Making the Cut

Grass cutting in East Ayrshire Education Establishments

Moving forward with renewal plans, building relationships and partnerships and working to common goals, East Ayrshire Council is delighted to trial a new pilot of grass cutting in our school estates.

Working collaboratively, the Learning Outdoor Support Team and Outdoor Services have developed an initiative which will benefit both pupils and the environment in a sustainable manner.

When lockdown commenced the grass cutting in school estates in East Ayrshire was halted. This resulted in many school playing fields turn into meadows which became home to a diverse range of plants and life. With schools now returning and pitches and grass spaces needing managed, a new optional programme has been made available to schools.

Using educational resources from Nature Scotland (previously Scottish Natural Heritage) pupils will undertake lessons on Biodiversity, before heading into the school playgrounds to identify grass spaces which could be left as 'meadows'. Using school maps and measuring equipment the pupils can design paths and/or mazes which will be cut into the grass. Schools joining the programme will be supported to continue to look after and value the new spaces and understand the benefits they offer for education, environment, health, and children and young people.

The benefits connected to National Outcomes

Education – We are well educated, skilled and able to contribute to society.

The educational value of learning in the outdoors has been well documented[1] and demonstrated through projects such as the Curriculum Outdoors Attainment Challenge[2] in East Ayrshire Schools.

Learning maths and literacy in meaningful, engaging ways such as bug hunts to collate information for bar graphs, measuring heights of plants to practise knowledge of measurement and, finding, identifying and gathering information about different species of plants and animals to increase vocabulary and knowledge, all help to raise attainment.

Research suggests deeper learning occurs for young people when they co-construct their education. When they are more engaged and invested in the decision making about their education, they take greater responsibility for and bring more energy to their learning, this improves attainment[3].

Research has found that children who access natural spaces around the home or school have improved cognitive performance[4], their attainment is better.

Environment – We value, enjoy, protect and enhance our environment.

When sites are appropriately and correctly designed, wildflower and wildlife meadows have been found to add definition and to the attractiveness of a space.

These managed habitat areas also have clear biodiversity benefits:

- Not cutting grass as short or as frequently allows grasses and other lawn plants such as plantain to seed and provide food for birds. Other lawn plants, such as daisies, provide nectar for hoverflies and bees; in addition, bees will also visit buttercups to collect nectar and pollen.

[1] Education Scotland (2010)Curriculum for Excellence through Outdoor Learning. Accessed https://education.gov.scot/improvement/Documents/hwb24-cfe-through-outdoor-learning.pdf]
[2] (2017) Curriculum Outdoors Attainment Challenge, Education Scotland can be accessed https://education.gov.scot/improvement/practice-exemplars/sac87-curriculum-outdoors-attainment-challenge/
[3] Paul Hamlyn Foundation (2010) Learning Futures: Engaging School. https://www.phf.org.uk/publications/learning-futures-engaging-school/
[4] Dadvand, P., et al., Green spaces and cognitive development in primary schoolchildren. Proceedings of the National Academy of Sciences, 2015. 112(26): p. 7937-7942.

- Long grass provides somewhere for invertebrates to shelter and breed and for their eggs or pupae to survive the winter. Some species of moth and butterfly, as well as craneflies and sawflies, find this valuable. These provide a source of protein-rich food for mammals and birds, and are particularly important for the survival of young chicks.
- When grown against a border or shrub bed, long grass improves conditions beneath the shrubs for invertebrates, which in turn provide food for birds and mammals such as hedgehogs.

Children who regularly spend time in nature are more likely to value and respect the environment.

Children and Young People – We grow up loved, safe and respected so that we realise our full potential.

When children and young people are authentically included in the planning process, the outcomes are more likely to succeed. Using pupil ideas and designs for mazes, paths and other interesting features in the longer grass we can offer an innovative, new play resource which can be redesigned at no cost each year.

Meadows also support a more natural style of play, making daisy chains, 'forest' style play and creating environmental art are a few examples. Recent research shows that children's development is encouraged more by 'natural play' with its multiple, diverse opportunities, over the more traditional, equipped play areas.

There is positive evidence relating to the impact of activities in natural environments on children's mental health and wellbeing in particular, one study found that regular use of natural environments for physical activity appeared to give a lower risk of poor mental health[5].

Being physically active can also be effective at preventing childhood asthma, in treating conditions such as depression, and in the promotion of recuperation from diseases such as cancer[6].

Research has also found that compared to indoor activities, physical activity in natural environments can produce greater feelings of revitalization, decreases in tension, confusion, anger and depression, and increased energy and positive engagement[7].

The benefits of conservation activities such as the TCVs Green Gym, have shown that exposure to natural environments, achievement, enjoyment and social contact are important pathways to positive mental health outcomes[8].

There are multiple benefits for our children and young people in offering them the opportunity to learn and play in natural greenspaces. We hope this initiative will support East Ayrshire establishments to engage is these new practices.

Included in this document are:

- support templates for schools to use when creating specific agreements with Outdoor Services which identify workloads, priorities, specification and timescales.
- Links to educational resources
- Further reading

[5] Mitchell, R., Is physical activity in natural environments better for mental health than physical activity in other environments? Soc Sci Med, 2013. 91: p. 130-4
[6] Townsend, N., et al., Physical Activity Statistics 2015. 2015, British Heart Foundation London.
[7] Thompson Coon, J., et al., Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review. Environ. Sci. Technol., 2011. 45: p. 1761.
[8] Lovell, R., et al., Understanding how environmental enhancement and conservation activities may benefit health and wellbeing: a systematic review. BMC Public Health, 2015. 15(1): p. 864.

Support Templates

Agreement Framework Template

Agreement-Document-Framework.pdf (glowscotland.org.uk)

https://blogs.glowscotland.org.uk/ea/learningoutdoorssupportteam/school-estates/

Education Support

East Ayrshire's Learning Outdoors Support Team website - https://blogs.glowscotland.org.uk/ea/learningoutdoorssupportteam/

Nature Scotland Biodiversity Pack (PDF downloadable) https://www.nature.scot/biodiversity-activities-pack

Support for Grounds Audits

https://blogs.glowscotland.org.uk/ea/learningoutdoorssupportteam/school-estates/

Further Reading

Brymer, E et al. (2019) One health; the well-being impacts of human-nature relationships. Frontiers in Psychology

DEFRA. (2017) Evidence Statement on the links between natural environments and human health [Accessed] https://beyondgreenspace.files.wordpress.com/2017/03/evidence-statement-on-the-links-between-natural-environments-and-human-health1.pdf

Royal Society for the Protection of Birds (2015)The Impact of Children's Connection to Nature.

Blackmore, L. and Goulson, D. Evaluating the effectiveness of wildflower seed mixes for boosting floral diversity and bumblebee and hoverfly abundance in urban areas. Insect Conservation and Diversity (2014) doi: 10.1111/icad.12071

Bird, W. (2007) Natural Thinking. A Report by for the Royal Society for the Protection of Birds.