

## Syllabus for Junior Science Bee

Source for Syllabus - <http://www.harcourtschool.com/>

<u>Subject</u>	<u>Topic</u>	<u>Sub-topic</u>	<u>Detail / Expectation / Science Vocabulary</u>
Earth & Space	Geology	Landforms	Plains; Islands; Barrier Island; Peninsula; Mountains; Valleys; Plateau, Cliff; Bay; Canyon; Grand Canyon; Glaciers; Mesa; Bank; Coast; Delta; Estuary; Lake; Pond; River; Hill;
Earth & Space	Geology	Rocks & Minerals	Core; Mantle; Crust; Volcanoes; Magma; Lava; Geysers; Earthquakes; Metamorphic; Igneous; Sedimentary Rocks; Soil Types; Sandy; Clay; Topsoil; Humus; Loam; Boulder; Bedrock; Role of Earthworms; Erosion & Weathering;
Earth & Space	Geology	Fossils	How Fossil Forms; Paleontologist; Reconstruct; Dinosaurs - Names & Features; Extinct; Ammonite; Fossils in Sedimentary Rocks; Trilobites;
Earth & Space	Meteorology	Earth's Weather	Weather; Weather Map; Atmosphere; Water Cycle; Evaporation; Condensation; Precipitation; Rivers; Estuary; Water Vapor; Thermometer; Temperature; Clouds; Stratus; Cirrus; Cumulus; Cumulonimbus; Meteorologist; Drought; Underground water; Storms; Tsunamis; Wind; Wind Vane; Anemometer;
Earth & Space	Environment	Conservation	Conserve Resources; Reuse; Reduce; Recycling; Renewable Resource; Inexhaustible Resource; Nonrenewable Resource;
Earth & Space	Astronomy	Solar System	Sun, Energy; Solar; Gravity; Rotation; Axis; Revolution; Orbit; Seasons; Moon; Moonlight; Crater; Constellation; Planets; Tilt of Earth; Lunar Eclipse; Solar Eclipse; Phases of Moon; Stars; Telescope; Asteroid; Comet;
Life Science	Life's Diversity	Living Organisms	Living vs Non-living; Animals vs Plants; Characteristics of Living Things;
Life Science	Life's Diversity	Animals	Identifying Animals; Classifying Animals; Mammals, Reptiles; Amphibians; Fish; Birds; Insects, Life cycle; Egg; Larva; Pupa; Adult; Complete Metamorphosis; Incomplete Metamorphosis; Nymph; Spiders & Webs; Gills vs Lungs; Animal Extremes; Longest; Biggest; Extinct; Endangered Species; Inherit; Trait; Scale; Animal Sounds; Laying Eggs; Birth to Live Young;
Life Science	Life's Diversity	Plants	Parts of Plant; Flower; Stem; Leaves; Roots; Fruits & Seed; Animals Disperse Seeds; Seed Coat; Germination; Seedling; Kinds of Plants; Photosynthesis; Sunlight; CO <sub>2</sub> ; Oxygen; Sugar; Deciduous; Evergreen; Chlorophyll; Cactus; Tap Root; Fibrous Root;
Life Science	Life's Diversity	Adaptation & Behavior	Camouflage & Mimicry; Hibernate; Plant Adaptations; Impact of Weather on Plants; Adaptation of Beak; Wing;
Life Science	Human Body	Different Body systems	Permanent Teeth, Skeleton & Bones; Muscles; Heart; Lungs; Heart Rate; Digestion; Saliva; Stomach; Intestine; Brain; Nerves; Sensory Organs; Parts of Eye; Parts of Ears; Blood; Healthy Food; Vaccine; Body Care; Cleanliness; Exercise; Germs; Illness; Prevention;
Life Science	Ecology	Ecosystem	Habitat & Community; Food Web; Food Chain; Environment; Ecosystem; Population; Salt Water; Fresh Water; Producer; Consumer; Decomposer; Energy Pyramid; Herbivore; Omnivore; Carnivore; Scavenger; Interaction with Environment;
Life Science	Ecology	Biomes	Examples of Plants & Animals; Desert; Arctic Habitat; Pond Habitat; Woodland Forest; Wetlands; Coral Reef;
Physical Science	Matter	States of Matter and Change	Matter; Physical Properties; Mass; Solid; Liquid; Gas; Hardness; Measuring Solids and Liquids; Mixtures; Reversible; Irreversible; Combustion; Physical Change; Chemical Change;
Physical Science	Matter	Chemistry of Matter	Composition; Atoms; Elements; Molecules; Compounds;
Physical Science	Matter	Measurement	Ruler; Balance; Gram; Kilogram; Inches; Centimeters; Feet; Meters; Pounds; Ounces; Gallon; Quarts; Minutes; Hours; Seconds; Temperature; Thermometer;

Physical Science	Force & Motion	Force & Motion	Force causes Motion; Why things Fall; Gravity; Measuring Motion; Speed; Work; Simple Machines; Inclined Plane; Wheel & Axle; Lever; Screw; Wedge; Pulley; Example - Doorknob; Surface Tension; Water Strider; Friction; Potential Energy; Kinetic Energy;
Physical Science	Energy	Electricity & Magnetism	Magnets; N pole; S pole; Attract; Repel; Compass; Circuit; Closed circuit; Current; Battery; Switch; Light Bulb; Conductors; Insulators; Electrons; Electromagnet; Static Electricity; Example - Wool; Balloon; Comb;
Physical Science	Energy	Sound Energy	Sound; Vibration; Loudness; Pitch; Sonar; Music; Hearing Sounds; Making Sounds; How Sounds Travels;
Physical Science	Energy	Light Energy	Mirror; Reflection; Refraction; Absorption; Shadow; Transparent; Translucent; Opaque; Spectrum; Prism;
Physical Science	Energy	Thermal Energy	Heat & Evaporation; Conduction of Heat; Condensation; Insulators; Kinetic vs Potential Energy; Convection; Radiation;
Science Inquiry	Scientific Method	Scientific Method	Hypothesis; Experiment; Observation; Bar Graph; Line Graph; Data Table; Conclusion; Fact vs Opinion; Evidence;
Science Inquiry	Famous Scientists	Biographies	Thomas Edison; Louis Pasteur; Rachel Carson; Edward Jenner; Isaac Newton; Galileo Galilei;
Science Inquiry	Measurement	Measurement	Measuring; Organize data; Mass; Length; Temperature; Weight; Bar Graph; Pictograph;
Science Inquiry	Measurement	Measurement Units	Distance; Mass; Volume; Temperature;

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