

# NATURE CAN IMPROVE HEALTH AND WELLBEING

Spending time in nature provides children with a wide range of health benefits.

## HEALTHY BABIES

Nature exposure for mothers can promote:



**NATURE CONTACT IS**  
especially beneficial for mothers of lower education and socio-economic levels<sup>2,3,4</sup>

## HEALTHY EYES AND VITAMIN D LEVELS

Time spent in bright sunlight can:



## INCREASED PHYSICAL ACTIVITY

Access to parks and greenspace can foster:

**INCREASED PHYSICAL ACTIVITY<sup>11,12</sup>**

**REDUCED RISK OF OBESITY<sup>13</sup>**

## OUTDOOR PLAY

increases the likelihood that girls will remain active into adolescence<sup>9</sup>

Children are better able to cope with stress when they live near trees and other greenery.<sup>15, 16</sup>

## SOCIAL-EMOTIONAL WELLBEING

Learning in nature can support:



### SUPPORTING RESEARCH

<sup>1</sup>Dzhambov et al. (2014). Association between residential greenness and birth weight: Systematic review and meta-analysis. *Urban For Urban Gree*, 13(4), 621-629. <sup>2</sup>Markevych et al. (2014). Surrounding greenness and birth weight: Results from the GINplus and LISplus birth cohorts in Munich. *Health Place*, 26, 39-46. <sup>3</sup>Dadvand et al. (2014). Inequality, green spaces, and pregnant women: Roles of ethnicity and individual and neighbourhood socioeconomic status. *Environ Inter*, 71, 101-108. <sup>4</sup>Agay-Shay et al. (2014). Green spaces and adverse pregnancy outcomes. *Occup Environ Med*, 71(8), 562-9. <sup>5</sup>French et al. (2013). Time outdoors and the prevention of myopia. *Exp Eye Res*, 114, 58-68. <sup>6</sup>He et al. (2015). Effect of time spent outdoors at school on the development of myopia among children in China. *JAMA*, 314(11), 1142-1148. <sup>7</sup>Dolgin (2015). The myopia boom: Short-sightedness is reaching epidemic proportions. Some scientists think they have found a reason why. *Nature*, 519, 276 - 278. <sup>8</sup>McCurdy et al. (2010). Using nature and outdoor activity to improve children's health. *Curr Prob Pediatr Adolesc Health Care*, 40(5), 102-117. <sup>9</sup>Pagels et al. (2014). A repeated measurement study investigating the impact of school outdoor environment upon physical activity across ages and seasons in Swedish second, fifth and eighth graders. *BMC Public Health*, 14(1), 803. <sup>10</sup>Almanza et al. (2012). A study of community design, greenness, and physical activity in children using satellite, GPS and accelerometer data. *Health Place*, 18(1), 46-54. <sup>11</sup>Hartig et al. (2014). Nature and health. *Annual Rev Publ Health*, 35, 207-28. <sup>12</sup>Christian et al. (2015). The influence of the neighborhood physical environment on early child health and development: A review and call for research. *Health Place*, 33, 25-36. <sup>13</sup>Wolch et al. (2011). Childhood obesity and proximity to urban parks and recreational resources: A longitudinal cohort study. *Health Place*, 17(1), 207-214. <sup>14</sup>Duncan et al. (2014). The effect of green exercise on blood pressure, heart rate and mood state in primary school children. *Int J Environ Res Public Health*, 11(4), 3678-3688. <sup>15</sup>Wells & Evans (2003). Nearby nature: A buffer of life stress among rural children. *Environ Behav*, 35(3), 311-330. <sup>16</sup>Corraliza et al. (2012). Nature as a moderator of stress in urban children. *Procedia - Soc Behav Sci*, 38, 253-263. <sup>17</sup>Chawla et al. (2014). Green schoolyards as havens from stress and resources for resilience in childhood and adolescence. *Health Place*, 28, 1-13. <sup>18</sup>Roe & Aspinall (2011). The restorative outcomes of forest school and conventional school in young people with good and poor behavior. *Urban For Urban Gree*, 10, 205-212. <sup>19</sup>Younan et al. (2016). Environmental determinants of aggression in adolescents: Role of neighborhood green space. *J Am Acad Child Adolesc Psychiatry*, 55(7), 591-601. <sup>20</sup>Chawla (2015). Benefits of nature contact for children. *J Plan Lit*, 30(4), 433-452.