students will able to arrange in order three important times in the evolution of earth and enter them on a timeline.
Skills:	Reading, drawing, writing, making a timeline.
Activities:	Arranging in order three important times in the evolution of earth and enter them on a timeline.
Time:	2 periods or more if needed.
Organization:	Individual reading and discuss as a class.
Resources:	Chart paper, cloth strips, yarn or ribbon, crayons, sketch pens and additional pictures on volcanoes.
Vocabularies:	Remain, million, Astronomers, paleontologists, archeologists, historians, scientists, volcanoes,

You should be ready with the timeline on "How the world Earth began". The words like Astronomers, paleontologists, archeologists, historians and volcanoes should be introduced. The picture of volcano in the text can be used as resources for drawing. However look for

more pictures of volcanoes from your library and the Encyclopedia especially the coloured ones. The more pictures you use, the more variety you add to the timelines, the more student curiosity is aroused and the more they will learn. It is suggested that the students use BC on their labels to save space.

Generally, when speaking of millions and billions of years, it will be better to say "years ago" rather than BC.

Preparation:

Be ready with the timeline before the class starts. Use cloth strips, yarn or ribbon for the timeline. Chart paper is an alternative but will not last long. The scale should be 1 cm to every 1000,000,000 years.

The lesson:

- Ask students to read the first and second paragraphs. After they have finished reading check what they have understood from these two paragraphs.
- 2. Explain the words remains, millions, astronomers, paleontologists, archeologists,

historians, scientists, volcanoes and ask them to write their meanings in their notebooks.

- 3. Let them to read the third and fourth paragraphs. Here they will find important times of the evolution of the earth.
- 4. Ask students about the three important times they have found in the text.
- 5. Show the timeline that you have made. Timeline should look like the one given below:

4,700,000,000 years ago – there was only the sun.

4,600,000,000 years ago – the Earth was formed.

4,000,000,000 years ago – the Earth began to cool and became rocks. Still there was no life on the Earth.

If the scale is 1 cm to every 100,000,000 years, then the timeline will be:

47cm – there was only the sun

46cm – the Earth was formed

40cm – the Earth began to cool and became rocks.

If the scale is 1 cm to every 1000,000,000 years, then the timeline will be:

- 4.7 cm there was only the sun
- 4.6 cm the Earth was formed
- 4.0 cm The Earth began to cool and became rocks.

- 6. Try to make a timeline depending upon convenience.
- 7. Many things had happened during these times. Explain them according to the time.
- 8. Ask students to copy the timeline in their notebooks.
- 9. Let them colour the different timeline with different colours.
- 10. Show the pictures of the volcanoes and explain about it in detail.
- 11. They can even draw the pictures of the volcanoes in the class.

Homework:

Students read the next lesson in advance.

5.2 How Life Began on Earth		
Objectives:	Students will be able to tell how the life began on the Earth.	
Skills:	Analyse about how the life began on the Earth.	
Activities:	Reading, thinking, discussing	
Time:	3 periods.	
Resources:	Library books and Encyclopedia	
Vocabularies:	evolve, steam, melt, amphibian, mammals, reptiles, dinosaurs, sponges, mosses, fern, cockroaches, and rhinoceros	

Teacher information:

The important new word here is "evolve". Students may also use the word change but evolve will be used in the text throughout this unit.

The concept of evolution is introduced here but in very simple form. There is nothing on "natural selection", or "survival of the fittest", and there is no real attempt to answer how and why of the changes scientists have recorded and observed. Encourage the students' questions. Let them know not all of their questions can be answered now – the challenge is in learning, inquiring, testing, experimenting, and finding out.

Be sure that students know the characteristics of mammals. Most mammals have hair on their bodies, give birth and feed their young ones and take care of their babies after they are born.

The lesson:

 Ask questions to encourage class discussion. Does anyone really know how the life began? Was anyone there? What are some ways scientists try to learn how the life began on the Earth?

- 2. Discuss the word evolve. To evolve is to keep changing. When animals and plants evolve they become less simple. We usually think of evolving as slowly becoming better and better.
- 3. Provide detailed information of evolution of life on Earth such as:
 - a. 3,500,000,000 years ago Began to rain and formed streams, rivers, lakes and oceans.
 - b. 3000,000,000 years ago vey tiny plants grew and animals like sponges, jelly fish, sea scorpion and fish also grew.
 - c. 2000,000,000 years ago first plants on land like mosses and ferns grew.
- 4. Explain the terms amphibian, mammals, reptiles, insects and birds in detail.

Homework:

Students can look at pages 84and read. It will be about how scientists think the life began.

Objectives:	Students will be able tell the evolution of people and their lives.
Skills:	Reading for understanding.
Activities:	Finding and writing five ways we are more like monkeys than like other mammals and answering the questions given in the text.
Time:	2 periods.
Resources:	Any additional pictures or library books on primates and early people.
Vocabularies:	Archaeologists, paleontologists, homo-habilas, homo-erectus, bury, fur, sew, needle, necklace, shell, cave, trap,

Look for more pictures and information on early people from library and encyclopedia to really know about them. Students have the do the drawing activity given in the text.

The lesson:

- 1. Look at the first paragraph together about the monkey-men who had skulls and teeth similar to ours. Most scientists believe that these monkeymen were our ancestors.
- 2. Gradually, take students to the remaining paragraphs which deal with the lives of our ancestors.
- 3. Explain clearly the meanings of the vocabularies given above. Let the students write these meanings in their notebooks.

Homework:

Give drawing activities as homework. Students can make drawing of their own perceptions. Ask questions on what they have drawn. Spend more time on their drawings and correct them.

5.4 What is History?

Objectives:	Students can give ten important dates in the last 5,000 years of our history, make a timeline to scale and enter important events.
Skills:	Ordering.
Activities:	Contributing to a class timeline on the last 3,000 years of human history.
Time:	3 periods.
Resources:	Rulers, crayons and sketch pens and paper.
Vocabularies:	Invent, pyramid, skyscraper, seal, weapons, city, jealous, war, mummies, United Nation

Teacher information:

You will need to prepare the timeline in advance. See preparation below.

This time divide the class into five groups. Each group will be responsible for the label for at least one important data (some will have 2 or 3 dates) and pictures for their period. They should include

pictures for the important dates shown, but they may also choose other events during their own time period that they find in other books.

Although this is a very short period in history of the world, we humans find much interesting detail to study and report! Students may continue adding to this timeline during the unit. Maps and illustrated paragraphs done as project work can also be added.

Students used AD and BC in Class IV but they may still need some extra help with the concept. Both years ago AD or BC are used here. Students should know that they add 2,000 years (the present year date rounded to the nearest thousand) to the BC date to get the number of years ago.

Preparation:

Use one of the kinds of timelines described in the manual.

This time the scale can be one metre for every thousand years. The timeline will be five metres long. There will be 10 centimetres for a century and one centimetre for a decade. (Each year will be one millimeter).

Use two colours. Three metres should be one colour for years in BC. Two metres should be another colour for years in AD. Allow plenty of room for display. Three metres of white newsprint for BC and two metres of coloured chart paper for AD.

If you use cloth or paper strips you will need space above and/or below for display. String is not adequate for this timeline because you will need to mark the centuries.

The lesson:

- 1. Divide students into five groups. Of course you may have more and smaller groups if you prefer.
- 2. Group one should read page 87 (3,000 BC to 2,500 BC inclusive). Their label should read 3,000 BC Sumerians and Egyptians invented writing. They can illustrate events in their period, including early writing.
- 3. Group two should read on page 88, 1,500 BC and Buddha to 450 BC and the Romans. Their labels should read 487 BC Lord Buddha's Nirvana,
- 4. Group three should read page 89, 250 BC Ashok's rule and 1 AD Roman rule.
- 5. Group four should read on page 90, 1 AD to 1500 AD. Their labels should read 746 AD the time Guru Rinpoche came to Bhutan, 1400 AD the time Europeans travel around the world.
- Group five should read on page 91, 1500 AD 1945 AD to present timeline. Their labels should read 1616 AD the Zhabdrung came to Bhutan, 1800 time of inventions begins, 1907 Bhutan becomes a kingdom, and 1945 World War 2 ends and the UN begins.
- 7. Ask students to read and discuss their own sections. They should make labels and drawings for the timeline.
- 8. The teacher should walk among the groups giving suggestions and help as needed.
- 9. Collect the work for correction and marking. It should be returned before the next lesson.

Homework: Complete any unfinished work. Read pages 87 to 91.

Objectives:	Students will be able to give ten important dates in the last 3,000 years of our history, make a timeline to scale and enter important events.
Skills:	Ordering and outlining information.
Activities:	Contributing to a class timeline on the last 3,000 years of human history and listing ten important dates.
Time:	2 periods.
Resources:	Class timeline on the wall, glue, drawings, labels, books and pictures.

In the following periods you will complete the timeline and list the important dates. Return the students' work. Ask for any necessary corrections or re-drawing before you complete the timeline.

Students should place and glue their own work on the timeline as you go together through history.

Do not forget to point out the relationship of this timeline to the previous ones. Our history is so short it wouldn't even show on the first timeline. It would be half a centimetre on a 3 metre timeline of the last 3 million years.

The lesson:

You can ask questions like the following. Let the students answer orally. Let them attach their pictures to the correct places on the timeline.

- 1. Who invented writing? When? What did it look like? Put up the pictures. Discuss them. Show other examples if you have them. Where were these countries? Look on a map of the world.
- 2. Tell something else about the Sumerians. Tell something else about the Egyptians. (Discuss and put up any other pictures. Show pictures of pyramids, mummies, etc. if you have them).
- 3. Tell something about the cities of India and Pakistan. What were they called? Where were they? Look on a map of the world. When were they built? What happened to them? Put up any pictures at the proper date.

- 4. Where is the Yellow River? (Find it on the map). Could the people who lived there in 1500 BC read and write? What could they do? Who were the greedy people who killed them and took their farms? What were some things these people learned to do? (Put up any pictures at the correct dates).
- 5. When did Lord Buddha live? When was his Parinirvarna? (Put up the label).Tell something about Lord Buddha and what he taught us. Note: there is an additional lesson on Lord Buddha in the text
- 6. Tell something about the Greeks. When were the Greeks very important? Find Greece on the world map. (Put up any pictures). Tell something about Ashok. When did he become king? What was his country? What did he do? (Put up the label and any pictures). Find India on the world map.
- When did the Chinese build the Great Wall? Why did they build it? (Put up any pictures at the correct date). Find China on the map. Show pictures of the wall if you have them.
- When were the Romans important? What did they do? Find Rome and Italy on a map. Put up the label. Put any pictures at the correct dates. (Note: there is a lesson on Roman numbers and writing in the text).
- 9. Why does the Christian calendar have 1 AD and 1 BC? Who was born then? (Put up any pictures).

- 10. When did Roman rule end? Put up any pictures.
- When did Guru Rinpoche come to Bhutan? (Put up the label and any pictures at the correct date).
- 12. What were people in the Americas doing by 1,000 BC? Where did they come from? Find the Americas in the world map. Put up any pictures.
- 13. What were some inventions in China around 1,000 AD? (Put up any pictures).
- 14. What were Europeans doing in 1500 AD? Show them how they travelled around the globe and found Asia, Africa and America. People from Asia were also travelling to new places. People traded things.
- 15. When did the Zhabdrung come to Bhutan? (Put up the label and pictures).
- 16. What were some things Americans and Europeans were inventing by the 1800s? (Put up label and pictures). (Note: There are lists of important inventions before and after 1800 given in the text).
- 17. When did Bhutan become a kingdom? Tell something about that. (Put up label and any pictures).
- When did the United Nations begin? (You can tell students they will learn more about the United Nations in Block 6). (Put up label and pictures).

- 19. What were some things Americans and Europeans were inventing by the 1800s? Put up label and pictures.
- 20. When you have completed the timeline with pictures and labels, let students copy in their workbooks.
- 21. Here are the dates and events:
- **3,000 B.C.** People of Egypt and Sumer invent writing.
- **487 B.C.** The time of Lord Buddha. (Entered Nirvana)
- **1 A.D**. The time of the Romans.
- 746 A.D. Guru Rinpoche came to Bhutan.
- **1500 A.D.** People travelled around the world.
- 1616 A.D. Zhabdrung came to Bhutan.
- **1800 A.D.** (until now) Time of machines and many new inventions.
- **1907 A.D.** Ugyen Wangchuck became first king of Bhutan.
- **1945 A.D.** World War II ended and the United Nations begins.

Objectives:	Students will be able to discuss and write about eightfold path.
Skills:	Reading for understanding, participating in group discussion, writing and applying ethical rules.
Activities:	Discussing and writing about eightfold path of Lord Buddha.
Time:	3 periods
Resources:	Story from Jataka tales, light of my life (Dzongkha and English Version)
Organization:	Students should work in groups.

This lesson should be taught just before the holiday for first Sermon of Lord Buddha. This is a simple introduction to his teachings, and their application in our daily lives. The teaching of eightfold path from Buddha's rules for lay people. Right understanding, right thought, right speech, right action, right livelihood, right effort, right mindfulness, right concentration and non-harming of others or us are essential teachings.

- 2. Discuss eightfold path. Ask oral questions to help students recall about the teachings of Lord Buddha.
- 3. Look at the eightfold path on page 93 and 94 together. Let the students sit in their groups and make a dharma wheel having eight spokes and write the eightfold path.
- 4. They can present their group work to the class.

The Lesson:

1. The students should have read this lesson as homework.

5.7 Speaking like the Romans

Objectives:	Students will be able tell the origin of words and Roman numbers.
Skills:	Analyse the English words which are derive from Latin words.
Activity:	Writing Roman numbers from 1 to 50 correctly.
Time:	1 period
Resources:	Roman numbers chart
Organisation:	In groups or individual
Vocabularies:	Perimeter, symmetrical, geometry, circumference, unit, parallel, angle, perpendicular, denominator, numerator, segment, intersect, cylinder, cube, fraction.

Teacher information:

Make sure that students learn some words that are derived from Latin words and Roman numbers.

Explain the importance of Latin words.

The Lesson:

1. Read the text together and tell the importance

of Latin words.

- 2. Explain the Latin words mentioned in the text.
- 3. Let students write the Latin words and their meanings.
- 4. Help students to write the Roman numbers from 1 to 50.

5.8 Important Inventions Before and After 1800 AD

Objectives:	Students will be able tell the timeline of important inventions.	
Skills:	Analyse how inventions had gradually taken place.	
Activity:	Making a timeline of inventions.	
Time:	1 period	
Resources:	Use resources which are available such as coins, paper, eyeglasses, radios, telephones, pulleys as per the text.	
Organisation:	Whole class	
Vocabularies:	Plough, grind, stirrup, lever, pulley, steam, toy, powder, train, battery, engine.	

Teacher information:

Explain the timeline and the inventions one by one.

5.9 Test Yourself

Teacher Information:

Let students complete the activities given under the topic 'Test Yourself' in the textbook. Help them to do the activities and correct their works when the student finishes. Then you can also ask questions from this block. You can even conduct a quiz competition or debate for better understanding of this topic.

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Aims:

In this block students should develop concepts and skills that they need for Geography in higher classes.

Students are asked to investigate another country of their choice. They have to learn about another country by reading books, maps, stamps, coins and through interviews. This is an individual project and they need to produce a book about the life in their chosen country. They have to use globes and world maps to learn about longitudes and latitudes to calculate time.

The students will also investigate the work of the United Nations. They will discuss some of the problems in the world and how UN helps to solve the problems.

Objectives:

A child will be able to:

- 1. Choose a country, investigate it and make a book about it.
- 2. Identify geographical features of his/her chosen country.
- 3. Make flags for his/her chosen country.
- 4. Collect or draw stamps and coins from his/her chosen country.
- 5. Find the time in his/her chosen countries.
- 6. Discuss about world problems and find solutions to the world problems.
- 7. Investigate the work of the UN organizations.
- 8. Participate in a mock session of the UN General

Assembly.

Student background:

In Class III students had a block on transportation which gave them some

Introduction to other countries, international transport and the wider world.

However, they have very little experience about the use of globes, world maps or investigation of other countries.

Block one on Asia, on continents and oceans, the globe and the shape of the Earth will give some information. Relate this block to the sun, seasons, time, calendars, transportations and communications that they have learnt before. Let students investigate crops, forests, markets, workers, religions, type of governments, languages, flags and national dress of their chosen countries.

Relations to other subjects:

There is a lesson on time in class V Maths. Therefore students should learn to tell time with the 24 hour clock and should have skills and instruments to make their time zone clock. Students have already learnt about diseases and the problems of hunger and malnutrition in Science.

Timing:

It will be best to allow at least six weeks to finish this block. Twenty seven periods are allotted in the manual. You may need additional periods for investigation of UN work and for the project.

Planning:

It is suggested to have six weeks for this block. Students may need more time to complete their projects. Adjust the timing according to your need.

Planning to Block Six:

Week	No.	Lessons	Periods
Twenty Eight	6.1	Choosing a country.	5
Twenty Nine	6.2	How do you travel there?	2
	6.3	World Geography	3
Thirty	6.4	Different countries and their flags	3
	6.5	Stamps and coins	2
Thirty One	6.6	How do we calculate time?	3
	6.7	Some of the problems in the world.	2
Thirty Two	6.8	How the United Nations (UN) helps us.	3
	6.9	How the United Nations works.	2
Thirty Three	6.10	Test Yourself	2

6.1 Choosing a country

Objectives:	A child will be able to choose a country, investigate it and make a book about it.
Skills:	Reading, recalling, writing and drawing.
Activities:	Learning names of at least 5 different countries.
	Choose one of the countries and investigate about it.
Time:	5 periods.
Organization:	The students should work individually.
Resources:	Globes, world maps, Atlases, library books about different countries. Travel literature, Encyclopedia, sketch pens, crayons, water colors, glue, etc.
Vocabularies:	Population, travel, desert, geography, peaceful.

Teacher Information:

The emphasis in this block is on individual research on a country chosen by the student. Let them choose the countries which they want to investigate. You can ask them such questions "do they know someone who has been there who can tell them about it?

Where else can they find information?"

Preparation:

Explore school library and school community looking

for material that may help your students.

Look for people whom they have to interview. Many teachers come from India or from Nepal. Some schools have VSOs or other foreign volunteers who can tell about their countries. Consultants from Japan, Switzerland, Sri Lanka, Germany, Nigeria and a host of other countries are involved in development work.

The lesson:

- 1. Read the lesson together. Find some countries from the world map.
- 2. Ask students to choose the country.
- 3. Ask students to find a person who has been to other countries.
- 4. Let students investigate crops, forests, markets, workers, religions, type of governments, languages, flags and national dress of their chosen countries.

5. Prepare questions to be asked.

It doesn't matter if several students choose the same country but try to get a variety. Encourage students to choose those countries which they know the the best. It is important, though, that each child chooses his/her own country – a country she or he is curious about. If you have non- nationals in your class, it could be his or her own country. Don't just assign countries. The process of choosing is also important.

Homework:

Find someone to interview about the chosen country.

6.2 How would you travel there?

Objectives:	A child will be able to choose one country and find out means of transportation to reach to the chosen country
Skills:	Map making. Finding transport routes.
Activities:	Making a travel map and writing about travel to the chosen country.
Time:	2 periods
Organization:	Students should work in groups.
Resources:	Globes, World maps, Atlases. Encyclopedia, Foolscap paper sketch pens, crayons, water colors, glue, etc.

Teacher Information:

Students need to make a world map and then show how they would travel to their chosen country. Would they go by bus or train?

The lesson:

- Go over the material given in textbook (How would you travel there?). Ask students how they would travel to their chosen country. Would they go by bus or train?
- 2. Ask students to draw an outline World map, plot their country on it and plot Bhutan on it. Draw a line for the way they would travel from Bhutan to their chosen country.
- 3. Try to find out more about the way they would travel. Write about it in the notebook.

Objectives:	A child will be able to identify nine geographical features not found or not common in Bhutan.
Skills:	Making symbols.
Activities:	Make symbols for nine geographical features not common in Bhutan. Write a sentence about each in their notebook.
Time:	3 periods.
Organization:	The lesson should be taught to the whole class.
Resources:	Physical maps, wall maps, globes and pictures.
Vocabularies:	Desert, Polar Regions, plains, island, lake, shore, peninsula, bay

This is a dual purpose lesson. Students should learn these features in preparation for geography in higher classes. They also should include something on these features in their country book. Students designed symbols for weather and learned them for land forms in Class IV, so they should not have difficulty with this.

Preparation:

Have a physical world map on the wall and globes or atlases for each group. Find colored pictures, if you can, for each of the features. Find examples and have them marked in advance so that you can refer to them quickly. If your school has a set of books like The World with enough copies for students to share, that will be ideal. You can also use The Way We Live, Book 5 for other pictures and examples.

The Lesson:

Go through the geographic features one-by-one. For example: deserts.

1. Ask students to tell you something about deserts. Show some pictures of deserts. Can people make deserts?

- Look for the symbol for deserts in the map key. Find some deserts on the maps. Ask them to look for deserts in the map of their chosen country. Draw a symbol for a desert in their rough books. Write a sentence about deserts. Walk around the room giving help as they do this.
- 3. Continue through the features. This will probably take at least two periods. When you are finished with the features let the students enter the symbols and the sentences in their workbooks. Here are some possible symbols. Some students may think of better ones.

Students who finish early may investigate or prepare something about the geographic features in their chosen country.

Homework: Read Different Countries and Their Flags. Collect small sticks for their flag poles for next lesson.

Objectives:	A child will be able to make flags for his/her chosen country.
Skills:	Drawing and coloring
Activities:	Making a flag for the chosen country correctly as given in the text
Time:	2 periods
Resources:	Pictures of country flags from encyclopedia and atlas, sketch pens, small sticks, paper, scissors, glue.

Students should draw a picture of a flag of their chosen country. The flags are to be displayed in the class. If students have chosen the same country, ask some of them to make different flags for display. Get as many different flags as you can. Be sure someone makes flags for Bhutan and for the United Nations.

The Lesson:

 Students should have read the lesson in advance. You can ask a few questions for each paragraph. You can also ask them to recall other things they remember about the countries mentioned. Find them on the map.

- 2. Let students make flags of their countries. They will need small sticks, paper cut to a standard size, sketch pens or crayons, scissors and glue. They will also need to find pictures of the flags.
- 3. Display the flags. Stick them in a strip of clay, or in a strip of polythene packing material. If you can't display them on their "poles" staple them to a string hung across the classroom.

Homework:

Read the text on Stamps and Coins. Bring any stamps or coins from other countries for the next lesson.

6.5	Stamps	and	coins
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Objectives:	A child will be able to collect at least 5 different stamps and coins or draw 5 stamps and coins from their chosen countries.
Activities:	Collecting coins and stamps.
Skills:	Collecting, Drawing and coloring
Time:	2 periods
Organization:	Students should work individually.
Resources:	Pictures of coins and stamps from encyclopedia and other sources.
Vocabularies:	Stamp, coin, hexagon, scallop

Teacher information:

Students should be encouraged to collect coins and/ or stamps for their chosen country and either fasten them into their books or draw them accurately. (Most coins can be "rubbed". Place the coin under a piece of paper, and then rub with a crayon on top of the paper).

Encourage students to start a general collection of coins and stamps from many countries. Students can learn a great deal of geography through their stamp collections. Encourage them to trade with each other, also. Start a class collection as suggested in the text).

Stamps and coins will be readily available for some countries (India and Nepal), but difficult to find for many others. Thus this has to be an optional project for the chosen country book.

The lesson:

1. Let students show and talk about any coins or stamps they have brought.

- If stamp collections (even if mainly of Bhutanese 2. and Indian stamps) are feasible in your area, discuss the instructions for keeping a collection given in the text. Students may have other ideas to contribute.
- 3. Use any additional time in the lesson for project work. Some may draw stamps or coins for their country books. Some may work on their flags. Others can work in maps, or use resource books.

Homework:

Read the next topic (How Do We Calculate Time?) Continue project work.

6.6 How do we calculate time?	
Objectives:	A child will be able to use longitudes to calculate time in his / her country and the chosen country.
Skills:	Finding and calculating time using longitudes.
Activities:	Finding time zones and making a clock for Bhutan and their chosen countries.
Time:	3 periods
Organization:	Students should work in groups.
Resources:	Globes, a map of time zones from the encyclopedia.
Vocabularies:	Longitude, latitude, zone

Teacher information:

This is an introduction to latitude and longitude lines.

Detailed work with longitude and latitude is not given in Class V. Globe and world map work is itself new to the students and they need a basic introduction and familiarity with global features before learning to plot coordinates.

Do help students find the longitude and latitude for Bhutan on a map. They should also find 0 degree longitude and latitude on the globe. The term hemisphere is not required in Class V. If you choose to introduce it, make clear that it is just another Latin word for simple English. Hemi = half. Northern hemisphere means the same thing as the north half of the world).

The lesson:

Start with guestions. Do they remember who first divided the globe (and also circles and spheres) into 360 degrees and the day into 24 hours? (Answer: the Sumerians). We have never changed it: partly because it comes so close to matching the number of days it takes the earth to go around the sun (do they remember how many?) and partly because it is an easy to use number with many factors.

Let each group look at their globes. Find countries where it is night while it is day in Bhutan. Find the longitude lines going up and down (north to south). Find the latitude lines going across or east to west. The equator is a latitude line. (Ask them to find the degree mark for the equator).

These are more Latin words. **'Long'** means long ways or up and down. **'Lati'** means sideways. Practice the words.

Count the degrees of longitude on the globe (360 degrees in total). Count the degrees of latitude. Find 0 degree longitude and 0 degree latitude.

Find the latitude and longitude for Bhutan. Find other countries with the same longitude. Find other countries with the same latitude. Does any place else have exactly the same degrees of longitude and latitude as Bhutan?

The answer is yes, but they are in different halves of the world. Find three other places with the same longitude and latitude degrees as Bhutan.

Show how to mark them to show the difference.

If there are 24 hours in a day, how many degrees does the earth turn in an hour? Let students divide 360 by 24. If your globe is divided into 15 degree longitude sections (many modern globes are) it will be easy to mark the time. If not, the students will have to count 15 degree for every hour, or one 10degree section plus half of the next section. Count the time from Bhutan to England. Ask what time it is in each 15 degree section, on the way to England. Point out Greenwich Mean Time.(The students do not need to learn this term yet, but introduce it and tell that this is where the standard for time is set.

Count east to Hong Kong, say the times. Keep going east. Show the international date tile.

You can point out that countries sometimes redraw the time zone lines to fit their own needs. Sometimes they make the days start an hour later in winter, and an hour earlier in summer to make sure they get plenty of daylight. So a country's times may be as much as an hour ahead or behind their real time zone. But if you count the zones you will come close. We can check the actual times in the encyclopedia.

Do not expect students to remember everything in this lesson, or to test them on it. It is merely an introduction! But they will need to remember enough to find the time in their chosen country for the next lesson.

Objective:	A child will be able to make a clock for his/her chosen country.
Activity:	making a clock.
Skills:	map work, using longitude and latitude,
Time:	1 period
Organization:	Students should work individually.
Resources:	protector, ruler
Vocabularies:	Protractor, divider, segment, meridiem

6.6 Making a clock for your chosen country

The lesson:

Let students use their compasses and protractors to make a copy of this 24 hour clock in their workbooks. If they wish, they can make Bhutan the standard, with 24 hours at the top of the circle.

Class V students should know how to make this clock, but if you have problems, ask the Math teacher for help. Once the Bhutan clock is drawn, let them establish the time in their chosen country by counting out the longitude lines. They may check in the encyclopedia to make sure they are accurate. Once they find one time (E.g. if it is 6am in the morning in Bhutan and it is 13 in the chosen country) they can easily fill in the rest of the clock. Students should also include a drawing of the clock in their country book. They can write a paragraph something like this (When I get up at 6 am in the morning the children in England are sleeping because it is 24 hours or midnight. When I have lunch at 12 hours (noon) they are just waking up at 6 in the morning ...etc.) **Homework:** Students should continue to work on their projects until the end of the term. If there is opportunity allow them more class work periods.

6.7 Some of the problems in the world

Objectives:	A child will be able to discuss some world problems and tell about what he/ she can do to solve them.
Skills:	Seeking solutions to problems. Group discussion
Activities:	Discussing world problems such as disease, hunger, environmental damage, war and crime and answering "what can we do?"
Time:	2 periods
Organization:	Students should work in groups.
Resources:	Any relevant posters or pictures on these problems from UNICEF, UNESCO, UNEP, etc.
Vocabularies:	Measles, pneumonia, diarrhea, malaria, typhoid, tuberculosis

Teacher information:

This lesson is an introduction to the section on the United Nations and our common efforts to solve global problems. Students should sit in groups and discuss each of these four problems in turn.

Start groups at different places in the cycle of four problems (diseases, poverty, destruction to the earth and some people harm others). Stop when time is up (allow 15 or 20 minutes) or when all have finished, whichever comes first.

The Lesson:

- Students sit in groups. Ask questions such as "what are the problems given? Do we have these problems in Bhutan? Do their chosen countries have any of these problems?
- 2. Start by asking what we can do to find answers to the problems.

- 3. Ask each group to discuss the problems one by one, and write short answers in their rough books. Each group can start with a different problem. When they finish one, they should go on to the next. Give a limit.
- 4. She teacher should walk from group to group, listen, and make suggestions or ask questions as needed.
- 5. When the time limit is up or all have finished, share answers as a class. Students may add to the answers in their rough books.
- 6. Let each student enter their answers to what they can do about each problem in their notebooks. Those who have difficulty with English or organization of thoughts teacher should let more able students to help them.

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Objectives:	A child will be able to investigate work of the United Nations.
Activities:	Name 6 important UN organizations in their notebooks and write a sentence about the work of each UN body.
Skills:	Investigation.
Time:	2 periods
Organization:	This is an individual project work.
	Seating in groups is optional.
Resources:	Any relevant posters or pictures from UNICEF, UNESCO and UNEP
Vocabularies:	Terrible, organization, discrimination, violence, abuse, exploitation.

- 1. This is the first real introduction to the United Nations, although it has been mentioned in Block Five and in the lesson on flags.
- Introduce it through the organizations that work in your village. UNICEF has materials in every school. WFP provides food for most schools. WHO contributes to every BHU. Be sure to investigate the work of these organizations if they are active in your village.
- 3. FAO may also have input into agricultural projects. There may be a UNV in your area. Learn about any other UN organization that has input in your village or general area.
- 4. UNFPA and UNEP both have important programs related to education. These will not be as important to remember if there is no real

presence in your area, but at least introduce your students to them.

5. Try to do one interview related to this unit. At the very least you can ask the head teacher to come in for an interview on the contributions of these organizations (especially WFP, UNICEF and WHO) to the school itself. If possible, ask a UNV or consultant to come in and answer questions on his/her work, organization and the UN itself. If you can arrange such an interview, have the students prepare some questions in advance, as suggested in the pattern for other interview.

The lesson:

Discuss the roles and responsibilities of the UN and let the students answer the questions and write names and work of the organizations.

6.9 How the United Nations works.

Vocabularies:	Settle, Agree, General Assembly, Security Council, Secretary General, World Court
Resources:	Any relevant posters or pictures on UNICEF, UNESCO, UNEP, etc.
Time:	1 period.
Skills:	Analyzing the functions of the United Nations.
Activities:	Writing sentences about each of the important bodies in the UN.
Objectives:	A child will be able to write the functions of the organizations and people working in the United Nations.

Teacher information:

The names of the four important bodies of the UN (General Assembly, Security Council, Secretary General and World Court) can be treated as recognition words in Class V. Teach students the functions of each body.

The lesson:

1. Let the students read the lesson in pairs and

help each other write a sentence for each paragraph.

2. Share the work in class. Let students correct their work.

Copy the corrected sentences into their workbooks. Students may illustrate the lesson if they wish.

6.10 Test Yourself

- 1. Let the students use the exercise from Test Yourself in an open book test or to test their memories. You can use it as a diagnostic test. You can use past Test Yourself exercises during revision, as well as questions from the first two term exams. You can also use questions from the question bank that you do not plan to use in the exam.
- 2. Give students practice on all forms of questions you will ask in the exam, so they will not be confused by instructions. Never use a new

format for the first time in an exam.

- Also give quizzes and practice questions on all objectives you will test in the exam. Help students find what they need to study and learn.
- 4. Do not use the same questions in the exam that you use for revision. The only possible exceptions would be diagrams and maps, which you expect students to practice before hand so that they can remember how to fill them in correctly