

# **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 County, 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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■ **Obrigado**

A large, colorful word cloud centered around the words 'Thank You' in various languages. The word 'Thank You' is repeated in many different languages, including English, Spanish, French, German, Italian, Portuguese, Dutch, Swedish, Danish, Norwegian, and others. The words are rendered in various colors and sizes, creating a dense and vibrant composition. The background is a light, textured surface.