

Aatrral's Seyal- summer science retreat (May 1st to 20th,2024)

Welcome to the Seyal Summer Science Retreat, where exploration meets education in an immersive and enriching environment. At Seyal, we believe in the transformative power of practical learning, recognizing its indispensable role in shaping the future of science and society.

In today's rapidly evolving world, theoretical knowledge alone is not enough. Practical application of concepts is essential for fostering innovation, problem-solving, and meaningful contributions to the scientific community. That's why our retreat focuses on hands-on experiences, interactive demonstrations, and active participation to ensure a deeper understanding of core scientific concepts.

Through engaging activities and immersive workshops, participants not only gain theoretical knowledge but also learn how to apply it in real-world scenarios. We emphasize the importance of practical learning as a cornerstone of scientific progress, empowering participants to become critical thinkers, innovators, and leaders in their respective fields.

<i>Details</i>	<i>Description</i>
Age Limit	<i>Effective for 12 and above</i>
Fee (for one subject retreat)	<i>Rs 7,200 only (inclusive of food and accommodation)</i>
Fee (for all subjects)	<i>Rs 26,000 only (inclusive of food and accommodation)</i>
Accommodation	<i>Separate shared space provided for men and women</i>
Dining	<i>Farm-cooked fresh organic food shall be served</i>
Refreshments	<i>Refreshments provided throughout the retreat</i>
Contact	<i>9597379545, 9500286019</i>
Eligibility	<i>Open to students, self-learners, parents, and adults who have a keen interest in expanding their knowledge and learning new concepts.</i>
Apply at	<i>www.aatrral.org/seyal2024</i>

Discover all the exciting details about the retreat within the following pages. Dive deep to uncover the full scope of our enriching experience. If you're intrigued, don't hesitate to reach out to us via the provided contact information. Additionally, participants have the flexibility to select a single subject retreat for their participation.

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Mathematics (01-05-2024 to 05-05-2024)

Time	Day 1	Day 2	Day 3	Day 4	Day 5
7:00 AM	Morning Yoga & Warm-up Games	River Bath & Meditation	Nature Walk & Meditation	Yoga & Warm-up Games	River Bath & Meditation
8:00 AM	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
8:30 AM	Introduction to Mathematics in Nature	Practical Geometry	Data Handling in Nature	Astronomy Session	Geocaching Adventure
10:30 AM	Refreshment Break	Refreshment Break	Refreshment Break	Refreshment Break	Refreshment Break
10:45 AM	Hands-on Experiment	Experiment	Probability Games	Trigonometry Treasure Hunt	Group Presentations
12:30 PM	Lunch & Relaxation	Lunch & Relaxation	Lunch & Relaxation	Lunch & Relaxation	Lunch & Relaxation
3:00 PM	Team Building Games	Social life Math	Experiment	Team Building Games	Departure and end of the retreat
5:30 PM	Refreshment Break	Refreshment Break	Refreshment Break	Refreshment Break	
5:45 PM	Why so Math?	The life of X	Graphing the world	Easy is complex	
7:30 PM	Campfire & Folk Music	Campfire Stories and Stargazing	Movie Time	Campfire Tales of Mathematical Discoveries	
8:30 PM	Dinner	Dinner	Dinner	Dinner	

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Physics (06-05-2024 to 10-05-2024)

Time	Day 1	Day 2	Day 3	Day 4	Day 5
7:00 AM	Yoga, Nature Walk, Spirit Games, River Bath	Yoga, Nature Walk, Spirit Games, River Bath	Yoga, Nature Walk, Spirit Games, River Bath	Yoga, Nature Walk, Spirit Games, River Bath	Yoga, Nature Walk, Spirit Games, River Bath
8:00 AM	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
9:00 AM	Trekking	Workshop: Light, Shadows, Reflections	Workshop: Force and Pressure	Workshop: Light - Reflection and Refraction	Recap session
11:00 AM	Workshop: Motion and Measurement of Distances	Team-building games	Identifying daily physics	Physics Pioneers	Team-building games
1:00 PM	Lunch	Lunch	Lunch	Lunch	Lunch
3:00 PM	Team-building games	Workshop: Fun with Magnets	Workshop: Sound	Workshop: Electricity	Departure and end of the retreat
5:00 PM	Experiment session: Electricity and Circuits	Movie time	Escape Room Challenge	Trekking	
7:00 PM	River walk	Flow art session	Campfire with interactive science trivia	Flow art session	
8:00 PM	Campfire with folk music and storytelling	Dinner	Campfire with folk music and storytelling	Campfire with group discussions on renewable energy sources	
9:00 PM	Dinner	Evening discussion	Dinner	Dinner	

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Chemistry (11-05-2024 to 15-05-2024)

Time	Day 1	Day 2	Day 3	Day 4	Day 5
7:00 AM	Yoga and warm-up activities	Meditation and mindfulness session	River bath and morning nature walk	Morning yoga session	Morning nature walk and reflection
8:00 AM	Breakfast and team-building icebreaker games	Breakfast	Breakfast	Breakfast	Breakfast
9:00 AM	Introduction to chemistry concepts session	Hands-on experiments exploring elements, compounds, and mixtures	Interactive session on acids, bases, and salts	Introduction to carbon chemistry with hands-on activities	Recap of all chemistry concepts covered with group discussions
11:00 AM	Trekking and nature walk with discussions	Team-building games (Trust Walk, Team Building Tower, Minefield)	Hands-on experiments with acids, bases, and salts	Trekking and nature exploration focusing on carbon-containing compounds	Closing ceremony with group presentations
1:00 PM	Lunch and relaxation	Lunch and relaxation	Lunch and relaxation	Lunch and relaxation	Lunch and farewell
3:00 PM	Interactive experiments and demonstrations	Group activity: "Escape Room Challenge"	Outdoor team-building games (Human Knot, Spider Web)	Outdoor adventure activities (Zip lining, rock climbing)	Departure and end of the retreat
5:00 PM	River walk with hands-on activities	Flow art workshop incorporating chemical reactions	Egg Drop challenge incorporating chemical principles	Environmental conservation activity	
8:00 PM	Dinner	Dinner	Dinner	Dinner	
9:00 PM	Campfire and folk music session	Movie time featuring science-themed films	Campfire storytelling and stargazing	Campfire and interactive science quiz	

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Bioscience (Biology) (16-05-2024 to 20-05-2024)

Time	Day 1	Day 2	Day 3	Day 4	Day 5
7:00 am - 8:00 am	Yoga/Warm-up Games/River Bath/Nature Walk/Meditation	River Walk and Meditation	Nature Walk and Bird Watching	Morning Yoga and Meditation	River Bath and Morning Walk
8:00 am - 8:30 am	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
8:30 am - 10:30 am	Introduction to Bioscience - Diversity of Living Organisms (Interactive Session)	Interactive Session: Nutrition in Plants and Animals	Workshop: Cell Structure and Functions	Workshop: Reproduction in Plants and Animals - Presentation	Session on Environmental Conservation - Role of Individuals
10:30 am - 10:45 am	Refreshments	Refreshments	Refreshments	Refreshments	Refreshments
10:45 am - 12:30 pm	Hands-on Activity: Microscope Workshop - Exploring Microorganisms	Food Science Experiment: Plant and Animal Nutrition	Hands-on Activity: Fabrication of Paper Plane Contest	Experiment: Plant Propagation Techniques	Group Project: Designing Eco-friendly Solutions
12:30 pm - 3:00 pm	Lunch and Leisure Time	Lunch and Leisure Time	Lunch and Leisure Time	Lunch and Leisure Time	Lunch and Leisure Time
3:00 pm - 5:00 pm	Trekking Expedition - Observing Biodiversity in Natural Habitat	Flow Art Workshop - Expressing Natural Phenomena through Art	Gym and Yoga to human health	Adventure Sports	Departure and end of the retreat
5:00 pm - 5:15 pm	Refreshments	Refreshments	Refreshments	Refreshments	
5:15 pm - 7:00 pm	Team Building Games (e.g., Build-a-Bridge, Lifeboat)	Outdoor Movie Time: Documentary on Wildlife Conservation	Team Building Games (e.g., Balloon Pop, Obstacle Course Relay)	Team Building Games (e.g., Pipeline, Silent Puzzle)	
7:00 pm - 8:00 pm	Dinner	Dinner	Dinner	Dinner	
8:00 pm onwards	Campfire and Folk Music Night	Stargazing Session	Bonfire and Storytelling Session	Talent Show Night	

- The schedule provided is a model but may change due to factors like weather, preferences, or unforeseen circumstances, ensuring flexibility for the best participant experience.

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Concepts coverage

Subject	Core Concepts
Mathematics	Arithmetic Operations, Fractions, Decimals, Geometry, Algebra, Equations, Coordinate Geometry, Statistics, Probability
Physics	Motion, Light, Electricity, Magnetism, Force, Energy, Sound, Gravitation, Reflection, Refraction, Electric Current
Chemistry	Matter, Atoms, Molecules, Chemical Reactions, Acids and Bases, Metals and Non-Metals, Carbon Compounds, Periodic Classification of Elements
Bioscience	Cell Structure and Functions, Microorganisms, Nutrition, Reproduction, Biodiversity, Environment, Tissues, Heredity, Life Processes

Important Note:

- Core concepts listed in the table provide a foundational understanding.
- Each core concept is accompanied by numerous associated branch concepts and sub-concepts.
- Our sessions will cover these associated concepts in-depth.
- We will explain, demonstrate, and actively involve participants in exploring these concepts.
- Core concepts serve as a starting point, offering a glimpse into the breadth of topics covered.
- Each Subject shall be handled by relevant expert.
- Participants will gain a comprehensive understanding of mathematics, physics, chemistry, and bioscience.
- Our aim is to provide a rich learning experience by delving into the intricacies of each subject.

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Seyal Summer Science Retreat: Exploring the Universe Through Science and Mathematics

Embark on an unforgettable journey of discovery at the Seyal Summer Science Retreat, where participants delve into the fascinating worlds of physics, chemistry, bioscience, and mathematics. Through immersive experiences and hands-on learning, unlock the secrets of the universe and ignite your passion for scientific exploration.

Key Takeaways:

- 1. Comprehensive Understanding:** Dive deep into the realms of physics, chemistry, bioscience, and mathematics, gaining a comprehensive understanding of fundamental concepts that shape our world.
- 2. Hands-on Exploration:** Engage in captivating experiments, demonstrations, and activities that bring scientific principles to life, allowing for a richer understanding and appreciation of the natural world.
- 3. Problem-solving Proficiency:** Sharpen your problem-solving skills and analytical thinking through challenging activities and simulations, empowering you to tackle complex problems with confidence.
- 4. Real-world Applications:** Discover the practical applications of science and mathematics in everyday life, from technological innovations to environmental sustainability and healthcare advancements.
- 5. Collaborative Learning:** Collaborate with fellow participants in team-building exercises, group projects, and interactive discussions, fostering communication skills, teamwork, and cooperation.
- 6. Inquiry-based Investigation:** Cultivate curiosity and critical thinking through inquiry-based investigations, encouraging you to question, explore, and uncover solutions to scientific mysteries.

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7. Environmental Awareness: Develop a sense of environmental stewardship and ethical responsibility through discussions on sustainability, biodiversity conservation, and the ethical conduct of scientific research.

8. Career Exploration: Explore a myriad of career paths in science, technology, engineering, and mathematics (STEM), gaining insights into potential opportunities and igniting aspirations for future endeavors.

9. Personal Growth: Experience profound personal growth and self-discovery as you overcome challenges, expand your knowledge, and nurture a lifelong passion for learning and scientific inquiry.

10. Memorable Experiences: Create lasting memories and forge lifelong friendships with like-minded peers, as you immerse yourself in a supportive and enriching learning environment unique to Seyal Summer Science Retreat.

Join us at Seyal Summer Science Retreat, where curiosity knows no bounds, and the pursuit of knowledge leads to endless possibilities. Together, let's embark on a journey of exploration, discovery, and inspiration.