

Syllabus



MATHEMATICAL KANGAROO COMPETITION

■ PRE-ECOLIER - 1 & 2 (GRADE- 1 & 2)

- Simple arithmetic operations with 1 digit and 2-digit numbers
- Distinguishing simple figures
- Time, clock. number of days in a week
- Number of months in a year

■ ECOLIER – 1 & 2 (GRADE- 3 & 4)

- Simple arithmetic operations with 1,2,3 and 4-digit numbers
- Recognizing geometric figures.
- A magic square with a sum of 15
- Time, clock. number of days in a week, number of months in a year
- Addition, subtraction, multiplication, division. intersection of sets
- Perimeter and area of a square, a rectangle

■ BENJAMIN- 1 & 2 (GRADE- 5 & 6)

- Addition, subtraction, multiplication, division.
- Magic squares
- Fractions and decimals.
- Clock, a calendar
- Perimeter of a polygon. area of a rectangle and a triangle
- Mathematical logic.
- Lines and rays on a surface
- A cube, a rectangular solid. Acute, right, and obtuse angles.

■ CADET – 1 & 2 (GRADE – 7 & 8)

- Operations on rational numbers
- Powers of natural numbers
- Angles: acute, right, and obtuse
- Equations, inequalities and systems of linear equations
- Area of a rectangle, a triangle and a circle
- Lines and rays on a surface
- Volume and surface area of geometric figures
- Supplementary angles, sum of angles in a triangle and in a quadrilateral
- Mathematical logic

■ JUNIOR – 1 & 2 (GRADE - 9 & 10)

- Operations on real numbers
- Functions, polynomials, equations, inequalities.
- Sequences of numbers
- Elements of combinatorics
- Synthetic & analytic plane geometry

■ STUDENT – 1 & 2 (GRADE – 11 & 12)

- Simple arithmetic operations with 1,2,3 and 4-digit numbers
- Operations on real numbers
- Functions, polynomials, equations, inequalities.
- Sequences of numbers
- Elements of combinatorics
- Synthetic & analytic plane geometry



Syllabus



INTERNATIONAL SCIENCE OLYMPIAD

■ EINSTEIN (Grade -1 & 2):

- Living and non-living things.
- Plant kingdom.
- The world of animals.
- Human body.
- Our basic needs.
- Good habits.
- Safety rules and good manners.
- Our family and surroundings.
- Air, water, weather, and seasons.
- Rocks and minerals.
- Light and shadow.
- The sun, moon, earth, and our surroundings

■ NEWTON (Grade -3 & 4):

- Living and non-living things.
- Plant parts & life.
- Animal's life and their eating habits.
- Birds.
- The human body.
- Matters.
- Our needs.
- Our houses and clothes.
- Safety and first aid.
- Force, work and energy.
- Solids, liquids, gases, and materials.
- Light, sound, and force.
- Rocks and soil.
- Our environment and pollution.
- Materials.
- Air, water, and weather.
- The solar system.
- Measurement standard units.

■ DARWIN (Grade -5 & 6):

- Living & non-living things.
- Transportation system in plants and animals.
- The building blocks of life.
- Food and health.
- Bones and muscles.

- Nervous system.
- Human excretory and blood circulatory system.
- Rocks and minerals.
- Soil.
- The earth, the moon and the sun.
- Our environment, natural disasters and pollution.
- Energy, electricity, magnet and simple machine.
- Our environment.
- Heredity and reproduction.
- Sorting and separation of materials into groups.
- Fibre to fabric.
- Fun with magnets.
- Light, shadow and reflection.
- Garbage in, garbage out.

■ FARADAY (Grade -7 & 8):

- Nutrition in plants and animals.
- Respiration in organisms.
- Transportation in plants and animals.
- Reproduction in plants.
- Acids, bases and salts.
- Changes around us.
- Weather, climate & adaptation of animals to climate.
- Winds, storms and cyclones.
- Natural resources and their conservation.
- Motion and time.
- Electric current and its effects.
- Crop production and management.
- Micro organisms-friend and foe.
- Synthetic fibres and plastics.
- Coal and petroleum.
- Heat, Combustion and flame.
- Adolescence and reproductive health.
- Reproduction in animals.
- Metal and non-metal.
- Force, pressure and friction.
- Sound.
- Chemical effects of electric current.
- Light and our universe.

Syllabus



INTERNATIONAL SCIENCE OLYMPIAD

■ EDISON (Grade -9 & 10):

- Nature of matter and behavior.
- Cell, tissues, organ and organ system.
- Biological diversity, health and diseases.
- Motion and force.
- Work, power and energy.
- Gravitation.
- Sound and sound energy.
- Physical resources.
- Bio-geochemical cycles in nature.
- Food & food production.
- Chemical reactions.
- Acids, bases, and salts.
- Metals and non-metals.
- Carbon compounds.
- Periodic classification of elements.
- Life processes.
- Control and coordination in animals and plants.
- Reproduction.
- Heredity and evolution.
- Light and light energy.
- Effects of the current.
- The magnetic effects of current.
- Sources of energy.
- Our environment.
- Management of natural resources.

■ FRANKLIN (Grade -11 & 12):

- Questions for the Grade 11 & 12 contest will be drawn from common topics in the CBSE, ISC, and IB curriculum.



Syllabus



HIPPO ENGLISH OLYMPIAD

- Questions will be drawn from school plus syllabus from different standard curriculum of national and international level.
- The official HIPPO website, <https://hippo-olympiad.org/sample-papers/>, contains sample questions, a detailed description of the three rounds' syllabus, and an online exam.

■ Examination Topics

Topic	A1	A2	B1	B2	C1	C2
Personal Details						
Family & Friends						
Hobbies & Leisure Activities						
Holidays						
Transport						
Weather						
Shopping						
Health & Exercise						
Education						
Work, Jobs & Careers						
Films, Media & Entertainment						
Books and Literature						
News, Lifestyles & Culture						
Environment						
Technology & Science						
Community and Society						
Law and Order						
Abstract topics						

LEGEND: ARE TOPICS COVERED IN THE RESPECTIVE GRADE / CATEGORY