



# Importance of outdoor play and nature-based learning

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# Introduction

- ❖ Children today spend more time indoors than ever before.
- ❖ Outdoor play and nature-based learning are critical for physical, emotional, cognitive, and social development.
- ❖ This presentation highlights the benefits and scientific backing of outdoor learning.



# Objectives

- ▶ To illustrate benefits of outdoor learning and nature based learning
- ▶ To describe nature based learning methods and strategies
- ▶ To identify global models of outdoor learning
- ▶ To discuss role of educator in outdoor learning
- ▶ To identify barriers of outdoor learning
- ▶ to illustrate long term impact of outdoor learning in adulthood
- ▶ to encourage parents and schools on nature-based learning

# Benefits of outdoor learning



Cognitive and Academic Benefits



Physical Health Advantages



Benefits for Immunity



Emotional and Mental Wellbeing



Connection to Brain Development



Building Environmental Awareness and social development



Attention Restoration



# Cognitive and Academic Benefits

- ❖ Improves attention span and focus (especially for children with ADHD).
- ❖ Encourages curiosity, creativity, and problem-solving.
- ❖ Enhances academic outcomes through experiential learning.





# Physical Health Advantages

- ❖ Reduces obesity and improves motor skills.
- ❖ Strengthens immunity and reduces risks of chronic illness.
- ❖ Encourages healthy sleep and appetite.





# Immunity and the Physical Environment

## Nature and Immune System Development

### *How Outdoor Environments Support Immunity?*

- ❖ Regular exposure to natural outdoor environments strengthens children's immune systems.
- ❖ Contact with soil, plants, and diverse microbiota helps build a more **resilient immune response**.
- ❖ Children growing up in “green” settings show **lower rates of asthma, allergies, and autoimmune conditions**.
- ❖ The diversity of microbes outdoors promotes **healthy gut and skin flora**.



# Immunity and the Physical Environment



## Sunlight, Vitamin D & Immune Function and Natural Immunity

- ❖ Outdoor play increases sunlight exposure, which is vital for Vitamin D synthesis.
- ❖ Vitamin D helps activate T cells, which are crucial for fighting infections.
- ❖ Deficiency in Vitamin D is linked to weaker immune responses and increased respiratory infections.



# Emotional and Mental Well-Being

- ❖ Reduces stress, anxiety, and depression.
- ❖ Enhances mood and emotional resilience.
- ❖ Boosts confidence and independence.



# Connection to Brain Development



- ❖ Outdoor play supports sensory integration and neural pathway development.
- ❖ Multisensory experiences stimulate areas responsible for executive function and self-regulation.



# Support for Children with Special Needs

- ❖ Nature reduces overstimulation and helps regulate behavior.
- ❖ Sensory-friendly environments offer a non-threatening, calming context for engagement.





# Social Skills and Collaboration

- ❖ Promotes teamwork, communication, and empathy.
- ❖ Builds leadership and conflict resolution skills.
- ❖ Encourages inclusive and imaginative play.





# Building Environmental Awareness

- ❖ Instills a sense of stewardship and respect for nature.
- ❖ Promotes sustainable thinking and eco-conscious behavior from a young age.



# Time in Nature and Attention Restoration

- ❖ Nature exposure restores directed attention and reduces mental fatigue.
- ❖ Even short breaks in green spaces improve focus and learning outcomes.





# Practical application

- A study conducted in Brevard Country, Florida, on fourth-grade public school students to investigate children's affective attitude toward nature.

suggests four dimensions in the children's connection to nature index: (a) enjoyment of nature, (b) empathy for creatures, (c) sense of oneness, and (d) sense of responsibility.

reported that children's connection to nature

, Their previous experience in nature

, Their perceived family value toward nature

And Their perceived control influence:

- Their interest in performing environmentally friendly behaviors.
- Their intention to Participate in nature-based activities in the future

*(Cheng et al., 2020)*

# Out-door learning strategies and methods

## **Curriculum Integration**

Embed outdoor activities into standard subjects (e.g. biology).

## **Inquiry-Based Learning**

Encourage students to ask questions, observe nature, and investigate.

## **Place-Based Projects**

Focus learning on the local environment and community issues

# Out-door learning strategies and methods

## **Sensory Exploration**

Use the five senses to explore natural surroundings  
e.g :Sensory walks to identify textures, sounds, and smells in the environment.

## **Outdoor Storytelling and Literacy**

Conduct reading, storytelling, or creative writing sessions in natural settings like Read a story under a tree, then write an alternate ending inspired by surroundings.

## **Nature Journaling**

Encourage observation, reflection, and creativity through outdoor journaling  
eg: sketch and describe insects, weather patterns, or landscapes.



# Out-door learning strategies and methods

## **Adventure and Play-Based Learning**

Use free play and physical activity to build confidence and resilience  
like building a shelter or scavenger hunts in a forest

## **Seasonal and Weather-Responsive Learning**

Tailor activities to seasonal changes and weather conditions  
eg: Measure temperature changes, observe migration, or study snow and rain patterns.

## **Environmental Stewardship Activities**

Engage students in environmental protection tasks such as starting a recycling campaign

## **Collaborative Outdoor Learning**

Use group-based tasks that require cooperation and communication like outdoor science experiments

# Role of Educators in Outdoor Learning

- ❖ Teachers act **as facilitators, guiding discovery rather than delivering content.**
- ❖ This requires training in risk assessment and curriculum adaptation.



# Barriers to Outdoor Play

- ❖ Urbanization,
- ❖ screen addiction,
- ❖ parental fear of injury or strangers.
- ❖ Lack of safe spaces and insufficient school resources.
- ❖ Access issues.
- ❖ Physical Disabilities e.g. lack of mobility.
- ❖ Decreased motivation and limited concentration



# Global Models of Outdoor Learning

- ❖ **Scandinavia:** Forest Schools in Denmark, Norway, and Sweden.
- ❖ **Germany:** Waldkindergarten (forest kindergartens).
- ❖ **UK:** Outdoor curriculum is part of early years education.



Acorn forest school, Denmark.



# Long-Term Impact into Adulthood

- ❖ Nature experiences in childhood are linked to lifelong environmental stewardship.
- ❖ Increases likelihood of outdoor recreation and mental health stability in adulthood.



# Call to action

- ❖ Advocate for outdoor education policies.
- ❖ Support green space development in urban planning.
- ❖ Educate parents about nature's role in child development.



# Conclusion



- ❖ Outdoor play is not a luxury—it's a necessity for holistic development.
- ❖ Nature-based learning enhances education, health, and environmental responsibility.
- ❖ Let's reconnect children with nature for a better future.



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