SOCIAL SCIENCE

The Earth: Our Habitat

TEXTBOOK IN GEOGRAPHY FOR CLASS VI





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FOREWORD

The National Curriculum Framework (NCF), 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy on Education (1986).

The success of this efforts depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that, given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

The National Council of Educational Research and Training (NCERT) appreciates the hard work done by the textbook development committee responsible for this book. We wish to thank the Chairperson of the advisory group in Social Sciences, Professor Hari Vasudevan and the Chief Advisor for this book, Vibha Parthasarathi for guiding the work of this committee. Several teachers contributed to the development of this textbook; we are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have generously permitted us to draw upon their resources, material and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of Professor Mrinal Miri and Professor G.P. Deshpande, for their valuable time and contribution. As an organisation committed to systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

New Delhi 20 December 2005 Director National Council of Educational Research and Training

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC] and to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

^{1.} Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)

^{2.} Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 2, for "Unity of the Nation" (w.e.f. 3.1.1977)

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The following are applicable to all the maps of India used in this book

- © Government of India, Copyright 2006
- 1. The responsibility for the correctness of internal details rests with the publisher.
- 2. The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
- 3. The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.
- 4. The interstate boundaries amongst Arunachal Pradesh, Assam and Meghalaya shown on this map are as interpreted from the "North-Eastern Areas (Reorganisation) Act.1971," but have yet to be verified.
- 5. The external boundaries and coastlines of India agree with the Record/Master Copy certified by Survey of India.
- 6. The state boundaries between Uttaranchal & Uttar Pradesh, Bihar & Jharkhand and Chhattisgarh & Madhya Pradesh have not been verified by the Governments concerned.
- 7. The spellings of names in this map, have been taken from various sources.

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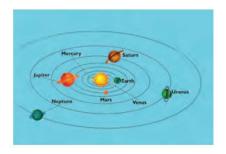
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5. Major Domains of the Earth
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Appendix II

Our National Anthem

Jana-gana-mana adhinayaka, jaya he
Bharata-bhagya-vidhata.
Punjab-Sindh-Gujarat-Maratha
Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
Uchchhala-jaladhi-taranga.
Tava shubha name jage,
Tava shubha asisa mage,
Gahe tava jaya gatha.
Jana-gana-mangala-dayaka jaya he
Bharata-bhagya-vidhata.
Jaya he, jaya he,
Jaya jaya jaya, jaya he!

Our National Anthem, composed originally in Bangla by Rabindranath Tagore, was adopted in its Hindi version by the Constituent Assembly as the national anthem of India on 24 January 1950.







1

THE EARTH IN THE SOLAR SYSTEM

How wonderful it is to watch the sky after sunset! One would first notice one or two bright dots shining in the sky. Soon you would see the number increasing. You cannot count them any more. The whole sky is filled with tiny shining objects – some are bright, others dim. It seems as if the sky is studded with diamonds. They all appear to be twinkling. But if you look at them carefully you will notice that some of them do not twinkle as others do. They simply glow without any flicker just as the moon shines.

Along with these bright objects, you may also see the moon on most of the days. It may, however, appear at different times, in different shapes and at different positions. You can see the full moon only once in about a month's time. It is **Full moon** night or *Poornima*. A fortnight later, you cannot see it at all. It is a **New moon** night or *Amavasya*. On this day, you can watch the night sky best, provided it is a clear night.

Do you wonder why can't we see the moon and all those bright tiny objects during day time? It is because the very bright light of the sun does not allow us to see all these bright objects of the night sky.

The sun, the moon and all those objects shining in the night sky are called **celestial bodies**.

Some celestial bodies are very big and hot. They are made up of gases. They have their own heat and light, which they emit in large amounts. These celestial bodies are called **stars**. The sun is a star.

Countless twinkling stars in the night sky are similar to the sun. But we do not feel their heat or light, and they look so tiny because they are very very far from us.

Let's Do



You'll need: 1 torch, 1 sheet of plain paper, pencil and a needle.

Step:

- 1. Place the torch in the centre of the paper with its glass front touching the paper.
- 2. Now draw a circle around the torch.
- 3. Perforate the paper with the needle within the circled area.
- 4. Now place the perforated circle part of the paper on the glass front and wrap the paper around the torch with a rubber band.
- 5. Take care that the switch of the torch is not covered.
- 6. In a dark room, stand at some distance facing a plain wall. Switch off all other lights. Now flash the torch light on the wall. You will see numerous dots of light on the wall, like stars shine in the night.
- 7. Switch on all the lights in the room. All dots of light will be almost invisible.
- 8. You may now compare the situation with what happens to the bright objects of the night sky after the sun rises in the morning.



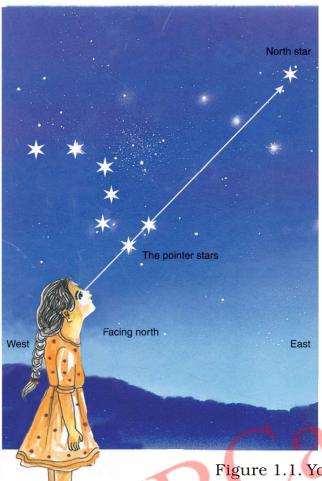


Figure 1.1 : Saptarishi and the North Star

Jupi

Interesting Fact

Jupiter, Saturn and Uranus have rings around them. These

are belts of small debris. These rings may be seen from the earth with the help of powerful telescopes. You must have noticed that all objects look smaller when seen from a distance. How small an aeroplane looks when it is flying at a great height!

While watching the night sky, you may notice various patterns formed by different groups of stars. These are called *constellations*. Ursa Major or Big Bear is one such constellation. One of the most easily recognisable constellation is the *Saptarishi* (*Saptaseven*, *rishi*-sages). It is a group of seven stars (Figure 1.1) that forms a part of Ursa Major Constellation. Ask someone elder in your family or neighbourhood to show you more stars, planets and constellations in the sky.

In ancient times, people used to determine directions during the night with the help of stars. The North star indicates the north direction. It is also called the **Pole Star**. It always remains in the same position in the sky. We can locate the position of the Pole Star with the help of the Saptarishi. Look at

Figure 1.1. You will notice that, if an imaginary line is drawn joining the pointer stars and extended further, it will point to the Pole Star.

Some celestial bodies do not have their own heat and light. They are lit by the light of the stars. Such bodies are called **planets**. The word 'planet' comes from the Greek word "Planetai" which means 'wanderers'. The earth on which we live is a planet. It gets all its heat and light from the sun, which is our nearest star. If we look at the earth from a great distance, say the moon, it will appear to be shining just as the moon.

The moon that we see in the sky is a satellite. It is a companion of our earth and moves round it. Like our earth, there are seven other planets that get heat and light from the sun. Some of them have their moons too.

THE SOLAR SYSTEM

The sun, eight planets, satellites and some other celestial bodies known as asteroids and meteoroids

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