



**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

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- 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.

E. GRADES 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.



- 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.

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- 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.