The Yuba Environmental Science Charter Academy
(YES Charter Academy)

“YES to Excellence in Education”

CHARTER PETITION
Appendix 1 - Environmental Education
Curriculum Samples and Activities

Prepared in compliance with the terms, conditions, and requirements of The Charter Schools Act, Education Code Section 47600, et seq., and related statutes
I. Appendix -- Activities

A. Transitional Kindergarten

- self-awareness
- empathy and understanding of others
- appropriate interactions and responsibility with peers and adults
- beginning reading skills
- vocabulary development
- recognition of concepts of print and alphabet and word recognition
- literacy interest and response
- beginning writing skills such as grasp, body position, and use of a range of tools
- listening and following directions
- communication with others
- develop beginning number sense
- sort and classify objects, identify patterns
- beginning measurement concepts
- construct and identify shapes
- begin to develop problem solving strategies
- practice and develop movement, balance, sense of space, direction, and body awareness
- notice, respond, and engage with visual arts, music, drama, and dance
- practice and learn about basic hygiene, oral health, wellness and nutrition habits, and safety

B. KINDERGARTEN

**Ecology Awareness**

- Nature walks, specimen collecting and cataloguing
- Caring social relationships with classmates
- Caring for the environment (simple planting)
- Folk tales, animal stories
- Simple painting, wet work, and nature printmaking
Conservation
- Sharing materials and playthings
- Responsibility to conserve at home (water, lights, etc.)
- Reuse of found objects for arts and crafts

Stewardship
- Recycling of paper and other materials at school. Interdependence/Natural Balance
- Study of animals and their foods
- Growing and eating simple plants (sprouts, e.g.)
- Classroom pets
- Talks about appropriate treatment of animals

Pollution
- Music and sound activities that explore noise
- Quiet times and activities in classroom day
- Responsibility for clean-up

Citizenship Education
- Talk about feelings
- No hitting
- Use language to resolve conflicts
- Learn about voting in class
- Discuss and assist a shelter or other agency that assists poor children

Health and Fitness
- Reinforcing routines
- Hygiene, hand washing, etc
- Studying, grouping foods (by collages, tastings, visiting the gardens, the grocery store, a dairy farm)
- Gross motor skills--group play, noncompetitive games

C. GRADES 1/2

Ecology Awareness
- Observation and study of neighborhood animals
- Observe animal habitats
- Folk tales
- Earth creation stories of other lands
- Visits to and from community caretakers (gardeners, zoologist or animal keepers, farmers)
- Simple gardening, group and individual

Early journaling
- Logging plant growth with measuring sticks
Individual and group reading and discussions of children's literature

**Conservation**
- Discuss human habitats in various parts of the planet
- Examine our own habitats
- Mapping, measuring
- Observe and catalogue differences between city and farm habitats, through field trips and children's literature

**Stewardship**
- Making bird feeders
- Composting leftover food, scraps. "Adopting" and observing trees

**Interdependence**
- Plant and animal studies--animal communities, worm boxes, ant farm
- Visiting guests who work in the neighborhood
- Sharing community projects (garden, e.g.)

**Pollution**
- Study the water cycle
- How does water get to our homes?
- Visit and observe aquatic life in the neighborhood
- Study air quality
- Collect a particle plate
- Participate in clean-up activities

**Citizenship**
- Discuss and devise classroom rules
- Agree on common rules for conflict
- Learn music and folklore about peace
- Learn and practice manners--how we treat each other

**Health and Fitness:**
- Discuss microorganisms, observe pond water in microscope
- Discuss viruses and staying healthy
- Reinforce personal hygiene rules and routines
- Make healthy classroom snacks together
- Use foods grown by our class

**D. GRADES 3/4:**

**Environmental Awareness**
- Extensive outdoor education, travel to other ecological sites
- Geography and map skills--mapping from the immediate neighborhood of the school on out
- Local folklore, local history introduced through field visits, interviews
Responsibility for small, classroom animals
- Logging and graphing animal inputs, outputs, growth
- Study of light properties and experimenting with light

**Conservation**
- Native American studies/building of models, replica teepee with appropriate artistic decoration by students
- Habitat studies: animals of woodlands and wetlands
- Current events/debates are introduced
- Science investigations, individual projects are introduced
- Folklore, music, poetry and arts focusing on conservation

**Stewardship**
- Composting for the Children's Garden
- Making paper
- Surveying solid waste produced at home and school

**Interdependence**
- Learning in detail the wetlands ecosystem
- Building models of the water cycle

**Pollution**
- Mapping water flow systems, rain forests, wetlands and foothills
- Science investigations
- Effects of pollution upon growth and health

**Citizenship**
- Conflict resolution skills through peer mediation.
- Learning community history through field work, interviews with elected officials and leaders.
- Writing advocacy letters about issues of interest

**Health and Fitness**
- Role plays and group discussions of substance abuse, including tobacco and other drugs.

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**E. GRADERS 5/6:**

**Ecology Awareness**
- Overnight trips to outdoor education sites.
- Camping, orienteering, and woodcraft.

**Conservation**
- Research on endangered species.
- Wind and solar energy
Model-building projects.
- Farming in other cultures and countries.
- U.S. agriculture unit.
- Where and how is food produced in various regions of the U.S.
- History of U.S. farming
- Farming’s role in U.S. history (i.e. cotton, tobacco, slavery, Westward Expansion, and migrant labor) as it has moved economy forward.
- Gather histories of local farms and other institutions, working in groups.
- Participate in reclamation/restoration projects and other service projects initiated and planned by students.
- Use Native American folk and other tales of the natural world to explore the notion of interdependency.

Stewardship
- Design and coordinate school recycling projects.
- Visit waste water treatment plant, local landfill. Interdependence
- Use composted materials appropriately.
- Bury and chart degradation of selected materials--disposable diapers, plastic and paper products, etc.
- Raise and use earthworms in class garden.

Pollution
- Visit and analyze water from local rivers and streams.
- Use and collect data from use of various filtration materials to purify water.
- Invent pollution abatement devices.
- Create an advocacy or advertising campaign about a specific pollution issue.

Citizenship
- Study methods of dispute resolution.
- Examine the U.S. Constitution and Bill of Rights, and the Emancipation Proclamation.
- Design a classroom Bill of Rights.
- Take year-long responsibility for a group service project in the wider community.
- Discuss and engage in open-ended debate (including formal debate skills) environmental controversies (such as animal rights)
- Mentor, coach and tutor younger students.

Health and Fitness
- Drug education: Tobacco and other drugs are studied for their physiologic effects upon the human organism.
- Critical analysis of alcohol and tobacco advertisements.
- Body images: Critical analysis of portrayal of boys, girls, men and women on TV.
o Discussions, collection of examples of advertisements aimed at marketing products to boys and girls.

F. **GRADES 7/8:**

**Ecology Awareness**
- Overnight trips to outdoor education sites.
- Camping, orienteering, and woodcraft.

**Conservation**
- Research on endangered species and genetic engineering.
- Wind, geothermal, and solar energy
- Model-building projects.
- Farming in other cultures and countries.
- U.S. agriculture unit.
- Where and how is food produced in various regions of the world.
- History of Earth’s geography and place in the Universe
- Historical development and discovery of chemicals and elements, working in groups.
- Participate in reclamation/restoration projects and other service projects initiated and planned by students.
- Use cultural history of world nations and natural resources of the Earth to explore the notion of interdependency.

**Stewardship**
- Design and coordinate school recycling projects.
- Visit waste water treatment plant, local landfill. Interdependence
- Use composted materials appropriately.
- Bury and chart degradation of selected materials--disposable diapers, plastic and paper products, etc.
- Raise and use earthworms in class garden.

**Pollution**
- Visit and analyze water from local rivers and streams.
- Use and collect data from use of various filtration materials to purify water.
- Invent pollution abatement devices.
- Create an advocacy or advertising campaign about a specific pollution issue.
- Study Currents and Waves and how air and water is moved across Earth
- Collect and chart weather data

**Citizenship**
- Study methods of dispute resolution.
- Examine the U.S. Constitution and Bill of Rights, and the Emancipation Proclamation.
- Design a classroom Bill of Rights.
Chart the progression of Medieval and Ancient Civilization linked to resource availability and natural occurrences/geography

- Take year-long responsibility for a group service project in the wider community.
- Discuss and engage in open-ended debate (including formal debate skills) environmental controversies (such as animal rights)
- Mentor, coach and tutor younger students.
- Participate in Job Shadow week within the community to explore career paths

Health and Fitness

- Drug education: Tobacco and other drugs are studied for their physiologic effects upon the human organism.
- Critical analysis of alcohol and tobacco advertisements.
- Body images: Critical analysis of portrayal of boys, girls, men and women on TV.
- Discussions, collection of examples of advertisements aimed at marketing products to boys and girls.