### Nature play (Academic year 2019-2020)



#### 40 items

Early childhood practice: Froebel today, by Tina Bruce, 2012

**Book** | Further Independent Study | In this book, edited by Tina Bruce, the authors explore and reflect on the ways in which Froebel continues to be a resource for practitioners today. To Froebel the garden was both literal and metaphorical, it was seen as a garden where children could flourish like flowers and plants that have been appropriately nurtured but also as a physical space where children could learn from first hand experiences and from nature. A rich outdoor area offers infinite possibilities for adventure and challenge and gives children the chance to create alternative worlds to their own nurturing fantasy and pretence. Outdoor play also allows children to feel secure about taking reasonable risks in order to taste their boundaries and abilities, while playing outdoors, children's efforts in caring for plants and flowers will be rewarded when those grow and flourish under their care encouraging observation and study of the natural world. This is an interesting resource that shows how much Froebel's educational philosophy is still very much alive in early year's education today; it encourages the reader to draw parallels to consider where Froebel's education touches the curriculum provided for young children today.

**Kindergarten architecture: space for the imagination**, by Mark Dudek, 2000 **Book** | Through a combination of historical and contemporary analyses the book explores a diverse range to the design of kindergartens assessed on the basis of practical and theoretical criteria. According to Froebel children were like budding lilacs and the kindergarten (garden of children) was designed to nurture children as you would nurture flowers in a garden. The analogy with nature in the last sentence is very common in Froebel's philosophy and it makes the reader understand the importance of nature in his educational philosophy. According to Froebel, the garden and the buildings together should be representative symbols of the natural world that surrounds the child. This volume is an interesting resource for the reader wanting to understand the kindergarten from an architectural perspective, Dudek (2000) clearly shows the links between the design of the environment and the importance of nature as seen by Froebel.

**Autobiography of Friedrich Froebel**, by Friedrich Froebel; Emilie Michaelis; H. Keatley Moore, 1888

**Book** | Further Independent Study | The 'Letter to the Duke of Meiningen' written in 1827 describes the boyhood and the earliest experiences in Froebel's life making the sources of his whole educational system clearer to the reader. Froebel describes his feelings towards nature and the importance it has played in his formation. In this letter Froebel also describes how 'humanity and nature, the life of the soul and the life of the flower, were closely knit together' (Froebel, 1896:12). This resource will be useful for readers wanting to understand Froebel's' philosophy.

Friedrich Froebel's education by development: the second part of the Pedagogics of the kindergarten, by Friedrich Froebel; Josephine Jarvis, 2003

**Book** | In the present volume the educational principles underlying the gifts are thoroughly discussed. This resource can be of particular interest for students who wish to cast a new light over Froebel's thinking. Brief summaries at the end of each chapter provide a succinct way to highlight the issues discussed in each chapter. Of particular interest for Froebel's nature study is Chapter VII 'The Children's Gardens in the Kindergarten'. The use of the garden for children in the kindergarten is described in detail stressing the importance of common care of the garden where children can cultivate and care for plants. The aim of including the children in the care for the garden is not only to educate them about relation is the family and in society but also to learn about plants. Detailed instructions are given on the arrangement and the shape of the garden. Indications for parents to follow at home in their garden are given in order to provide the children with guidance and moral elevation in the home.

**Froebel's chief writings on education**, by Friedrich Froebel; S. S. F. Fletcher; J. Welton, 1912 **Book** | Further Independent Study | This resource is aimed at educators with the central belief being that 'the present is both the child of the past and the parent of the future' (Froebel, 1912:V). The translation of this edition is aimed at presenting Froebel's thought as precisely as possible in the English language. In the introductory chapter the fundamental principles of education are explained with nature being a constant metaphor used. Of particular interest is Chapter IX 'Study of Nature'. In this chapter Froebel gives an introduction to the meaning of religious value of the study of nature, the importance of direct study of nature and the doctrine of sphericity. He then moves onto suggesting on how educators can guide children to experience nature at its best and the need for educators to teach nature as a living whole, teachers and pupils should be fellow-inquirers in the study of nature. Subsequently, the concept of mathematics is explored as connecting man and nature and, consequently, as a concept to connect and originate knowledge. The functions of mathematics are described and the necessity for mathematics in education is explained.

**Extracts from letters written by Friedrich Froebel**, by Friedrich Froebel; E. R. Murray, 1929 **Book** | Further Independent Study | These letters were written between 1840 and 1852, this books presents a selection of material from 'Froebel's letters' published in 1891. The letters deal with the foundation of Froebel's Kindergarten. Froebel's remarks on the education of man in relation to nature, in the selections of the letters included in this book he constantly mentions the importance of nature in his correspondence with differing recipients (p.9). The letters also include a typical daily schedule for children and educators to follow in the kindergarten. This material will be of use to anyone wishing to gain deeper knowledge on how Froebel devised the kindergarten; the letters make it possible for the reader to gain a deeper insight into Froebel's ideas for the creation of the kindergarten.

### The education of man, by Friedrich Froebel, 1968

**Book** | This volume shows the fundamental philosophy of Friedrich Froebel and the principles upon which his kindergarten is built. The inner connection, a concept so important in his philosophy and ideas, is the law of development, Froebel's aim is to educate children through their self-activity, during play the child determines what he is capable of doing and discovers his possibilities of will and thought. Chapter V(b) 'Natural Science and Mathematics' highlights the unity between religion and nature representing

the latter as a revelation of God. Froebel argues that most children live in nature but their knowledge of it is scarce, he advocates for boys and children to experience nature together and strive to receive the spirit of nature in their hearts. The chapter describes the development of crystals mathematically as a confirmation that things in nature respect the perfect harmony and are a consequence of the law of nature to which they abide by.

The student's Froebel, by William Henry Herford; Friedrich Froebel, 1905 Book | This volume contains indented editor's comments which are very useful in understanding the more complex paragraphs. According to the author in order to get the clearer insight into the nature of objects educators should prompt recognition of these objects in their natural connection. Observing nature must happen in an orderly manner starting from the classroom and proceeding to the distant or less known, with the educator's guidance answers to questions become exercises of speech for the students. Herford (1900) identifies the home knowledge as the beginning of geography from which the educators can guide students' knowledge to the more distant concepts from their existing grasp.

**Froebel's educational laws for all teachers**, by James L. Hughes, c1924 **Book** | The aim of this volume is to present the most important principles of Froebel's educational philosophy and to make suggestions regarding the application of these principles in classroom practice and training. Chapter VII 'Nature as the Revealer of Life, Evolution and God' presents a particularly interesting view of the study of nature from a more spiritual point of view. According to Froebel the active principle in nature is God and even if the child is not aware of it yet, his life in enriched by an intimate knowledge of Nature. Parents are reminded that taking their child to explore Nature will make them closer to God as Nature represents the house of God. Natural occurrences, such the coming of spring and the awakening of trees, flowers and animals represented for Froebel the ideal metaphor to understand the idea of man's resurrection and to reveal death as a joyous transition to another life. This volume will be of interest to anyone concerned with the deep association between nature and spirituality in Froebel's philosophy. Furthermore, this resource gives an alternative view of Froebel's understanding and connection with God.

**Interaction between four-year-olds in a nursery school garden**, by Inner London Education Authority, 1983

**Audio-visual document** | This VHS contains observational material of children's interaction in the nursery's garden, the children are observed for 25 minutes while playing I the garden. Initially they are given basic instructions from the teacher about the task that they have to perform but they are then left free to play and experience the garden. This is an example of how nature play is been integrated in practice in the 1980s. We can see pretend play during the observation and it is clear that the children took pride in carrying on with a task that has been assigned to them. This material does not represent nature study as Froebel intended but it is valuable in order to understand how children play and interact in nature. This VHS would be useful to the viewer wanting to gain observational material on children's play outdoors and to extend knowledge about nature play in settings.

Froebel's kindergarten principles: critically examined, by William Heard Kilpatrick, 1916

**Book** | This is a critical book generated from a critical study of Froebel with experienced kindergarten and primary students. It is the author's aim to clarify some disputed points of Froebel's kindergarten theory to help spread the reform of kindergarten theory and practice. Furthermore, a specific aim for the book is firstly to make clear to educators Froebel's doctrines for the kindergarten and secondly, to understand the values that Froebel attached to these in light to the best theory at the time of publication. Of particular interest for Froebel's nature study is Chapter V 'Additional Elements of the Kindergarten Curriculum' under the subheading 'Nature Study in Froebel', an explanation of Froebel's advocacy for children being immersed in nature is provided. Froebel believed that children should be interested in nature and that their play should incorporate this. Kilpatrick (1916) explains Froebel's interest with nature as having both a mystical and practical aim: the child is encouraged to cultivate the garden to gain a standard in order to judge his activity and learn the connection between environment, effort and result. Also, from a mystical point of view, by caring for another living thing the child will be eager to foster his own life.

An introduction to zoology through nature study: with directions for practical work : (invertebrates), by Rosalie Lulham, 1927

**Book** | Lulham, R. (1927) An introduction to Zoology trough Nature Study, London : Macmillan.

Summary: According to the author one of the things that are to be valued of education is knowing about the world in which we live in. Through a patient, precise and sympathetic study of common animals the reader could reach a better understanding of himself and his place in Nature. In this volume Lulham (1927) describes various species and provides both drawings and information about the nature of beings, its locomotion and nutrition, she also describes growth and reproduction and their characteristics. As Lulham (1927) established the nature studies in the Froebel College this volume will provide the reader with an in depth insight on how the nature studies were taught in the Froebel College.

### Froebel education to-day, by Barbara Priestman, 1946

**Book** | The aim of this book is to give parents and teachers an idea of the modern (at time of publication) development of Froebel Education. It aims to highlight the understanding that happiness plays an important part in each child's development and education and that play must be the central part of this. It also aims to guide parents in understanding what to expect of a good school. The figure of the teacher, according to the author, is not of a passive educator, there must also be some definite teaching to give. It is the educator's job to understand the individual needs of the child and the existing knowledge of the child in order to understand when it is time to stimulate, encourage and direct children's learning. Nature play is represented in this book as an activity that the children engage in during the day, the author describes one episode of some children constructing a survey of the surrounding area, the work that they have produced includes a map, fossils found in the chalk, sketches of the valleys and a list of the wild birds in the area. The children demonstrate proudness in their work and are eager to share it with others. The survey is to be carried on during the year and will include, as well as the history, social study and geography of the area, also a record of the natural life of the area through the seasons. This is an interesting text for anyone wanting to understand how Froebel's educational principles have been translated in more modern education in Britain.

**Book** | This material was intended to assist teachers in the use of the blackboard for nature teaching. It is deemed necessary that students firstly have immediate touch with natural objects before representing them; therefore, actual specimens of the plants to be represented need to be provided at the time of the drawing. There is also a section devoted to animal life; all the animals have been selected on the basis that are easily available to the children and can be seen in their daily lives. All the illustrations in the books are kept simple so that they can be copied on to the blackboard without any need for adaptation. Before each illustration the authors introduce the plant or animal's properties and characteristics in order to provide some context to the illustration. This resource would be useful to the reader wanting to understand the meaning of nature study for Froebel along with what was requested of the students in this discipline.

# Free Play with Froebel: Use and Abuse of Progressive Pedagogy in London's Infant Schools, 1870-

.1904 - in Paedagogica Historica, by Jane Read, 2006-06 Article | Further Independent Study | The article focuses on the adaptation of Froebel's kindergarten pedagogy for the Babies' Classes and Infant Schools established by the London School Board from 1870 to 1904 and opens with a brief historiography of infant education in London in this period. Key aspects of Froebel's educational philosophy are outlined; the article looks at how Froebel's educational philosophy was transmuted in the UK. Of particular interest for the subject of nature and nature study is in page 307. Here the author explains how the countryside provided opportunities for direct observation of the natural world for children, the observation of nature will then foster children's religious and spiritual insights. This article will be of interest to the reader wanting to understand how Froebel's educational philosophy was received and adapted in the UK.

**Bringing the Froebel approach to your early years practice**, by Helen Tovey, 2013 **Book** | The garden is seen as the essence of Froebelian practice, in it children are free to express themselves and move. In Froebelian practice the garden provides experiences that would not be possible indoors, it is carefully constructed by adults but it controlled by the children who are left free to initiate their play as they wish. The peculiarity of the Froebelian garden as opposed to any outdoor area in a setting that is not considered as following the Froebelian legacy is that the garden is available through the day with free movement between indoor and outdoor areas, it is not used only for playtime or for recreation, it is part of the children's schedule as much as any other activity. By being immersed in nature Froebel believed that children were encouraged to learn about nature, plants and animals that inhabited the garden. Froebel's ideas are linked with current perspectives in the early years, as children spend more and more time indoors it is with urgency that we should review and adopt Froebel's theory on nature play. This volume will be useful for the reader looking to link nature play as devised by Froebel with education principles today.

### Nature study leaflets: 1-11, by School Nature Study Union, 1907-1908

**Book** | Nature study, according to Von Wyss (1908), is a particular approach and is not concerned, like the sciences do, with a particular phenomenon. The author suggests making nature study seasonal in order to avoid having too many specimens in the classroom and allowing the students to observe nature outdoors. The aim of nature study

is to present living things in the most natural setting possible, to present specimen at the wrong time of season will take away some of the naturalness of the studies. It is imperative that teachers choose what is easily within reach and in season. Von Wyss continue the writing by outlining a plan of nature study lessons according to seasons and year of study of the pupils. This resource will be of interest to the reader who wants to understand how nature studies were imparted at the time. Similarities can be found with the EYFS statutory framework that is in use nowadays in early year's settings.

Playing outdoors: spaces and places, risk and challenge, by Helen Tovey, 2007 Book | This book aims to give support to practitioners working with children in order to encourage high quality experiences of learning outdoors. Chapter 3 'Outdoor Play: the presence of the past' looks at traditions of outdoor play and considers them as being dynamic and evolving, not fixed and resistant to change. In the chapter Froebel's philosophy on outdoor play is examined, the garden for Froebel had both a metaphorical and a literal meaning, the garden constituted an essential part of Froebel's kindergarten. Children could plant and grow what they liked in the individual plots in the garden but they had to work together to also take care of the communal part of the garden. It is through gardening and playing outdoors that children learnt about nature, plants and animals but also they learned to understand their own place in the natural world learning through first-hand experiences in the garden. This resource will be of great interest to the reader wanting to understand nature play both from an historical perspective and a contemporary view that it is still advocated for practice today.

### The link

**Journal** | The link is a student magazine detailing students' activities, exams reports and societies in the Froebel College. It is not in publication anymore but the archive holds an extensive collection of the issues dating from 1910 through 2001.

The volume detailed here includes issues from 1910 through 1922. Of particular interest in issue number 1 is a piece about a nature study vacation course for the students to attend, the vacation included lessons in biology, plant physiology, zoology and gardening. The lessons are based on practical work carried on during expeditions in Swanley. In a letter from a former student the difficulty of implementing nature study in an urban nursery is described in detail: the former student details her observations of the children during nature studies, digging in flower beds and discovering worms and bugs in the soil. She remarks on how difficult it was to introduce practical nature study for urban children that have rarely seen a garden before, she also observes that there is not enough space for the children to each have a flower bed because the setting is small but also hopes that in the future some changes will be made. From this letter we can see her passion in being a Froebelian practitioner and her will to change existing practice in order to make education more stimulating for the children in the London area.

The Link (1933-1939) In this volume in number 26, a Rosalie Lulham Memorial Number is included. When Miss Lulham joined the College and the Demonstration School situated in West Kensington there was no Nature Department in the school. This piece describes the changes that Miss Lulham made to the college and how the students' learning has changed thanks to her teaching methods. As well as providing the college with a Nature Department, Miss Lulham also organised expeditions on the grounds and surrounding areas for the students to learn by stand and stare at nature and all its beauty. This is an interesting resource for the reader wanting to gain an insight into how Froebel's nature

study has been taken forward and maintained during the students' training many years after his death. It also shows the legacy that Froebel managed to create with his educational philosophy that still survives today.

#### The Froebel Guild- The Link (2000).

In this issue Jane Read's lecture given on the 13th of May 2000 in history of the Froebelian movement is presented. Of particular interest is the part on nature study. It is presented as the key subject in the Froebelian curriculum. Nature study has been described and defended through the years as scientific work with young children providing children with basic skills and techniques of science through observation and first hand experiences. This article describes different people's contribution to Froebel's ideas on nature study after his death. This article will be of interest to the reader wanting to gain an understanding of different contribution that lecturers have made to the nature study when at the Froebel institute.

### Aquaria, by F. M. Haworth, 1954

**Book** | This book written by Haworth (1954) head of the natural history department as the Froebel educational institute, gives clear instructions on how to create and maintain an aquarium. It presents the reader with an alternative way of studying and observing nature when it is not possible to do so outdoors and it is an interesting resource to understand how Froebel's nature study has been modified in order to be adapted to the more urban environment.

Mother-play, and nursery songs: with notes to mothers, by Friedrich Froebel, c1878 Book | Further Independent Study | This volume presents Froebel's mother songs in their original form. The songs are accompanied by an illustration also detailing the finger games for the song, and a music sheet. Froebel believed that the process of education began on the day that the child is born, it was then necessary to give mothers some guidance over their first interactions with the child. The songs are to care for the child but also to provide games to stimulate the senses and the use of the limbs and body. Of particular interest in the illustrations of the song is the use that Froebel makes of nature. Nature is used as a symbol to provide the means by which to illuminate the deeper meaning of life, and also as a medium for the child to understand the environment around. It is ever present in the illustrations for the songs and the importance of nature in Froebel's educational philosophy is clear in this book.

# Child life: a magazine for kindergarten teachers, parents and all interested in the education and development of young children : new series

**Journal** | Further Independent Study | This journal represents a significant source for researchers interested in the Froebel Society and the other organizations making up the Froebel Movement. In addition to providing data on the Froebelian organizations which, significantly were almost wholly women's organizations and thus of interest to feminist researchers, the journal provides a wealth of material on Froebelian pedagogy and curricula and on the education of young children in general. This resource provides copious material on the way Froebel's original conception of the kindergarten was revised in the light of the rise of the sciences of education, child study and psychoanalysis. The subject of nature study, being one of Froebel's main principles, is often mentioned in the publications. One example of how nature study was intended can be seen in volume one

of the journal in a piece called 'Why blackboard drawing is essential to teachers' by Mrs Rowland Hill. In this piece the utility of blackboard drawing is discussed looking at children's representations of nature. Blackboard drawing as a mean for teaching is illustrated and entwined with the study of nature, even though the study of nature should be the start of blackboard drawing Mrs Hill describes how, children's propensity for representation can also be used for other means of education such as shapes and numbers. In this article it is interesting to see how, even though nature study is at the basis of blackboard drawing discussion, the author tries to extend the use of blackboard teaching to other disciplines.

### Kindergarten magazine

**Journal** | The kindergarten magazine it is a journal devoted to the child and to the education and practice in the kindergarten. It contains articles related to practice in America and discusses various issues in the practice of Froebel's educational ideas. The introduction to the journal explains how the kindergarten system has expanded in America and how Froebel's ideas can be adopted to make the kindergarten progress permanently and establish itself as an important part of the existing educational system. A particular article, relevant to nature play, written by Lucy Wheelock, states that when Froebel thought about the name kindergarten he wanted to express the unity between nature and the development of the human being. Nature study is here seen as giving the child the basics of the arts and sciences to children. Froebel is quoted explaining the nature study as a 'path which starting from sympathy with Nature runs through the study of Nature to comprehension of the forces, laws and inner meaning of Nature'. Nature study is seen as fostering the child's natural interest about the life that surrounds him guiding him through early observation which then they will later form the basis of scientific study. This is only one example but the entire journal will be of interest to the reader wanting to explore how Froebel's educational ideas have been adapted in the American system of education, furthermore, the Kindergarten Magazine presents discussions about Froebel's practice linked to the necessary progress of the kindergarten.

### School nature study, by School Nature Study Union

**Journal** | The journal is concerned with the study of nature in schools, discussions about the progress and success of introducing the nature study in schools are presented. Moreover, suggestions for improving nature study in schools and training of teachers are advanced and it is Froebel's observation of Nature Study represent the ideal training on which teachers should concentrate. Articles detailing observations of nature in London are presented completed with drawings and apparatus and special equipment in order to facilitate the study of nature indoors is described in details. The whole journal will be of interest to the reader wanting to explore how Froebel's Nature study has evolved and permeated the education system. The discussions about progress and careful adaptation of Froebel's ideas without transforming his messages are the heart of the journal.

### New era, by World Education Fellowship

**Journal** | This journal aims at making known what is happening in education by considering not only the UK context but also international perspectives. It is centred on the child considered as a whole being in the home, school and in societies across the world; the child's environment is considered a major influence in his development and education. The journal present articles aimed both at parents and teachers and illustrate issues that challenge practice and thought. Of particular interest in volume the volume for issues

published from 1931to 1932 are several articles detailing Nature study and science teaching in schools. In a piece by Olive science work in Dauntsey School in Wiltshire is described an analysed illustrating how, in the early years, mathematics and science are interlinked, practice and observation of scientific processes will form the basis for wider experimentation later on. Plants and animals need to be observed in order to learn about biology, a system of aquariums is been constructed indoors so that the pupils could satisfy their interests and make their studies more profound and real. In another article by Davies, a project in a rural school is described in order to help children from a rural background to achieve education by methods that are meaningful to them. Arithmetic is thought in the open using the garden as a practice ground for division of plots, botany is also practiced by studying processes of germination for plants and the insect world with particular interest to insects and fungus that could be detrimental and dangerous to crops. This is an interesting journal for the reader wanting to explore how Froebel's ideas on Nature study have evolved during time.

## Nature study, Aborigines and the Australian kindergarten: lessons from Martha Simpson's - in History of Education, by Jennifer Jones, 2014-07-04

**Article** | Further Independent Study | The journal aims at furthering the study of the history of education by providing opportunities for discussion among those engaged in its study and teaching. In a particular article by Jones (2014) called 'Nature study, Aborigines and the Australian kindergarten: lessons from Martha Simpson's Australian Programme based on the Life and Customs of the Australian Black', nature study in the Australian context is examined. The article illustrates an experimental kindergarten program developed by Martha Simpson in early twentieth-century Australia. Simpson hypothesised that aboriginal culture could serve as stimulus for age-appropriate and improving child-centred activities. This specific article is of interest to the reader wanting to explore hoe Froebel's educational philosophy and nature study is been transported in a different context and adapted to the demographic of a different continent in order to still be relevant and stimulating for children's experiences.

**Nursery schools today: planning, designing, equipping**, by Nursery School Association of Great Britain and Northern Ireland, 1954

**Book** | This pamphlet is a report embodying the recommendations contained in the document 'Planning the new nursery schools' published in 1950. After the passing of the Education Act in 1944 nursery education had received some fresh hopes for provision. In the document there is a section titled 'The nursery school garden', it describes the importance of having a garden in the nursery in order to give children the opportunity, all year around, to experience the outdoor environment for long periods of time. Plants and trees to be placed in the garden are described in detail along with suggestions for fencing and placing of the garden. Pets and vegetables are encouraged and, although this pamphlet encourages children to explore and watch the nature and animals in the garden, it does not clearly mentions if the children will be allowed to care for the plants and trees in the garden or if they are just meant to watch the nature and use the outdoor area as an extended playground. This pamphlet shows how nature study has been transformed and adapted to the English context perhaps, in this example, by taking away some of the learning for children involved in the study of nature.

**Portfolio on materials for work and play**, by Association for Childhood Education International, 194-

**Book** | This pamphlet describes different material that can be used for children's work and play such as drawing and painting materials, clay, blocks, textiles for sewing and weaving, puppets, musical instruments, books and many others. The authors illustrate how knowledge acquired through eye and ear is greatly strengthened by all the materials listed above. The chapter titled 'Materials for Science' describes how, together with the materials that should be purchased for science study, the school has to consider the children's interests when introducing the subject in schools. Live animals and insects can be brought to the classroom for children to observe and to create their own insect cage. In this we can see how Froebel's ideas about the study of nature are still been valued and followed when children approach the subject of science in schools. This is an interesting resource for the reader wanting to explore how some of Froebel's ideas have been replicated in different methods of education and how they have been adapted to the context and historical period.

**Nature study with the under-eights in country schools**, by M. M. Hutchinson; School Natural Science Society, 1969

**Book** | In this small pamphlet the author describes the Nature Study that can be done with children under eight years of age. She illustrates how Nature Study is the basis of all biological knowledge including the knowledge of ourselves as part of nature, a very Froebelian statement. It is important to teach children about our dependence from plants and animals for survival and also to discuss how far we can go in using nature for our survival. The author states that Nature Study should be enjoyable for both children and teachers because it is what we enjoy that we remember the best and that really becomes part of us. In a country school children have an overabundance of nature to explore around them and it is by learning through their senses starting from their interests that the Nature Study will transform in knowledge for the children. The author here does not give any instructions for activities to include in the curriculum; instead, she deliberately talks about nature study in general. This is to show that it is only by following the children's interests that Nature Study will be received by the children. This is a very interesting interpretation of Froebel's nature study which is still very close to Froebel's philosophy.

Suggestions for the consideration of teachers and others concerned in the work of public elementary schools: The teaching of gardening, by Great Britain, 1922

**Book** | This booklet offers suggestions to teachers about curriculum and methods of instruction for young children; it is not aimed at imposing regulations or a code of rules for the teachers to follow. The teaching of gardening is defined as being practical; it is a manual occupation that can train hands, mind and character of the child. Through gardening children will learn patience and the joys that successful craftsmanship can bring; in the school garden respect for nature and appreciation of it can be taught at a basic level being a skill that the child can use outside the school as well. Children are encouraged to experiment when gardening in order to fully understand their mistakes when some gardening activities are not performed well, the role of the teacher is of a facilitator striking a balance between doing too much or too little for the pupils. This booklet presents the reader with both practical and theoretical advice over the teaching of gardening to primary school children. After the art of gardening is explored and illustrated some guestions are presented and answered to show how an ideal environment for gardening should be kept and the tools needed for the children. In this pamphlet we can see much of Froebel's ideas on nature play being adapted to the more modern context without losing the Froebelian philosophy behind them.

### List of books on "nature study", by School Nature Study Union, 1936

**Book** | This pamphlet presents the reader with a bibliographic list of books about nature study. The lists are divided according to the use that can be made of the books, for example: class and text books and in biological science, elementary general science readers and class books, general experimental and laboratory studies in biological science. This will be an interesting and useful resource to the reader wanting to explore how nature study was promoted and thought in schools in the 1930s.

## Then and now: the Froebel Society's Jubilee Pamphlet, by M.C. Strachey; Froebel Society, 1925

**Book** | This pamphlet was created by the Council of the Froebel Society and Junior Schools Association in occasion of the Society's Jubilee year to show the progress that had been made in carrying Froebel's ideas on education, and what remains after fifty years of effort, to be done. In the Nursery School section of the pamphlet discusses the Nursery schools in London where the greatest disadvantage and drawback to the fulfilment of Froebel's ideas on nature play is due to the lack of space and pure air in the city. Due to the reasons described above, London schools leave much of Froebel's ideas on nature study unrealised. The space is very limited and the soil and atmosphere are so unpromising that the contact with nature that Froebel so strongly advocated for, cannot be provided to the children in these schools. The children can, however carry on their nature work indoors, but it is argued that this is showing them nature from an unnatural point. Some nursery schools have programmes that allow them to travel to the country for a few weeks over the summer so that the children can fully benefit from being at one with nature. This pamphlet will be of use to the reader wanting to explore how nature study, as intended by Froebel, has been adapted to a city environment and how his ideas have been carried on during the years after his death.

## Nature activities in schools suitable for pupils in primary schools and lower forms in secondary schools, by School Natural Science Society, 1969

**Book** | This pamphlet describes the benefits of using nature study as a focus of interest in teaching. It also describes how using a method of discovery that uses children's first hand experiences of the natural environment can present the pupil with richer experiences the stimulate learning. Nature study provides a foundation from which the child can develop more advanced and integrated scientific studies later on. Direct observations and exploration are a priority in the study of nature as these are more appropriate methods to use with younger children instead of scientific work based on abstract ideas. The pamphlet contains articles by members of the School Natural Science Society indicating a variety of possibilities for exploration suitable for use with children in primary schools and in the early years. In the booklet plant studies are covered together with tree studies, the nature garden indoor plants and different animals and invertebrates. This pamphlet will be of interest to the reader exploring how Froebel's educational philosophy on nature study has been adapted and expanded in modern times, and how some of his ideas have permeated the curriculum in place for the education of young children.

#### The early education of children, by Laura L. Plaisted, 1924

**Book** | The purpose of the book is to illustrate principles and examples of work which might be helpful to teachers and readers interested in educational practice. A study carried on in kindergartens and lower classes schools in England, France, Germany and America had the aim of gathering information from as many sources as possible about

generally accepted ideas and practices in schools and to work them and adapt them to an English school. Of particular interest for this list is Chapter VI 'The Study of Nature'. Plaisted suggests nature walks as a way to help stimulate their outdoor interests and enable the children to gain knowledge of the immediate vicinity of the school. The author then goes onto describing an autumn walk that the children could be involved in and some nature talks that the teacher could have with the children. Plaisted also suggests that teachers plan for lessons on animals and plants in the classroom to prepare them for the nature walks. This is an interesting resource for the reader wanting to explore how Froebel's nature studies have been adapted and incorporated into the English curriculum for young children.

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heren Unlage des Comenius, by Johann Amos Comenius; J. C. Gailer, 1832 Book | Further Reading | The text is in German, Latin and French, at the time of publication it was considered to be the first encyclopaedia for children. It includes beautiful pictures of nature, animals and plants that would help the reader to illustrate the points made in the text. The book covers inanimate nature, botanic, zoology, religion and humans and their activities. Although this could be seen as a very challenging text for the reader that can't read any of the languages in which the book is presented in, it is a precious resource in terms of its illustrations and the purpose with which it was written.

The significance of Froebel's ethical teaching for education today, by Eglantyne Mary Jebb, 1953

**Book** | Essential Reading | This pamphlet is an invaluable resource presenting Froebel's educational philosophy in an accessible manner. Miss Jebb illustrates in a lecture for Claude Montefiore the significance of Froebel's ethical education in relation to the modern times. It is fascinating to see how the issues discussed are still very much true today. This is an important resource for the reader wanting to have general and accessible information on Froebel's philosophy. Furthermore, Miss Jebb also discusses the place that religion had in Froebel's thinking, Froebel's philosophy is also contextualised with the thinking of Freud, Wordsworth and Dewy. Through the text there are references to Froebel's education of man and other of his pioneering works.

**Escher: with a complete catalogue of the graphic works**, by F. H. Bool; J. L. Locher; M. C. Escher, c1982

**Book** | The work of Escher revolves around close observation of nature. During the time spent in Italy in the countryside he concentrated on observing nature in order to reproduce

the flora and fauna around him and improve his drawing skills. When observing his lithography it is apparent how strongly nature featured in his work, in some later work he was intent in reproducing crystals and flora and fauna observed heavily feature in his work. In 1898, Escher was a self-proclaimed graphic artist and self-denounced studio artist. He became fascinated with the geometric processes of filling the plain (tessellation) and his imagery took a biased towards asymmetrical natural forms of which insects were often his subject matter. He made the comment that insects are generally best recognized from above; his prints reflecting this belief. The Mediterranean climate, landscapes and light would be a source of inspiration for a great number of drawings and sketches. The natural and open landscapes of the Amalfi Coast, the mountains of Calabria and Sicily as well as the towns and villages of Tuscany would feature prominently in his drawings. Escher drew cites and monuments, natural areas and invented landscapes, night and day scenes, which he came upon in his travels and which he carried out with extraordinary virtuosity as well as various lithographic and woodcut techniques. This resource, although not directly mentioning Froebel, will be of interest to the reader searching for links between Froebel's nature studies and observations of nature represented in art.

**Sydney Kindergarten Training College magazine**, by Sydney Kindergarten Training College **Journal** | In the journal an article titled 'Nature Study in the Kindergarten' explores the importance for children to grow up loving nature. The author illustrates that the child will love nature without effort but it is the job of the teacher to foster and guide his love of nature for it to deepen and develop. The author also states that nature studies are also possible in free kindergartens which notoriously do not have much outdoor space available for the children. In this piece the nature studies are also linked with the use of rhythms and games, these are ways for children to express their interest in nature by other means. This resource will be of use to the reader wanting to explore how Froebel's educational ideas were being interpreted and adapted overseas in a context much different from the one in which Froebel lived.

Extending thought in young children: a parent-teacher partnership, by Chris Athey, 2007 Book | Essential Reading | The book describes analyses and gives detailed results of a five-year 'Early Education Project' carried out at the Froebel Institute, Roehampton. The findings provide support for the efficiency of early education as supporting and promoting children's development, furthermore they show that early learning has its own recognisable and valid characteristics. The study also provides evidence that curriculum content offered to children is selectively assimilated by them to developing forms of thought. The second edition of the book illustrates how the finding of the 'Early Education Project' have influenced practitioners and academics to advance a pedagogy based on the identification of the positive aspects of cognition in young children. Although this book does not directly make links with Froebel's nature study it constitutes an essential reading in order to understand how Froebel's philosophy has influenced many generations of practitioners in considering what children can do rather than what they cannot do as the start of their pedagogy.

People Under Three : Play, work and learning in a childcare setting, by Sonia Jackson, 2015 Book | Further Independent Study | This resource translates child development theory and research into everyday practice. Focussing on the group day care of very young children, it is designed specifically for those who look after them day by day, as well as policy makers, administrators and the managers of child care services. This new edition has been completely updated to take account of the expansion and radical changes which have taken place in child care provision since the book was first published and includes new chapters on assessing the quality of care and short-term and intermittent care. Of particular interest for the list is chapter 11 'Out of Doors', in this chapter the authors provide a rational for children's learning outdoors and give practical advice on how the outdoor space can be better utilised by practitioners and children. By providing garden equipment the children and practitioners can share the upkeep of the plants leading the children into conversations about nature and the caring of plants. Children can also learn about living things and explore the outdoor environment using magnifying glasses in order to see insects and plants in more detail. Play outdoors in every season is explored and practical advice is given on how to plan the outdoor area for young children and provide outings and activities to enhance their learning. Although this is resource does not make a direct link with Froebel's philosophy, the importance of nature for children's play is clear and links can be drawn from the reader to Froebel's ideas about nature play. This resource will be of interest to the reader trying to draw links between Froebel's philosophy and other modern educational methods.