

Creating Environments That Sustain Children, Staff & Our Planet

Ania Shapiro, AIA



Vicki Stoecklin, MS ,Ed



This presentation is available
for download as a PDF file at:

www.whitehutchinson.com/children/NAEYC2006

Sustainable Practices

Actions that sustain human needs and improves the quality of life while making efficient and environmentally responsible use of natural, human and economic resources

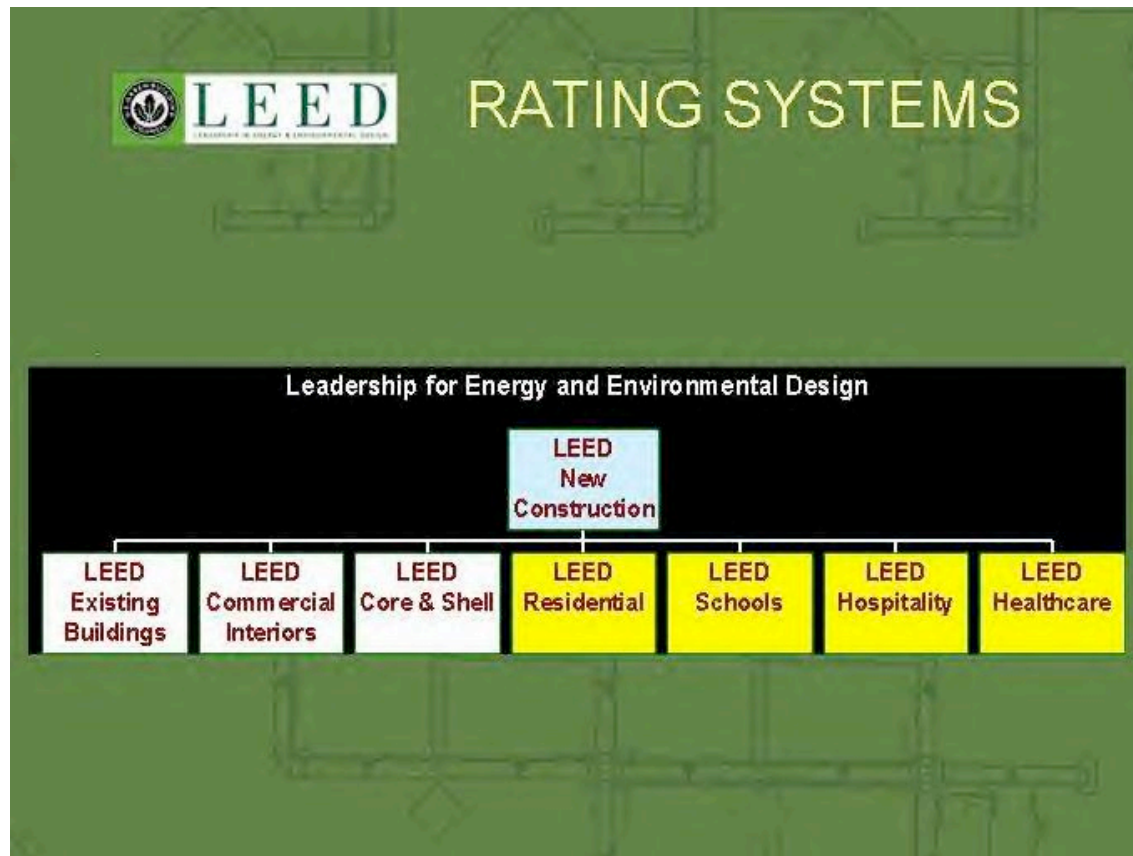
Green Building

Construction, using any various methods, that promote resource conservation (materials, energy, water) and reduces environmental impact while keeping operational costs low. Lifecycle of building is considered

LEED Certification

- leadership in energy & environmental design
- voluntary four-level rating
- rated on sustainable site, water efficiency, energy, materials, resources and indoor air quality
- green building construction costs have dropped

All groups are coming together for green



Construction costs

- Decades ago green construction could cost as much as 20%, but it is down to 1-9%
- Energy savings



Support for green

- Federal government
- 15 states and 46 cities require new public buildings to meet LEED
- Many states and cities offer incentives & fast tracking
- LEED has a school accreditation
- Green flag program helps schools become healthier

Energy savings



- 1,200 lbs nitrogen oxide
- 1,300 lbs sulfur dioxide
- 585,000 lbs carbon dioxide
- 150 lbs coarse particulate matter
- www.cap-e.com

Do you know where your trash goes?

Each year Americans throw away enough office and writing paper to build a 12-foot wall from NY to CA



Where is ECE in the green movement?



Noticeably absent!!!!!!

Where do YOU fit?

Different shades of green



Your inspiration

“Never doubt that a small group of thoughtful, committed citizens could change the world. Indeed it’s the only thing that ever has”



Margaret Mead

Four ways children learn values

- Through daily interaction
- Through example
- Their exposure to larger world
- Our explanations of the world



Connections

Indoor environment is
connected to the
outdoor environment
and both are connected
to children's health



Strong indicators that exposure to environmental chemicals have contributed to increased childhood disease

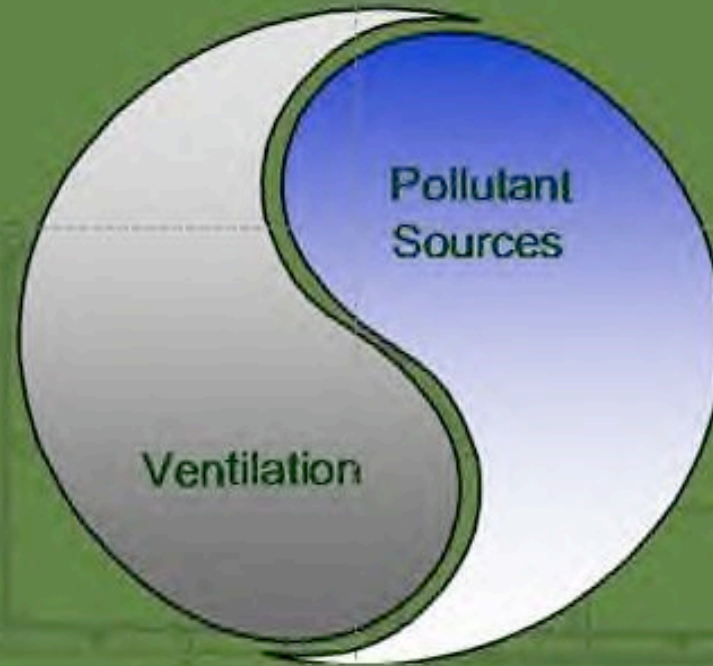
- Autism rates in California went from 2,778 in 1987 to 10,360 in 1998 and 18,460 children in July 2002
- Childhood learning disabilities and hyperactive behavior have soared
- Childhood cancer under age of 15 has increased by 32% in last two decades
- Asthma afflicts nearly 4.8 million American children; has increased 160% past four years
- Source--CHEJ--child proofing our communities

Indoor air quality

EPA has determined that indoor air quality is one of their four top environmental concerns in United States



Two Primary Factors Control Indoor Air Pollution



All of these affect indoor air quality

Less is More...



- VOC sources are numerous:
- Office furniture
- Wall covering, floor covering
- Paints, adhesives, sealants
- Ceiling tile
- Copiers, printers, computers
- Art supplies, science labs, shop class
- Consumer products, cleaning/maintenance chemicals
- Mold VOCs

Biophilia vs. biophobia

Based on work of
Dr. Edward Wilson,
Harvard biologist



Losing touch

Children of all cultures are losing contact with the natural world - Danger! - *Nature deficient*



Where would you want to be?

National Wildlife Federation has certified more than 2,000 school yard habitats, while child care centers continue to have less green space than a Wal-Mart parking lot



Nature deficient?

How will children learn to respect and care for Mother Earth if they are not given direct opportunities to interact with nature?



Children need plants!



Outdoor areas should stimulate all the senses and provide for a variety of activities to meet children's multiple intelligences

Be a good role model for
children




Reduce:

- Less really is more
- Use less water by changing sinks and toilets
- Use low maintenance plants materials
- Buy products locally to cut down on transportation costs

Reuse:

- Collect water in rain barrels
- Find new ways to use old equipment
- Donate what you don't need to other programs

Recycle

- Buying 100% recycled paper can reduce energy costs by 44%, decrease greenhouse emissions by 37%, cut water usage by 50% and practically eliminate wood use
- Use a worm compost 
- Set up a recycle bin program

Re-buy

- Purchase green power if available
- Select furniture from recycled content
- Re-buy paper towels and toilet paper from recycle contents - no chlorine bleach

Support manufacturers whose values match yours



Protecting children and the environment is everyone's job

- Choose vendors that only use green products
- Buy green furniture
- Inquire about the types of cleaning products used in your center & switch to a more natural method
- Avoid carpets where possible since they hold dust and chemicals
- Support policies that protect children and the environment
- Educate parents about these issues
- Use these resources to make a change!
- Be a good role model