Class: IX

Subject: Data Science

		SYLLABUS	
MONTH	**CHAPTER (NCERT Text book)**	**CONTENT (Topics)**	**Practical/Activities**
April	Unit 1: Communication Skills I **(Subject Specific)** Unit 1: Introduction to Data Science	Introduction to Communication Verbal Communication, Non-Verbal Communication, Writing Skills: Parts of Speech, Writing Skills:Sentences, What is data? Data vs Information DIKW model How does data influence our lives?	• Project on Popular dog breed • Writing pros and cons of written, verbal and nonverbal communication. • Listing do's and don'ts for avoiding common body language mistakes.
May	Unit 1: Communication Skills I **(Subject Specific)** Unit 1: Introduction to Data Science	Pronunciation Basics, Greetings and Introduction, Talking about Self, Asking Questions What are data footprints? Data loss and recovery	• Project on Popular dog breed • Draw a diagram of communication cycle
July	Unit 2: Self-Management Skills-I **(Subject Specific)** Unit 2: Arranging and collecting data	Introduction to Self-management, Strength and Weakness Analysis. Self-confidence,Positive Thinking,Personal Hygiene, Grooming What is data collection? What are variables? What are the different types of data? What are data sources?	• A Bar graph or dot plot using your classmates' personal information. • Role play exercises on building self confidence

Month	Unit / Topic	Content	Activities
August	Unit 3: ICT Skills-I	Introduction to ICT, ICT Tools: Smartphones and Tablets, Parts of Computer and Peripherals, Basic Computer Operations	• A Bar graph or dot plot using your classmates' personal information.
	(Subject Specific) Unit 2: Arranging and collecting data	What is big data? Asking questions on data? Univariate vs multivariate	• Preparing posters / collages for showing the role of ICT at workplace
September	Unit 3: ICT Skills-I	Performing Basic File Operations, Communication and Networking,Basics of Internet, Communication and Networking	• Preparing posters / collages for showing the role of ICT at workplace
October	**(Subject Specific)** Unit 3: Data Visualizations – Part 1	The importance of visualization Plotting data Histograms Use of shapes Use of single and multivariable plots	• Represent the data using various plots. • Presentations by entrepreneurs on their experiences and success stories
	Employability Skills Unit 4: Entrepreneurial Skills-I	What is Entrepreneurship? Role of Entrepreneurship, Qualities of a Successful Entrepreneur, Distinguishing Characteristics of Entrepreneurship and Wage Employment	
November	**(Subject Specific)** Unit 4: Ethics in Data Science	Ethical guidelines around data analysis Need for ethical guidelines in data analysis Goals of ethical guidelines in data analysis Data governance framework Why do we need to govern data? Goals of data governance	• Discussion on the precautions you need to take before handing out your details. • Presentations by entrepreneurs on their experiences and success stories
	Employability Skills Unit 4: Entrepreneurial Skills-I	Types of Business Activities, Product, Service and Hybrid Businesses, Entrepreneurship Development Process	

December	**(Subject Specific)** Unit 4: Ethics in Data Science	Ethical guidelines around data analysis Need for ethical guidelines in data analysis Goals of ethical guidelines in data analysis	• Discussion on the precautions you need to take before handing out your details.
			• Group discussion on hazards of deteriorating environment
	Employability Skills Unit 5: Green Skills-I	Society and Environment, Conserving Natural Resources, Sustainable Development and Green Economy	
January	Project		
February	Revision		
March	TERM-2 Exam		

ASSESSMENT SYLLABUS	
PERIODIC ASSESSMENT -1	**Subject specific skills:** Unit 1: Introduction to Data Science **Employability Skills** Unit 1: Communication Skills
PERIODIC ASSESSMENT -2	**Subject specific Skills** Unit 3: Data Visualizations – Part 1 **Employability Skills-** Unit 3: ICT Skills
MID TERM EXAM	**Subject specific skills:** Unit 1: Introduction to Data Science Unit 2: Arranging and collecting data **Employability Skills:** Unit 1: Communication Skills Unit 2: Self-Management Skills-I
FINAL EXAMINATION	**Subject specific skills:** Unit 1: Introduction Unit 2: Arranging And Collecting Data Unit 3: Data Visualizations – Part 1 Unit 4: Ethics in Data Science **Employability Skills:** Unit 1: Communication Skills Unit 2: Self-Management Skills-I Unit 3: ICT Skills Unit 4: Entrepreneurial Skills-I Unit 5: Green Skills-I