

A Classroom in a backpack

A new way to bring nature to students



A way to make field trips easier



A Classroom in a backpack

Grunnskóli Hornafjarðar – The Elementary school of Hornafjörður is a school with around 300 pupils, located in the municipality of Hornafjörður, in the southeast of Iceland. The school district is one of the largest in all of Iceland and stretches from Skeiðarársandur in the west to Hvalnesskriður in the east. Just less than 200 km. are from one end to the other and students come from all over the area. Some parts of that area are a part of Vatnajökulsþjóðgarður, the biggest nature reserve in Iceland.

One of the fundamental goals of the school is to introduce to its students, this area with all its variety. Because of the long distances the best way to achieve this is to use field trips to chosen destinations. These destinations are chosen especially to introduce to the students the roots they come from, the nature, its history and culture.

The length of the field trips, vary from few hours in to the schools surroundings, to 2-3 days, where a larger area is explored. The trips also have different themes and are built up in different ways, depending on the age group, and the location of the trip.

There are many different arguments that support the use of field trips. In the National Curriculum for Primary schools, trips into nature are recommended and field trips are especially mentioned as a recommended form of visit. In the curriculum for natural science it says: "Field trips are especially necessary in the study of natural science, where as in the society, the surroundings and the nature, we find the reality that children are learning about and need to know and understand. Therefore it is essential that schools integrate outdoor learning to their curriculum so students will get the opportunity to get to know and enjoy their closest environment and at the same time strengthen their respect for that same environment." (Aðalnámskrá Grunnskóla: Náttúrufræði og umhverfismennt: 9)

Field trips and field studies have also been researched a lot. Here below are some interesting results from such studies.

- Children with the symptoms of ADHD (Attention Deficit Hyperactivity Disorder) are better able to concentrate after contact with nature (Taylor 2001)
- Children with views of and contact with nature score higher on tests of concentration and self – discipline. The more exposure to nature, the better the scores. (Wells 2000)
- Children who play regularly in natural environments show more advanced motor fitness, including coordination, balance, and agility, and they are sick less often. (Fjortoft 2001)
- When children play in natural environment, their play is more diverse with imaginative and creative play that fosters language and collaborative skills. (Taylor et al. 1998, Fjortoft and Sageie 2000)

- Exposure to natural environments improves children's cognitive development by improving their awareness, reasoning, and observational skills (Pyle 2002)
- Nature buffers the impact of life stress on children and helps them deal with adversity. The greater the amount of nature exposure, the greater the benefits. (Wells 2003)
- Nature helps children develop powers of observation and creativity and installs a sense of peace and being at one with the world (Crain 2001)
- Natural environments stimulate social interaction among children. (Bixler, Floyd and Hammut 2002)
- Outdoor environments are important to children's development of independence and autonomy (Bartlett 1996)

In cooperation with the NEED project, Grunnskóli Hornafjarðar has taken on a project called "A classroom in a backpack". This is a project where some good quality backpacks were bought filled with tools and appliances that are necessary for a field trip. This simplifies all preparations for field trips and makes it easier to use opportunities in the environment around us.

This includes buying quality backpacks, marked with the logo of NEED, the logo of NPP and of Grunnskóli Hornafjarðar. In to every backpack there were then bought tools and equipment for the field trips.

5 backpacks were bought and a lot of equipment to put in to them.

This includes :

the backpack
 pencil case with pencils, erasers and sharpeners
 calculators
 binoculars
 digital cameras, strong, water and, dust resistant

30 meter long tape measurer
 inch rule
 clipboard
 pocket knife
 compass
 small items such as tape, string etc.



A binocular microscope was also bought to work with samples gathered in the trips and a wireless easy-scope to connect to a computer.

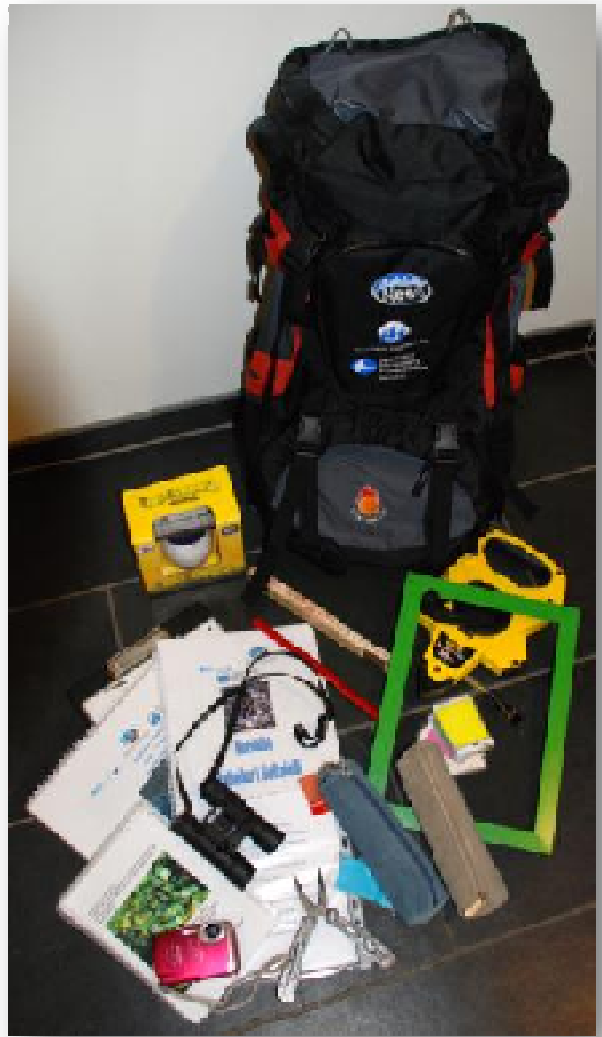
In this partnership, Grunnskóli Hornafjarðar donated the work of making assignments for each field trip and organising the trips. They also bought all the equipment and established a web site where the assignments are presented. NEED financed the buying of backpacks and equipment.

According to the plan each backpack is marked for a special field trip and filled with equipment suited for that trip. Those trips are:

1. A field trip to Lónsöræfi. 3 day walk in the wilderness with the students in 10. grade.
2. Trips to Geitafell. Few hour trips for all ages with different tasks by age and season.
3. A field trip to Örfæsasveit with 6. and 7. graders. 2 day field trips through the wonders of Skaftafell
4. A field trip to Suðursveit with 4. and 5. graders. 2 day field trip staying overnight at the old school house at Hrollaugstaðir.
5. Skiing trips to Oddsskarð with 6. and 8. grade and a trip to Vatnajökull glacier with 10. grade.

Of course borrowing from the other backpacks not being used at the time is recommended, then the groups have more cameras, binoculars and compasses in the longer trips. Some trips require more than one backpack. Handbooks and maps are moved between backpacks as needed.

The backpacks and their contents can be seen in the following pictures.



Bibliography

Aðalnámskrá Grunnskóla. (2007). *Náttúrufræði og umhverfismennt, 9*. Menntamálaráðuneytið, Reykjavík

Bixler, R.D., Floyd, E. Myron, Hammutt, E. William. (2002). Environmental Socialization: Qualitative Tests of the Childhood Play Hypothesis. *Environment and Behavior* 34 , 795 - 818.

Fjortoft, I. (2001). The Natural Environment as Playground for Children; The Impact of Outdoor Play Activities in Pre - Primary School Children. *Early Childhood Education Journal* 29 , 111 - 117.

Herrington, S. (2008). Perspectives from the Ground: Early Childhood Educators' Perceptions of Outdoor Play Spaces at Child Care Centers. *Children, Youth and Environment* 18 , 64 - 87.

Pyle, R. (2002). Eden in a Vacant Lot: Special Places, Species and Kids in Community of Life. In P. o. Kahn, *Children and Nature: Psychological, Sociocultural and Evolutionary Investigations* (pp. 305 - 315). Cambridge: MIT Press.

Schultz, P. Westley, Shriver, Christ, Tabanico, J. Jennifer, Khazian, M. Azar. (2004). Implicit connections with nature. *Journal of Environmental Psychology* 24 , 31 - 42.

Taylor, A. F., F. E. Kuo, og W. C. Sullivan. (2001). Coping with ADD; The Surprising Connection to Green Play Settings . *Environment and Behavior* 33 , 54 - 77.

Taylor, A.F., F. E. Kuo og W. C. Sullivan. (1998). Grow up in the Inner City; Green Spaces as Places to Grow. *Environment and Behavior* 30 , 3 - 27.

Taylor, A.F., F.E. Kuo og W.C. Sullivan. (2002). Views of Nature and Self-Discipline: Evidence from Inner City Children. *Journal of Environmental Psychology* 22 , 775 - 795.

Wells, N. (2000). At Home with Nature, Effects of "Greenness" og Children's Cognitive Functioning. *Environment and Behavior* 32 , 775 - 795.

Wells, N. og G. Evans. (2003). Nearby Nature; A Buffer of Life Stress Among Rural Children. *Environment and Behavior* 35 , 311 - 330.