

Target Publications® Pvt. Ltd.

# Written as per the Latest Syllabus prescribed by the Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune.

### PERFECT

# Geography

Std. VI (English Medium)

### **Key Features:**

- Helps to Build Powerful Concepts
- Concise Theory to revise important concepts in the chapters
- Variety of Questions to ensure complete chapter coverage
- Intext Questions to dig deeper into the concepts
- Activities along with hints and guidelines to widen the knowledge spectrum
- Maps and Illustrations for better conceptual understanding
- Chapter wise Assessment with Answer Key for knowledge testing
- Glossary for meaning of difficult terms

Printed at: **Print to Print**, Mumbai

© Target Publications Pvt. Ltd.

No part of this book may be reproduced or transmitted in any form or by any means, C.D. ROM/Audio Video Cassettes or electronic, mechanical including photocopying; recording or by any information storage and retrieval system without permission in writing from the Publisher.

Balbharati Registration No.: 2018MH0022 P.O. No. 5260

### **PREFACE**

Target's Perfect Geography: Std. VI has been prepared as per the new 'Continuous Comprehensive Evaluation' (CCE) pattern which is more child-centric and focuses on active learning. It makes the process of education more enjoyable and interesting. This book would not only help them to prepare for examination but also equip them to be an informed citizen of the country who very well know our country's physical structure and its demographics.

Every chapter in the book begins with **Point wise Theory (Let's study)** which gives the readers a better understanding of the chapter. It further covers the **Summative Assessment Section** which includes Questions and Answers based upon the chapters. The **Important words** in long answers are underlined so that students can remember these words and write answers in the exams. The questions which have more than one possible answer are marked as **Open Ended Question**.

The section that follows consists of **Formative Assessment**. It is divided into Apply Your Knowledge (intext questions), Oral Test and Activities/Project sections. The Oral Test section consists of questions to evaluate students' understanding of different concepts and information given in the chapter. In Apply Your Knowledge and Activities/Project section, we've provided answers to Questions wherever deemed necessary. However, students are expected to answer a few Activity based questions on their own so that they can dig deeper into the given topics. We have also marked questions which are suitable for **Oral Work**.

At the end of every chapter, we've included **Chapter Assessment** with Answer Key. It stands a testimony to the fact that the child has understood the chapter thoroughly. To provide general and understandable explanation of the difficult terms, **Glossary** is included at the end of the book. **Good to Know** is added to trigger the students' thought process.

We hope this book turns out to be more than a guiding angel for the students of Std. VI.

PublisherEdition: Third

The journey to create a complete book is strewn with triumphs, failures and near misses. If you think we've nearly missed something or want to applaud us for our triumphs, we'd love to hear from you.

Please write to us at: mail@targetpublications.org

#### Disclaimer

This reference book is transformative work based on textbook of 'Geography; Fourth Reprint: 2020' published by the Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune. We the publishers are making this reference book which constitutes as fair use of textual contents which are transformed by adding and elaborating, with a view to simplify the same to enable the students to understand, memorize and reproduce the same in examinations.

This work is purely inspired upon the course work as prescribed by the Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune. Every care has been taken in the publication of this reference book by the Authors while creating the contents. The Authors and the Publishers shall not be responsible for any loss or damages caused to any person on account of errors or omissions which might have crept in or disagreement of any third party on the point of view expressed in the reference book

 $\ensuremath{\mathbb{C}}$  reserved with the Publisher for all the contents created by our Authors.

No copyright is claimed in the textual contents which are presented as part of fair dealing with a view to provide best supplementary study material for the benefit of students.

\_\_\_\_\_\_

#### Glossary

A glossary provides the meaning of the difficult terms from the chapter.

#### **Open Ended Questions**

Some questions have more than one possible answer. Hence, questions marked as 'Open Ended Question' give students the freedom to answer these questions in a different manner on their own.

#### **Chapter Assessment**

**Chapter Assessment** covers questions from chapter for self-evaluation purpose.

This is our attempt to provide the students with revision and help them assess their knowledge of chapter. We have also provided Answer Key to aid evaluation.

#### **Oral Test**

Oral Test section includes questions that would stimulate the students to think and arrive at an answer based on their understanding of the concepts covered in the chapter.

#### Oral Work

The questions marked as 'Oral Work' can be orally answered by the students based on their practical knowledge and observation.

#### Good to Know

**KEY** 

**FEATURES** 

Good to Know is added to trigger the students' thought process.

#### Important words

The Important words in long answers are underlined so that students can remember these words and write in the exams.

# **CONTENTS**

| No. | Topic Name                                | Page<br>No. |
|-----|---|-------------|
| 1.  | The Earth and the Graticule               | 1           |
| 2.  | Let us Use the Graticule                  | 13          |
| 3.  | Comparing a Globe and a Map; Field Visits | 22          |
| 4.  | Weather and Climate                       | 27          |
| 5.  | Temperature                               | 34          |
| 6.  | Importance of Oceans                      | 47          |
| 7.  | Rocks and Rock Types                      | 58          |
| 8.  | Natural Resources                         | 68          |
| 9.  | Energy Resources                          | 78          |
| 10. | Human Occupations                         | 89          |
|     | Glossary                                  | 98          |

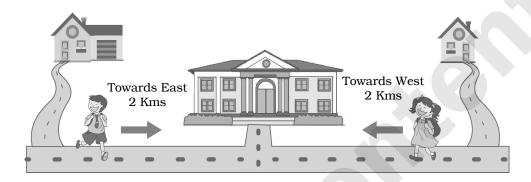
Note: Textual Questions are represented by \* mark.

 $\ensuremath{\mathbb{G}}$  symbol after a word in theory indicates that the meaning of the word is provided in the glossary section.

#### Let's Study

#### Earth and the Globe

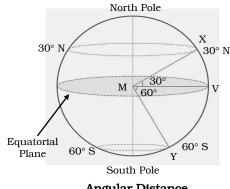
1. Use of directions: Directions are used by everyone to determine the location of different places on earth. However, direction of the same place will be different for each person based on his/her location. This can be explained with the help of the following illustration:



- **2. Limitation of using directions:** On the basis of above illustration, we can infer that, directions and sub-directions alone are not enough to accurately determine the location of any place on earth. This difficulty can be solved if lines parallel to each other are drawn around the earth.
- 3. Reasons for the development of globe: The length of earth's diameter along the north-south direction is 12714 kilometres while that along the east-west direction is 12756 kilometres. Due to its large size as well as geographical features, it is practically impossible to actually draw horizontal and vertical lines around the earth. To overcome this difficulty, geographers developed a miniature model of the earth in the form of a globe.
- **4. Use of globe:** Since we can actually draw horizontal and vertical lines on a globe, it is used to determine locations on the earth.

#### **Angular Distance**

- 1. Use of centre to determine location: The location of any place on the earth is determined with reference to the centre of the earth.
- 2. Method to determine location: We consider a straight line joining the point on the surface whose location is to be determined and the earth's centre. At the centre, this line makes an angle with the plane of the equator. The measure of this angle is used to determine the location.
- **3. Angular distance:** The measured angle is said to be the angular distance of the point from the equator.

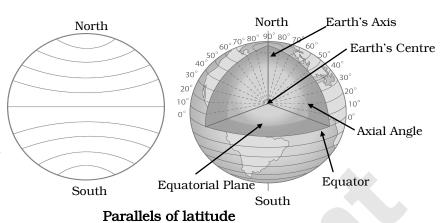


Angular Distance

# R

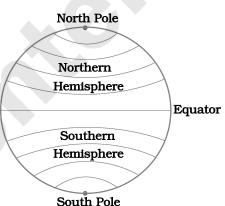
#### Parallels of Latitude

- 1. Parallels of latitude: The parallels of latitude are east-west circles created at some angular distance from the centre of the earth.
- 2. Expressing values: The values of parallels of latitudes are angular measures expressed in degrees.



#### Equator, Northern Hemisphere, Southern Hemisphere, North Pole and South Pole

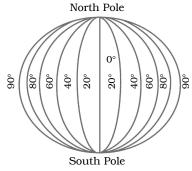
- 1. **Measurement of parallels:** The degrees of parallels of latitudes are measured from the equator. The equator, largest parallel, is considered as 0° parallel. The parallels become smaller and smaller towards the north and the south of the equator.
- 2. Northern and Southern hemisphere: The imaginary line called equator bisects the earth into two equal parts. The one to the north is called the northern hemisphere while the one to the south is the southern hemisphere.
- 3. North and South poles: The parallels of latitude appear as points on the extreme north and south end of the earth's axis. These are called the North Pole and the South Pole, respectively.



- **4. Labelling parallels:** The value of each parallel is mentioned by writing the suffix 'N' or 'S' after the measure of its angle, to denote whether they lie to the North or the South of the equator.
- 5. Places at same angular distance: Each parallel of latitude joins all the places which are at the same angular distance from the equator. e.g., Alexandria in Egypt, Shanghai in China and Shimla and Ludhiana in India are all located on 31° N parallel.
- **6. Total parallels:** We can draw 181 parallels of latitude on the earth at an interval of 1°.

#### Meridians of Longitude

- 1. **Meridians of longitude:** The north-south semicircles created at some angular distance from the centre of the earth are called meridians of longitude. All meridians are equal in size.
- **2. Expressing values:** The angular distances of all meridians of longitude are expressed in degrees.



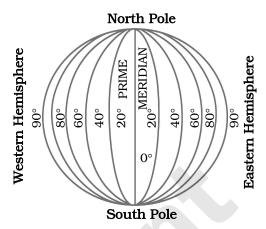
Meridians of Longitude

#### Prime Meridian, Eastern Hemisphere and Western Hemisphere

1. **Prime Meridian and measurement of meridians:** Prime Meridian is the 0° meridian. The angular distance of other meridians is measured from the prime meridian.



- **2. Eastern and western hemisphere:** The 0° and 180° meridians lie on the opposite sides of the globe, forming a circle. This circle divides the earth into eastern hemisphere and western hemisphere.
- 3. Labelling meridians: The value of each meridian is mentioned by writing the suffix 'E' or 'W' after the measure of its angle, to denote whether they lie to the East or the West of the Prime Meridian.
- 4. Places at same angular distance: Each meridian of longitude joins all the places which are at same angular distance from the Prime Meridian. e.g., Kanpur and Chennai in India and Colombo in Sri Lanka are located on the 80° E meridian.



**5. Total meridians:** We can draw 360 meridians of longitude on the earth at an interval of 1°.

#### Distance Between Parallels and Meridians

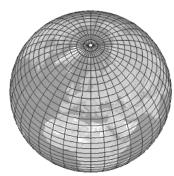
- 1. **Finding exact location:** The exact location of any place on the earth can be found with help of the parallels of latitude and the meridians of longitude.
- 2. Distance between adjacent parallels of latitude and meridians of longitude:
  - (i) The distance between two adjacent parallels is same everywhere and it is 111 km.
  - (ii) The distance between two adjacent meridians is not the same everywhere. It is maximum on the equator (111 km) and goes on reducing towards the poles. It is zero at the north and the south poles.
- **3. Distance between adjacent meridians:** The distance between two adjacent meridians of longitude on earth's surface at some important parallels of latitude are given below:

| Parallel of latitude | Degree of the latitude | Distance between two adjacent meridians |  |  |
|----------------------|------------------------|---|--|--|
| Equator              | 0°                     | 111 km                                  |  |  |
| Tropic of Cancer     | 23°30′ N               | 102 km                                  |  |  |
| Tropic of Capricorn  | 23°30′ S               | 102 km                                  |  |  |
| Arctic Circle        | 66°30′ N               | 44 km                                   |  |  |
| Antarctic Circle     | 66°30′ S               | 44 km                                   |  |  |
| North Pole           | 90° N                  | 0 km                                    |  |  |
| South Pole           | 90° S                  | 0 km                                    |  |  |

**4. Division into minutes and seconds:** Each degree of latitude and longitude is further divided into minutes and seconds in order to exactly locate the places lying between the two adjacent lines.

#### The Graticule

- 1. **Graticule and its use:** The net formed by the parallels of latitude and the meridians of the longitude is known as the graticule. It helps in determining the location of a place on the earth.
- 2. Modern day applications of graticule: Some modern day applications using graticule include the Geographical Information System (GIS), Global Positioning System (GPS), Google Maps, Wiki-mapia and Bhuvan.



The Graticule

#### Std. VI: Perfect Geography



**3. Indian Regional Positioning System:** India has achieved self-reliance in Global Positioning Technology. It will be easy to locate any place in the Indian subcontinent with Indian Regional Navigation Satellite System (IRNSS). India is launching its own series of 7 satellites.

#### SUMMATIVE ASSESSMENT

#### Choose the correct alternative

\*1. Place a tick mark (<) against the correct option.

[*Note:* Here, we have directly given correct answers. Students are expected to tick the box in front of the correct answer in textbook.]

- (i) What term is used for the imaginary east-west horizontal lines on the earth?
  - (A) Meridians
- (B) International Date Line
- (C) Parallels

- (ii) What is the shape of the meridians?
  - (A) Circular
- (B) Semi-circular
- (C) Points
- (iii) What do the parallels of latitude and meridians of longitude together form on the globe?
  - (A) Angular distance
- (B) Hemisphere
- (C) Graticule
- (iv) How many parallels are there in the northern hemisphere?
  - (A) 90

(B) 89

- (C) 91
- (v) Which circle forms the eastern and western hemisphere?
  - (A) 0° parallel and 180° meridian
  - (B) 0° Prime Meridian and 180° meridian
  - (C) North and South Polar circles
- (vi) Which circle appears as a point on the globe?
  - (A) Equator
- (B) North/South Pole
- (C) Prime Meridian
- (vii) How many places on the earth may be located on 45° N parallel?
  - (A) one

(B) many

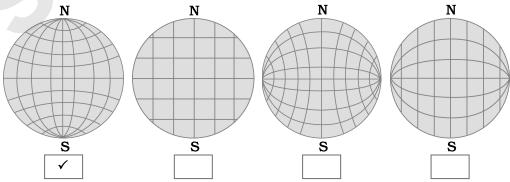
(C) two

Answers:

- (i) (C)
- (ii) (B)
- (iii) (C)
- (iv) (A)
- (v) (B)

- (vi) (B)
- (vii) (B)
- \*2. Find the correct graticule out of the following and put a tick mark (✓) against it.

Ans:



[Note: Here, we have directly given tick against the correct option.]



#### Right or Wrong? If Wrong, write the correct sentence

#### \*1. Observe a globe and examine the following statements. Correct the wrong ones.

(i) Parallels of latitude lie parallel to the Prime Meridian.

**Ans:** Wrong Correct sentence: Parallels of latitude lie parallel to the equator/ each other.

(ii) All parallels of latitude converge at the equator.

**Ans:** Wrong Correct sentence: All parallels of the latitude do not converge at any point.

(iii) Parallels and meridians are imaginary lines.

Ans: Right

(iv) 8° 4′ 65" is a north meridian.

**Ans:** Wrong Correct sentence: 8° 4′ 65" is a north parallel of latitude.

(v) Meridians are parallel to each other.

**Ans:** Wrong

Correct sentence: The parallels of latitude are parallel to each other while the meridians converge at the poles.

2. North Pole bisects the earth into northern and southern hemisphere.

**Ans:** Wrong Correct sentence: Equator bisects the earth into northern and southern hemisphere.

At the north and south ends of the earth's axis, parallels of latitude appear as points.

Ans: Right

#### Complete the table

#### \*1. Complete the following table.

| Characteristics | Parallels of latitude               | Meridians of longitude       |  |  |
|-----------------|-------------------------------------|------------------------------|--|--|
| Shape           |                                     |                              |  |  |
| Size            | Size of each parallel is different. |                              |  |  |
| Distance        |                                     | Distance between two         |  |  |
|                 |                                     | meridians is larger on the   |  |  |
|                 |                                     | equator and the same         |  |  |
|                 |                                     | decreases towards the Poles. |  |  |

#### Ans:

| Characteristics Parallels of latitude |                                | Meridians of longitude           |  |  |
|---------------------------------------|--------------------------------|----------------------------------|--|--|
| Shape                                 | Each parallel is circular in   | Each meridian is semi-circular   |  |  |
|                                       | shape.                         | in shape.                        |  |  |
| Size                                  | Size of each parallel is       | Size of each meridian is the     |  |  |
|                                       | different.                     | same.                            |  |  |
| Distance                              | Distance between any two       | Distance between two meridians   |  |  |
|                                       | adjacent parallels is the same | is larger on the equator and the |  |  |
|                                       | everywhere on the surface of   | same decreases towards the       |  |  |
|                                       | earth.                         | Poles.                           |  |  |

#### Answer in one sentence

#### 1. Which is the largest parallel of latitude?

**Ans:** The 0° parallel, i.e. equator, is the largest parallel of latitude.

#### 2. How do we refer to the parallels from the southern hemisphere?

**Ans:** The parallels from the southern hemisphere are referred to as 5° S, 15° S, 30° S, 50° S, etc.

#### Std. VI: Perfect Geography



#### 3. How many parallels can be drawn on the earth at the interval of 1°?

**Ans:** 181 parallels can be drawn on the earth at the interval of 1°.

#### 4. What is 0° meridian known as?

**Ans:** 0° meridian is known as the Prime Meridian.

#### 5. How are meridians in the eastern hemisphere labelled?

**Ans:** Meridians in the eastern hemisphere are labelled as 10° E, 25° E, 135° E, etc.

#### 6. What is the distance between any two adjacent parallels?

**Ans:** The distance between any two adjacent parallels is 111 km.

#### 7. How are latitudes and longitudes expressed conventionally?

**Ans:** The latitudes and longitudes are conventionally expressed into degrees, minutes and seconds.

#### 8. What does GIS stand for?

**Ans:** GIS stands for Geographical Information System.

#### Define

#### 1. Globe

Ans: Globe is the miniature model of earth developed by geographers.

#### 2. Parallels of latitude

**Ans:** Parallels of latitude are east-west circles created at some angular distance from the centre of the earth.

#### 3. Meridians of longitude

**Ans:** Meridians of longitude are north-south semicircles created at some angular distance from the centre of the earth.

#### Answer the following

#### \*1. How will you express the latitude and longitude of the North Pole?

**Ans:** (i) The <u>parallel of latitude</u> at the North Pole is 90°N.

(ii) All the meridians of longitude pass through the North Pole. Hence, it <u>does</u> not have any specific value for longitude.

# Good to Know

During 2<sup>nd</sup> Century, Ptolemy (Roman Geographer, Astronomer and Mathematician) used the words 'Latitudes' and 'Longitudes' for the first time.

# \*2. How much is the angular distance between the Tropic of Cancer and Tropic of Capricorn?

**Ans:** (i) The angular distance between <u>Tropic of Cancer</u> and the equator is <u>23° 30′</u> while that between <u>Tropic of Capricorn</u> and the equator is also <u>23° 30′</u>.

(ii) Since both these parallels lie on either side of the equator, the <u>total angular</u> distance between them is  $23^{\circ} 30' + 23^{\circ} 30' = 46^{\circ} 60' = 47^{\circ}$ .

# \*3. Using a globe, write down the names of the countries through which the equator passes.

**Ans:** The equator passes through: Ecuador, Colombia, Brazil, Sao Tome and Principe, Gabon, Republic of the Congo, Democratic Republic of the Congo, Uganda, Kenya, Somalia, Maldives, Indonesia and Kiribati.



#### \*4. Write down the main uses of the graticule.

- **Ans:** (i) Graticule is mainly used to <u>determine the exact location of any place on the earth</u>.
  - (ii) Some of the <u>modern day applications that use graticule</u> are Geographical Information System (GIS), Global Positioning System (GPS), Google Maps, Wiki-mapia and Bhuvan of ISRO.

#### 5. Why did geographers develop the globe?

- **Ans:** (i) Directions alone are not enough to determine the location of any place on the earth since the <u>direction of the same place will vary in accordance with person's location.</u>
  - (ii) This difficulty can be solved if <u>lines parallel to each other</u> are drawn around the earth.
  - (iii) Due to the <u>large size of the earth as well as its features</u> such as oceanic waters, uneven land, forests, innumerable islands and buildings, it is <u>practically impossible to draw such lines</u> around the earth.
  - (iv) <u>To overcome this difficulty, geographers developed</u> a miniature model of the earth, called <u>the globe</u>.
- 6. Does the Global Positioning System (GPS) help you in day-to-day life? How?

(Open Ended Question)

- Ans: (i) Yes, the Global Positioning System (GPS) helps me in day-to-day life.
  - (ii) It is easier to determine the <u>exact location</u> of any place with GPS.
  - (iii) It enables us to navigate in new and <u>unexplored regions</u> without hassles.

#### Give reasons

- 1. The distance between two adjacent parallels is same everywhere while the distance between two adjacent meridians is not.
- **Ans:** (i) The parallels of latitude are <u>east-west circular lines</u> drawn parallel to the equator and <u>continue till the poles</u>. Hence, the distance between any two adjacent parallels is same everywhere.
  - (ii) The meridians of longitude are <u>semicircles drawn from the North Pole to the South Pole</u>. As the meridians <u>converge at both the poles</u>, the distance between any two meridians varies at different places on the surface of the earth.

#### FORMATIVE ASSESSMENT

#### Apply Your Knowledge

1. Make friends with maps! (Textbook page no. 1)

Observe figure 1.1 (on pg. no. 1 of your textbook) and answer the following questions:

(i) Which places are shown on the map?

**Ans:** The places shown on the map are Lima in South America, St. Petersburg and Rome in Europe, Agra, Tokyo and Port Blair in Asia and Kimberly in Africa.

(ii) In which city is the Taj Mahal located?

Ans: Taj Mahal is located in the city of Agra.

(iii) In which continent is the Taj Mahal located?

**Ans:** Taj Mahal is located in the continent of Asia.



(iv) In which direction is the Taj Mahal located for Graham in St. Petersburg, for Katya in Kimberley, for Michiko in Tokyo and Minakshi in Port Blair?

Ans: The direction of Taj Mahal for each person is as follows:

| Person and his location  | Direction of Taj Mahal |
|--------------------------|------------------------|
| Graham in St. Petersburg | South-East             |
| Katya in Kimberly        | North-East             |
| Michiko in Tokyo         | South-West             |
| Minakshi in Port Blair   | North-West             |

(v) Shahid in Agra is specifying the directions in which the others live. How will he express them?

**Ans:** Shahid in Agra will specify the directions of other people in the map as:

| Person and his location                             | Direction specified by Shahid |
|---|-------------------------------|
| Enrike in Lima as well as Katya in Kimberly         | South-West                    |
| Graham in St. Petersburg as well as Natalia in Rome | North-West                    |
| Minakshi in Port Blair                              | South-East                    |
| Michiko in Tokyo                                    | North-East                    |

(vi) In what direction will Natalia in Rome and Enrike in Lima say the other child lives? Will their answers be the same?

**Ans:** Natalia in Rome will specify Enrike in Lima to be in the South-West direction while Enrike in Lima will specify Natalia in Rome to be in the North-East direction. Thus, their answers will be different.

**2. Think a little!** (Textbook page no. 2)

Observe the globe in your school. Think about the following questions and then discuss them.

(i) There are some vertical and horizontal lines on the globe. Which of these lines are more in number?

**Ans:** The vertical lines on the globe are more in number as compared to horizontal lines.

(ii) What labels do these lines have? What similarities and differences do you see in the labels?

**Ans:** Both vertical and horizontal lines are indicated by numbers which are measured in degrees.

- (a) Similarity: The value of each vertical as well as horizontal line is mentioned by writing some suffix after the measurement of its angle.
- (b) Difference: The value of each horizontal line has the suffix 'N' or 'S' while that of vertical line has the suffix 'E' or 'W'.
- (iii) Will it be possible to actually draw such lines on the earth?

**Ans:** No, it won't be possible to actually draw these lines on the earth.

- **3. Intext question** (Textbook page no. 2)
  - (i) Look at the figure 1.3 (on pg. no. 2 of your textbook) and tell the angular distance of 'Y' from the equator.

**Ans:** The angular distance of 'Y' from the equator is 60°.

(ii) Figure 1.3 shows another plane. It passes through X. It is parallel to the plane of the equator. Observe figure 1.3 and see how it meets the surface of the earth.

**Ans:** The plane which passes through X and is parallel to the plane of the equator meets the surface of the earth along its circular edge.

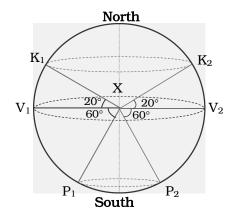


**4. Do it yourself!** (Textbook page no. 2)

Use figure 1.4 (on pg. no. 3 of your textbook) for the following:

- (i) In the upper portion of the circle, at the centre X, draw angles of 20°,  $V_1XK_1$  and  $V_2X$   $K_2$ ;  $K_1$  and  $K_2$  being the points on the circle. Draw an ellipse<sup>®</sup> joining  $K_1$  and  $K_2$ .
- (ii) In the lower half of the circle, mark angles of  $60^{\circ}$  and name the points on the circle as  $P_1$  and  $P_2$ .
- (iii) Draw an ellipse joining  $P_1$  and  $P_2$ .

Ans:



- **5. Can you tell?** (Textbook page no. 3)
  - (i) Are the distances between  $K_1K_2$  and  $P_1P_2$  the same?

**Ans:** No, the distances between  $K_1K_2$  and  $P_1P_2$  are not same. The distance between  $K_1K_2$  is greater.

(ii) Compare the distances XK<sub>1</sub> and XP<sub>2</sub>. Are these distances the same or are they different?

**Ans:** The distances  $XK_1$  and  $XP_2$  are same.

(iii) Now compare the ellipses you have drawn. Which is the larger ellipse? Why?

**Ans:** The ellipse passing through  $K_1$  and  $K_2$  is larger than the ellipse passing through  $P_1$  and  $P_2$ . This is because the distance between  $K_1K_2$  is greater than the distance between  $P_1P_2$ .

**6. Use your brain power!** (Textbook page no. 3)

Explain the meaning of the term Equator.

**Ans:** The equator is an imaginary line around the earth which divides the earth into two equal hemispheres. It is also described as 0° parallel, largest parallel, and a great circle.

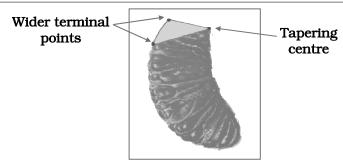
- **7. Do it yourself!** (Textbook page no. 4)
  - (i) Take an orange and peel off its skin. You will see the segments inside and thin vertical lines on them. Carefully take out one segment. Observe the segment and the gap it has left in the orange. See the figure 1.7 (on pg. no. 5 of your textbook).

**Ans:** After removing a segment of orange and observing it from the top (as shown in figure 1.7), it appears, that a triangular section is removed from the circle. The angle of the removed segment is same as the angle of the gap left in the orange.

(ii) See if the shape of the central and terminal portion of the segment is the same or different.

**Ans:** The central portion of the segment is tapering, while the terminal portion is wider.





(iii) See if the angle of the gap is the same at all points.

**Ans:** The angle of the gap is same at all the points of the segment.

(iv) Find how many segments there are in an orange.

Ans: There are approximately 10 segments in an orange

**8. Do it yourself!** (Textbook page no. 5)

Use figure 1.9 (on pg. no. 5 of your textbook) to do the following: Let the line AM be 0°.

Draw the line MB. Measure the angle it makes with the line AM and write it near B. Note the semicircle that passes through B and joins the North and South Poles. Trace it.

Now join MC. Measure ∠AMC and write it next to C. Draw a semicircle that passes through 'C' and joins the North and South Poles.

Draw a line that passes through point A at  $0^{\circ}$ , and joins the North and South Poles.

- (i) The required diagram is shown in figure alongside.
- (ii) Students are expected to measure  $\angle$ AMB and  $\angle$ AMC on their own.



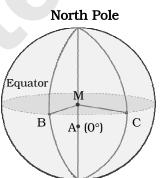
- (i) A game of reading the meridians on the world map is going on. Shaheen and Sanket are asking each other to locate places on specific meridians and are making notes of the same. Shaheen asks Sanket to locate Wrangel Island on 180° meridian. Sanket could locate the island in the map but both are confused while making a note of it. They are puzzled whether to write 180° E or 180° W? What would be the precise answer? Please help them.
- Ans: 0° and the 180° meridians lie opposite to each other and form a circle around the earth. This circle divides the earth into the Eastern hemisphere and the Western hemisphere. We can draw 179 meridians each in the eastern as well as western hemisphere and label them as 1° E to 179° E and 1° W to 179° W, respectively. Thus, Wrangel Island is written as 180° meridian without any suffix.
- (ii) Can we use a similar logic with reference to 0° meridian as well?

**Ans:** Yes.  $0^{\circ}$  meridian is known as the Prime Meridian. Therefore, it is not labelled as  $0^{\circ}$  E or  $0^{\circ}$  W.

10. Use your brain power! (Textbook page no. 7) (Oral Work)

How many parallels and meridians can be drawn on a globe at an interval of 10°?

Ans: (i) There are 90 parallels on either side of equator each at an interval of  $1^{\circ}$ . Hence, if parallels are drawn at an interval of  $10^{\circ}$ , we can draw 9 parallels on either side of equator. Thus, there will 19 parallels in all.



South Pole



(ii) There are 179 meridians on either side of the Prime Meridian till the 180° meridian, at an interval of 1°. Hence, if meridians are drawn at an interval of 10°, we can draw 17 meridians starting from the 0° Prime Meridian till the 180° Meridian on both the sides. Thus, there will be 36 medians in all.

**Oral Test** 

#### 1. Name the places located on 30° N parallel.

**Ans:** New Orleans in North America, Cairo in Africa, Basra and Lhasa in Asia are located on 30° N parallel.

#### 2. How many parallels are there in the southern hemisphere?

**Ans:** There are 90 parallels in the southern hemisphere.

#### 3. What are longitudes?

**Ans:** The longitudes are angular distances of other meridians from the Prime Meridian, measured in degrees.

#### 4. Where does the distance between the adjacent meridians become zero?

**Ans:** The distance between the adjacent meridians become zero at the North and South Poles.

#### 5. How are meridians in the western hemisphere labelled?

**Ans:** Meridians in the western hemisphere are labelled as 10° W, 25° W, 135° W, etc.

#### 6. At which place the distance between adjacent meridians is the maximum?

**Ans:** The distance between two adjacent meridians is the maximum on the equator.

Activities / Project

\*1. Look at the photographs shown on pg. no. 9 of your textbook.

Try to draw a graticule on a ball as shown in the figure.

(Students are expected to attempt this activity on their own.)

#### CHAPTER ASSESSMENT

| 1. Choose the correct alternative | 1. | Choose | the | correct | al | ternative |
|-----------------------------------|----|--------|-----|---------|----|-----------|
|-----------------------------------|----|--------|-----|---------|----|-----------|

- (i) What is the length of earth's diameter along the north-south direction?
  - (A) 12417 km
- (B) 12714 km
- (C) 12756 km
- (ii) The parallels of latitude are parallel to which Great Circle?
  - (A) Equator
- (B) 180° Meridian
- (C) Prime Meridian
- (iii) How many meridians are there in the eastern hemisphere between  $0^{\circ}$  and  $180^{\circ}$  Meridian?
  - (A) 181
- (B) 90
- (C) 179

#### 2. Who am I?

- (i) I am the imaginary line which bisects the earth into northern and southern hemisphere.
- (ii) I am considered to be the  $0^{\circ}$  meridian.
- (iii) I am a net formed by the parallels of latitude and meridians of longitude.

#### Std. VI: Perfect Geography



#### 3. Answer the following.

- (i) Write the important features of parallels of latitude.
- (ii) How are the angular units of measurement of latitudes and the longitudes divided to exactly locate a place on the earth?

#### Answers:

- 1. (i) (B)
- (ii) (A)
- (iii) (C)

- 2. (i) Equator
- (ii) Prime Meridian (iii) Graticule
- 3. (i) (a) Each parallel of latitude is <u>circular</u> in shape.
  - (b) The size of the parallels goes on decreasing from equator towards the poles.
  - (c) The <u>distance between any two adjacent parallels is same</u> on the surface of earth.
  - (d) The <u>angular distance</u> of the parallels <u>goes on increasing from equator</u> towards north or south.
  - (ii) (a) The angular distance between <u>any two adjacent parallels</u> of latitude and any two adjacent <u>meridians of longitude</u> is 1°.
    - (b) In order to locate the places between two adjacent parallels and meridians, the <u>measure of 1° is further divided</u> into minutes and minutes are further divided into seconds. Each degree (1°) is divided into 60 minutes and a minute into 60 seconds.



# **AVAILABLE BOOKS FOR STD. VI:**

(ENG., MAR. & SEMI ENG. MED.)

#### NOTES

- English Balbharati
- मराठी सुलभभारती
- हिंदी सुलभभारती
- History-Civics
- Geography
- General Science
- **Mathematics**

#### NOTES

- → My English Book
- 🗕 मराठी बालभारती
- 🗕 हिंदी सुलभभारती
- 🔹 इतिहास व नागरिकशास्त्र
- 🕶 भूगोल
- सामान्य विज्ञान
- गणित

## WORKBOOK

- English Balbharati
  - मराठी सुलभभारती
- हिंदी सुलभभारती
- **History-Civics**
- Geography
- General Science
- Mathematics

### **ADDITIONAL TITLES**

GRAMMAR & WRITING SKILLS BOOKS (STD. VI & VII)

- Marathi
- Hindi

# **AVAILABLE BOOKS FOR STD. VII:**

(ENG., MAR. & SEMI ENG. MED.)

#### NOTES

- **English Balbharati**
- मराठी सुलभभारती
- हिंदी सुलभभारती
- History-Civics
- Geography
- General Science
  - Mathematics

#### NOTES

- My English Book
- 🗕 मराठी बालभारती
- 🗕 हिंदी सुलभभारती
- 🗕 इतिहास व नागरिकशास्त्र
- भूगोल
- 🔫 सामान्य विज्ञान
- 🗕 गणित

## WORKBOOK

- English Balbharati
- मराठी सुलभभारती
- हिंदी सुलभभारती
- History-Civics
- Geography
- General Science
- Mathematics



Scan the QR code to buy e-book version of Target's Notes on Quill -



# **OUR PRODUCT RANGE**

Children Books | School Section | Junior College | Degree College | Entrance Exams | Stationery

**Visit Our Website** 

# Target Publications® Pvt. Ltd. Transforming lives through learning.

#### Address:

2<sup>nd</sup> floor, Aroto Industrial Premises CHS, Above Surya Eye Hospital, 63-A, P. K. Road, Mulund (W), Mumbai 400 080

Tel: 88799 39712 / 13 / 14 / 15

Website: www.targetpublications.org Email: mail@targetpublications.org



Explore our range of STATIONERY

