

## Chart 01: 10th Std Subject Difficulty (TMNP)

### Subject Difficulty Chart

No.	Subjects	9th Std	Total	Simple	Workable	Difficult
		Marks	Marks	75% above	60% Above	60% Below
1	Geometry					
2	Algebra					
3	Science 1					
4	Science 2					
5	English					
6	Marathi					
7	Hindi					
8	German /Sanskrit					
9	History					
10	Geography					

No.	Subjects	Marks	Total Chapters	Simple	Workable	Difficult
1	Geometry		7			
2	Algebra		6			
3	Science 1		10			
4	Science 2		10			
5	English					
6	Marathi		16			
7	Hindi		16			
8	German /Sanskrit					
9	History		9			
10	Geography		9			

Chart No. 02 10th Std Weekly Time Table (TMNP)

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Part	Timing								Rest
Early Morning	5.00 to 6.00								Study
	6.00 to 7.30								Free Time
Morning & Afternoon	8.00 to 11.00								Lunch
	11.00 to 1.00								Dinner
Afternoon	1.00 to 2.00								Walk/Exercise
	2.00 to 3.00								Optional Study
Late Afternoon	3.00 to 5.00								School
	5.00 to 7.00								Class
Evening	7.00 to 8.00								Home Work
	8.00 to 9.00								TV Time
Night	9.00 to 10.00								Mobile Time
	10.00 to 11.00								Home Help
	Hrs Study								
						Total Hrs Study / week			

		Marks	Simple	Workable	Difficult	
Lesson 01	<b>Linear equations in two variables</b>	Linear equations in two variables				
		Simultaneous liner equation				
		Graph				
		Graphical method				
		Determinant				
		Cramer's rule				
		Equations reducible to a pair of linear equations in two variables				
		Application if simultaneous equations				
Lesson 02	<b>Quadratic Equations</b>	Std form of quadratic equation				
		roots of quadratic equation				
		Solutions of quadratic by:				
		1. Factorization				
		2. Completing the square				
		3. Formula method				
		Nature of roots of a quadratic				
		Relation between roots of quadratic & coefficients				
		To obtain a quadratic having given roots				
		Application of quadratic equations				
Lesson 03	<b>Arithmetic Progression</b>	Sequence				
		Terms in a sequence				
		Arithmetic Progression (A.P.)				
		n'th term of an AP				
		Sum of first 'n' terms of A.P.				
		Application of A.P.				
Lesson 04	<b>Financial Planning</b>	Tax Invoice				
		GST Introduction				
		GST - Computation & ITC				
		Shares, Mutal Funds & SIP				
		Comparison of FV & MV				
		Rate of Return - ROR				
		Brokerage & Taxes on share trading				
		GST on Brokerage Services				
Systematic Investment Plan						
Lesson 05	<b>Probability</b>	Random Experiment				
		Outcome				
		Equally likely outcomes				
		Sample Space				
		Events				
		Probability of an event				
Lesson 07	<b>Statistics</b>	Mean from classified frequency distribution				
		Direct Method				
		Assumed mean method				
		Step deviation method				
		Mode for grouped frequency distribution				
		Presentation of data				
		Histogram				
		Frequency polygon				
		Reading of Pie diagram				
		To draw a Pie Diagram				



**Geometry**

**Marks Simple Workable Difficult**

**Lesson 01 Similarity**

Ration of areas of two triangles				
Basic Proportionality theorem				
Converse of basic proportionality Theorem				
Tests of Similarity of triangles				
Property of an angle				
Bisector of a triangle				
The ration of the intercepts made on the transversals by three parallel lines				
Property of areas of similar triangles				

**Lesson 02 Pythagoras Theorem**

Pythagorean triplet				
Theorem of geometric mean				
Similarity & right angled triangles				
Pythagoras Theorem				
Application of Pythagoras Theorem				
Apollonius theorem				

**Lesson 03 Circle**

Circles passing through one, two, three points				
Secant & tangent				
Tangent & Converse theorem				
Tangent segment theorem				
Touching cycles & theorem				
congruence of arcs				
Property of sum of measures of arcs & converse				
Inscribed angle theorem				
Intercepted arc				
Corollaries of inscribed angle				
Theorem & Collollary of cyclic quadrilateral theorem & converse				
Theorem of angle between tangent & secant & Converse				
Theorem of internal division of chords				
Theorem of external division of chords				
Tangent secant segments theorem				

**Lesson 04 Geometric Constructions**

Construction of a triangle similar to the given tringle				
Construction of a tangent to a circle at a point on circle				
To construct tangents to a circle from a point outside the circle				

**Lesson 05 Co-ordinate Geometry**

Distance Formula				
Division of a line segment				
Section formula				
Co-ordinates of the mid point of a segment				
Centroid Formula				
Slope of a line				

Chart No.4-10th std Geometry (TMNP)

**Geometry**

**Marks Simple Workable Difficult**

Lesson 06 **Trigonometry**

Trigonometric ratios				
Trigonometric identities				
Application of Trigonometry				

Lesson 07 **Mensuration**

Frustum of Cone				
Sector of a circle				
Area of a sector				
Length of an arc				
Segment of a circle				
Area of a segment				



**Science 1**

**Marks      Simple      Workable      Difficult**

**Lesson 01 Gravitation**

Gravitation				
Force & Motion				
Circular Motion & Centripetal force				
Kepler's Laws				
Newton's Universal Law of gravitation				
Earth's gravitational force				
Earth's gravitational acceleration				
Variation in Value of 'g'				
Mass & Weight				
Free Fall				
Gravitational Potential energy				
Escape Velocity				

**Lesson 02 Periodic Classification of Elements**

Classification of elements				
Dobereiner's Triads				
Newland's law of Octaves				
Mendeleev's Periodic table				
Merits of Mendeleev's periodic table				
Demerits of Mendeleev's periodic table				
Modern periodic law				
Structure of modern periodic table				
Periods & electronic configuration				
Period trends				
Atomic size				
Metallic - Non Metallic Character				

**Lesson 03 Chemical Reactions and Equations**

Chemical reactions and Equations				
Writing a chemical equation				
Balancing an equation				
Steps in balancing an equation				
Types: Combination reaction				
Decomposition reaction				
Displacement reaction				
Double displacement reaction				
Endothermic & Exothermic processes & reactions				
Factors affecting rate of chemical reactions				
Oxidation & Reduction				
Corrosion				
Rancidity				

**Lesson 04 Effects of Electric current**

Energy transfer in an electric current				
Heating effect of electric current				



**Science 1**

	Marks	Simple	Workable	Difficult
Magnetic effect of electric current				
Magnetic field produced by current through a circular loop				
Magnetic field due to current in a solenoid				
Fleming's left hand rule				
Electric motor				
Electromagnetic Induction				
Galvanometer				
Faraday's Law of Induction				
Fleming's right hand rule				
Alternating & Direct Current				
Electric Generator				

**Lesson 05 Heat**

Latent heat				
Anomalous behavior of water				
Regelation				
Dew point & humidity				
Unit of heat				
Specific heat capacity				
Heat Exchange				
Measurement of Specific heat & Calorimeter				

**Lesson 06 Refraction of Light**

Refraction of light				
Laws of refraction				
Refractive Index				
Twinkling of stars				
Dispersion of light				
Partial & Total internal reflection				

**Lesson 07 Lenses**

Lenses				
Images formed by convex lenses				
Images formed by concave lenses				
Sign Convention				
Lenses Formula				
Magnification				
Power of lens				
Combination of Lenses				
Human eye and working				
Defects of vision				
Apparent size of an object				
Use of lenses				
Persistence of vision				

**Lesson 08 Metallurgy**

Physical Properties of metals & non -metals				
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**Science 1**

	Marks	Simple	Workable	Difficult
Chemical properties of metals & reaction with them				
Reactivity series of metals				
Chemical properties of non-metals				
Ionic compounds				
Properties of ionic compounds				
Metallurgy & occurrence of metals				
Basic principles: 1. Concentration of ores				
2. Separation based in gravitation				
3. Magnetic separation				
4. Froth floatation				
5. Leaching				
Extraction of metals				
Corrosion of metals				
Prevention of corrosion				

**Lesson 09 Carbon Compounds**

Bonds in Carbon compounds				
Carbon: a versatile element				
Hydrocarbons: Saturated or unsaturated				
Functional groups in carbon compounds				
Homologous series				
Nomenclature series of Carbon compounds				
IUPAC system of nomenclature				
Chemical properties				
Ethanol & Ethanoic acid				
Chemical properties of Ethanol & Ethanoic acid and their reactions				
Macro Molecules and polymers				

**Lesson 10 Space Mission**

Space Mission				
Artificial Satellites				
Need & importance of satellites				
orbits of artificial satellites				
High Earth orbits				
Medium Earth Orbits				
Low Earth Orbits				
Satellite Launch Vehicle				
Space Mission away from Earth				
India & Space technology				
Missions to other planets				
Moon & Mars Missions				
Space Debris & Its Management				







**Science 2**

		Marks	Simple	Workable	Difficult
Lesson 06	<b>Introduction of Microbiology</b>				
	Solar Thermal Power Plant				
	Applied Microbiology				
	Industrial Microbiology				
	Industrial Microbiology: Main Features Products				
	Organic acids used in various commercial products & microbes useful for same				
Lesson 07	<b>Cell Biology &amp; Bio-technology</b>				
	Cytology				
	Stem Cells				
	Biotechnology				
	Commercial applications of biotechnology				
	White revolution				
	Blue revolution Fertilizers				
Lesson 08	<b>Social Health</b>				
	Social Health				
	Factors disturbing the social health				
	Communication Media & excessive use of Modern Technology				
	Stress Management				
Lesson 09	<b>Disaster Management</b>				
	Disasters				
	Effects of Disasters				
	nature & Scope of Disasters				
	Disaster Management				
	Structure of Disaster				
	Management Authority				
	First Aid & Emergency Action				
Mock Drill					









**Chart No. 08- 10th Std Memory Plan**

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Part	Timing							
Morning	5.00 to 11.00	Difficult Subject	Difficult Subject	Difficult Subject	Difficult Subject	Workable Subject	Workable Subject	Simple Subject
Afternoon	12.00 to 4.00	Workable Subject	Workable Subject	Workable Subject	Workable Subject	Difficult Subject	Difficult Subject	Difficult Subject
Evening	5.00 to 8.00	Simple Subject	Simple Subject	Simple Subject	Workable Subject	Difficult Subject	Difficult Subject	Difficult Subject
Night	9.00 to 11.00	Workable Subject	Workable Subject	Workable Subject	Difficult Subject	Difficult Subject	Difficult Subject	Difficult Subject