

QCSC 2025-26

Main Theme: “Understanding Science for Sustainable Living”

Focus: To encourage children to apply scientific methods to understand problems around them and develop sustainable solutions.

Aim: Foster scientific temperament, inquiry-based learning, and innovative thinking to solve real-life challenges affecting individuals, communities, and the environment.

Sub-theme 1: Promoting Preventive Healthcare for a Healthier Tomorrow

- **Focus:** Understanding common illnesses, nutrition, hygiene practices, and local health issues.
- **Aim:** Enable students to explore how science can help prevent diseases, promote wellness, and raise awareness about healthy practices in their communities.
- **Example Projects:**
 - Investigating the impact of hand hygiene in schools
 - Designing a low-cost water purifier using local materials
 - Studying the role of balanced diet and local food sources in child health

Sub-theme 2: Innovations in Marine Science and Coastal Sustainability

- **Focus:** Marine biodiversity, pollution, and technological interventions for sustainable marine ecosystems.
- **Aim:** Inspire students to study marine resources and propose innovative solutions for preserving ocean health and livelihoods of coastal communities.
- **Example Projects:**
 - Eco-friendly alternatives to single-use plastics affecting marine life
 - Simple models of oil spill removal
 - Observing effects of tides or salinity on aquatic life

Sub-theme 3: Mental Well-being in Children: Identifying and Addressing Early Challenges

- **Focus:** Early signs of stress, peer pressure, digital addiction, and emotional well-being.

- **Aim:** Encourage students to study mental health scientifically and propose peer-based or school-based strategies for improving well-being.
- **Example Projects:**
 - Survey on screen time and its effect on sleep or concentration
 - Creating a “mood tracker” journal to identify emotional patterns
 - Role of mindfulness or games in stress reduction

Sub-theme 4: Patterns and Numbers in Nature: Exploring Mathematics in the World Around Us

- **Focus:** Identifying mathematical concepts such as symmetry, ratios, geometry, and sequences in nature and daily life.
- **Aim:** Help students appreciate the presence of mathematics in natural forms and develop practical understanding of abstract concepts.
- **Example Projects:**
 - Fibonacci sequence in leaves, flowers, or pinecones
 - Mathematical patterns in honeycombs or animal footprints
 - Estimating population or resources using basic statistics

Sub-theme 5: Rocket Science and Space Navigation: Decoding the Science Behind Space Travel

- **Focus:** Basic principles of rocketry, space missions, satellite communication, and navigation systems.
- **Aim:** Introduce students to space science and encourage hands-on learning through models and simulations.
- **Example Projects:**
 - Building a simple water rocket to understand Newton’s laws
 - Mapping satellite paths using mobile apps or simulations
 - Demonstrating GPS functionality using school campus data

Sub-theme 6: Desert Farming: Growing Green in Harsh Climates

- **Focus:** Water conservation, hydroponics, vertical farming, and soil management in arid regions.
- **Aim:** Motivate students to discover sustainable agricultural practices suitable for desert regions like the Gulf.
- **Example Projects:**
 - Designing a hydroponic system using recycled materials
 - Studying effects of mulching in sandy soils
 - Comparing crop growth with greywater reuse

Sub-theme 7: Sustainable Waste Management in Gulf Countries

- **Focus:** Plastic reduction, recycling, composting, and waste-to-energy techniques.
- **Aim:** Inspire students to analyze waste issues and propose community-level solutions to reduce environmental burden.
- **Example Projects:**
 - Creating compost from school canteen waste
 - Designing a low-cost plastic sorting system
 - Awareness campaigns on recycling habits in households