

TMNP Study Skill Workshop for 9th

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	Total	Total	Simple	Workable	Difficult
		Marks	Chapters			
1	Geometry		9			
2	Algebra		7			
3	Science 1		10			
4	Science 2		8			
5	English		20			
6	Marathi		20			
7	Hindi		22			
8	German /Sanskrit					
9	History		10			
10	Geography		12			

TMNP Study Skill Workshop
Algebra/ M1

		Marks	Simple	Workable	Difficult	
Lesson 01	Sets	Introduction to sets				
		Types of sets				
		Venn Diagrams				
		Equal sets, subset				
		Universal set				
		Intersection and Union of sets				
		Number of elements in a set				
Lesson 02	Real Numbers	Properties of rational numbers				
		Properties of irrational numbers				
		Surds				
		Comparison of quadratic surds				
		Operations on quadratic surds				
		Rationalization of quadratic surds				
Lesson 03	Polynomials	Introduction to Polynomials				
		Operations on Polynomials				
		Degree of the Polynomials				
		Synthetic Division				
		Value of the Polynomial				
		Remainder theorem				
Lesson 04	Ratio and Proportion	Ratio				
		Properties of ratios				
		Operations on equal ratios				
		Theorem on equal ratios				
		Continued proportions				
		k' method				
Lesson 05	Linear Equations in Two Variables	Introduction of Linear Equations in Two Variables				
		Simultaneous equations				
		Solving simultaneous equations				
		Word problems based on simultaneous equations				
Lesson 06	Financial Planning	Introduction to financial planning				
		Savings and Investments				
		Tax structure				
		Computation of Income-Tax				
Lesson 07	Statistics	Sub-divided bar-diagrams				
		Grouped and ungrouped frequency distribution				
		Percentage bar-diagram				
		Cumulative frequency distribution				
		Primary and secondary data				
		Mean, Median and Mode for ungrouped data				

Geometry/ M2

		Marks	Simple	Workable	Difficult
Lesson 01	Basic Concepts in Geometry	Point, Line and plane			
		Betweenness			
		Co-ordinates of a points and distance			
		Conditional statements			
		Proof			
Lesson 02	Parallel Lines	Properties of angle formed by parallel lines and its transversal			
		Tests of parallelness of two lines			
		Use of properties of parallel lines			
Lesson 03	Triangles	Theorem of remote interior angles of a triangle			
		Congruence of triangles			
		Theorem of isosceles triangle			
		Property of 30-60-90 degree angled triangle			
		Median of a triangle			
		Property of median on hypotenuse of a right angled triangle			
		Perpendicular bisector theorem			
		Angle bisector theorem			
		Similar triangle			
Lesson 04	Constructions of Triangles				
Lesson 05	Quadrilaterals	Parallelogram			
		Tests of parallelogram			
		Rhombus			
		Rectangles			
		Square			
		Trapezium			
		Mid point theorem			
Lesson 06	Circle	Circle			
		Property of chord of the circle			
		Incircle			
		Circumcircle			
Lesson 07	Co-ordinate Geometry	Axis, Origin, Quadrant			
		Co-ordinates of a point in a plane			
		To plot a point			
		Line parallel to X-axis			
		Line parallel to Y-axis			
		Equation of a line			
Lesson 08	Trigonometry	Introduction to trigonometry			
		Trigonometric ratios			
		Relations among trigonometric ratios			
		Trigonometric ratios of particular angles			
Lesson 09	Surface Area and Volume	Surface area of a cone			
		Volume of a cone			
		Surface area of a sphere			
		Volume of a sphere			

Science 1

Marks Simple Workable Difficult

Lesson 01 Laws of Motion

Motion				
Acceleration				
Distance and displacement				
Newton's laws of motion and related equations				

Lesson 02 Work and Energy

Work				
Energy				
Mechanical energy				
Law of conservation of energy				
Free fall				

Lesson 03 Current Electricity

Potential and Potential difference				
Conductors and insulators[bad conductors]				
Electrical resistance and Ohm's law				
Connection of resistors and effective resistance				

Lesson 04 Measurement of Matter

Law of chemical combination				
Atom- shape, mass, valency				
Molecular mass and the concept of mole				
Radicals				

Lesson 05 Acids, Bases and Salts

Arrhenius theory of acids and bases				
Concentration of an acid or a base				
pH of a solution				
pH of an acid and a base				
Salts				

Lesson 06 Classification of Plants

Kingdom plantae				
Sub-kingdom: Gymnosperms				
Sub-kingdom: Angiosperms				

Lesson 07 Energy Flow In A Ecosystem

Food chain and food web				
The energy Pyramid				
Bio-geo-chemical cycle: Carbon, oxygen and nitrogen cycles				

Lesson 08 Useful and Harmful Microbes

Useful micro-organisms: <i>Lactobacilli, Rhizobium, Yeast</i>				
Harmful micro-organisms: <i>Clostridium and others</i>				

Lesson 09 Environmental Management

Weather and climate				
Meteorology				
Solid waste management				
Disaster management				

Information Communication Technology: The new

Lesson 10 direction of progress

Important components of a computer				
Different types of software				
Imp of info. communication in science & technology				
orbits of artificial satellites				
Opportunities in the field of computers				

Science 2

		Marks	Simple	Workable	Difficult
Lesson 11	Reflection of Light				
	Mirrors and types of mirrors				
	Spherical mirrors and images formed by them				
	Magnification due to spherical mirrors				
Lesson 12	Study of Sound				
	Sound waves				
	Velocity of sound				
	Reflection of sound				
	The human ear, audible sound, infra sound, and ultra sound				
Lesson 13	Carbon: An Important Element				
	Carbon- occurrence, properties, allotropes				
	Hydrocarbons				
	Carbon dioxide and methane- Occurrence, properties, uses				
Lesson 14	Substances in Common Use				
	Important salts in day to day life-				
	Radioactive substances				
	Some chemical substances in day to day life				
Lesson 15	Life Processes in Living Organism				
	Transportation in plants				
	Excretion: Plants, Animals and Humans				
	Co-ordination: plants and humans				
Lesson 16	Heredity and Variation				
	Inheritance				
	Heredity: Characteristics and their appearance				
	Mendel's laws of inheritance				
	Diseases due to chromosomal aberrations				
Lesson 17	Introduction to Biotechnology				
	Tissues: animal tissues and plant tissues				
	Tissue culture				
	Agri-tourism				
	Agri-business				
Lesson 18	Observing Space: Telescope				
	Forms of light				
	Telescope and types of telescopes				
	Telescope in space				
	Indian Space Research Organisation [ISRO]				

Weekly Time Table

Study Details

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Part	Timing							
Early Morning	6.00 to 7.30	Part A: Study (1.30 hrs) Studying difficult subjects, concepts, memorizing, self notes, concept maps, flow charts etc. NO HOMEWORK AND ASSIGNMENTS						Free Time
Morning	8.00 to 1.30	School						
Late Morning	1.30 to 3.00	Free Time/ If you have classes then class hours					Additional Study: (3 hrs)	Additional Study (4 hrs)
Afternoon	3.00 to 4.30	Part B: Study (1.30 hrs) School, Class home work/ Class time						
Evening	5.00 to 9.00	Class/ Free time: Spending quality time with brothers, sisters, parents, watching TV entertainment programs, Calling friends etc.						Free Time
Night	9.00 to 11.00	Part C: Study (2hrs) Taking notes, short notes, questions & answers (Mostly writing work) and preparation of next day morning session work						Free Time

TMNP Study Skill Workshop
Weekly Time Table

Memory Plan

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Part	Timing								
Early Morning	6.00 to 7.30	Difficult Subject Memory Material	Simple Subject Memory Material	Workable Subject Memory Material	Difficult Subject Memory Material	Workable Subject Memory Material	Difficult Subject Memory Material	Free Time	
Morning	8.00 to 1.30	School							
Late Morning	1.30 to 3.00	Free Time/ If you have classes then class hours					Additional Study: (3 hrs)	Additional Study (4 hrs)	
Afternoon	3.00 to 4.30	Part B: Study (1.30 hrs) School, Class home work/ Class time							
Evening	5.00 to 9.00	Difficult Subject Memory Material	Workable Subject Memory Material	Workable Subject Memory Material	Difficult Subject Memory Material	Simple Subject Memory Material	Difficult Subject Memory Material	Free Time	
Night	9.00 to 11.00	Part C: Study (2hrs) Taking notes, short notes, questions & answers (Mostly writing work) and preparation of next day morning session work							Free Time

