

2015 GREEN GENERATION–TRAINING HANDOUT

Overview of Competition

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DISCLAIMER - This presentation was prepared using draft rules. There may be some changes in the final copy of the rules. The rules which will be in your Coaches Manual and Student Manuals will be the official rules.

- **BE SURE TO CHECK THE 2015 EVENT RULES** for EVENT PARAMETERS.

TRAINING MATERIALS:

- **Training Power Point** presents an overview of material in the training handout
- **Training Handouts** presents introductory topic content information for the event
This is a general training handout – there are also special handouts for each part of the competition including separate handouts for Freshwater and Estuary Ecology
- **Sample Tournament** has sample problems with key
- **Event Supervisor Guide** has event preparation tips, setup needs and scoring tips
- **Internet Resource & Training Materials** are available on the Science Olympiad website at www.soinc.org under Event Information.
- **A Biology-Earth Science CD, a Green Generations CD (NEW 2015)** and the **Division B and Division C Test Packets** are available from SO store at www.soinc.org

THE COMPETITION:

Green Generation is designed for a two year rotation – the first year (2015) will cover aquatic issues, air quality issues and climate change while the second year (2016) will cover terrestrial issues and population growth issues. **TRAINING HANDOUTS ARE AVAILABLE FOR EACH SECTION**

a. Part 1: Review of the General Principles of Ecology

- i. General Principles of Ecology - food webs and trophic pyramids, nutrient cycling, community interactions, population dynamics, species diversity and indicator species (2015 and 2016)
- ii. Overview of Aquatic Environments – freshwater, estuaries, marine (2015)
- iii. Overview of Terrestrial Environments – forests, grasslands, deserts, tundra (2016)

b. Part 2: Problems resulting from human impacts on the quality of our environment

- i. Aquatic Environmental Issues – Water pollution, Ocean Dead Zones, Water Diversion, Overfishing (2015)
- ii. Air Quality Issues – Acid rain, Air Pollution, Nuclear Pollution (2015)
- iii. Climate Change – Effects on Plants, Animals, and Ecosystems, Greenhouse Effect, and Ozone Depletion (2015)
- iv. Terrestrial Environment Issues – Desertification, Deforestation, Soil pollution, Waste Disposal, Mining (2016)
- v. Population Growth Issues – Habitat Destruction, Farming Practices, Fertilizers & Pesticides (2016)

c. Part 3: Solutions to reversing/reducing human impacts that harm our environment

- ii. Legislation and Economic Opportunity for Solving Problems (Div. C) (2015 and 2016)
- iii. Sustainability Strategies – Environmental Stewardship of Aquatic Ecosystems (2015)
- iv. Bioremediation Strategies (2015)
- v. Sustainability Strategies – Environmental Stewardship of Terrestrial Ecosystems (2016)
- vi. Nonrenewable, Renewable, and Alternate Energy Sources (2016)
- vii. Waste Management (2016)