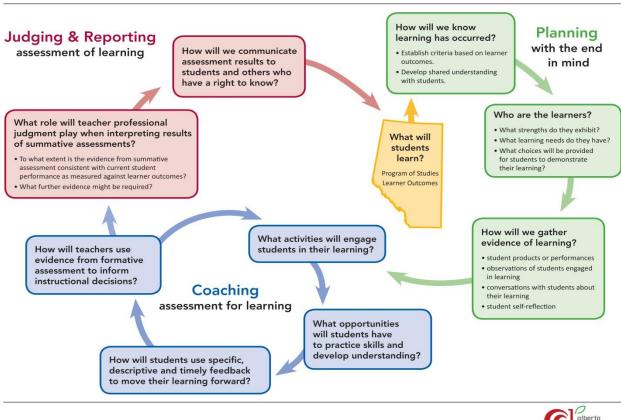
## NONTRADITIONAL ASSESSMENT OF YOUNG CHILDREN'S LEARNING & DEVELOPMENT

## ANNOTATED BIBLIOGRAPHY

A world-wide research base confirms the positive impact that formative assessment has on student learning. In a play-based environment, evidence of learning can be gathered through student products or performances, observations of students engaged in their learning, conversations with students about their learning, and student self-reflections. It is essential that assessment tasks in early learning environments be consistent with the developmental characteristics of young children and hence, a focus on nontraditional assessment would be the norm rather than the exception.

Twenty articles have been reviewed in this bibliography. Within each annotation, a specific connection has been made to questions from the <u>AAC Key Visual</u>, a representation of the essential elements of sound assessment practice.

## AAC KEY VISUAL: ASSESSING STUDENT LEARNING IN THE CLASSROOM

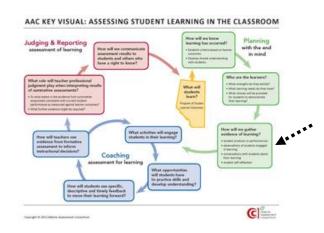


Copyright © 2012 Alberta Assessment Consortium

Ashbrook, P. (2011). Measuring Learning. Science & Children, 48(9), 20-21.

This article by author and science educator, Peggy Ashbrook, describes learning about measurement and counting as requisite skills for young children having the ability to collect data and to recognize patterns in that data. An experiential approach is recommended and a sample lesson plan for teaching young children about temperature change is included. The importance of teacher-student dialogue is also stressed.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? The use of individual and group conversations between students and teacher is the primary assessment strategy described in this article. The author contends that such discussion is important when working with young children, groups of developmental levels typically vary. Students also represented their understanding through drawings and the use of nonstandard units of measure (blocks, length of beads, hands).



Science & Children is a peer reviewed journal focused on praxis (research informing practice, practice informing research). Peggy Ashbrook is the author of Science is Simple: Over 250 Activities for Preschoolers and teaches preschool science in Alexandria, Virginia.

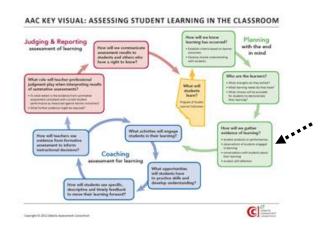
This article may be located electronically through any NEOS library or for purchase through the National Science Teachers Association at

www.nsta.org/publications/browse\_journals.aspx?action=issue&thetype=all&id=10.2505/3/sc11\_048-09

Beneke, S., Ostrosky, M., & Katz, L. (May 01, 2008). Calendar Time for Young Children: Good Intentions Gone Awry. *Young Children*, 63(3), 12-16.

This article examines the developmental appropriateness of calendar routines with young children who are not always ready to grasp the concepts of time and dates (temporal understanding). The authors provide a number of evidence-based performance tasks as alternatives: picture schedules, classroom journals, documentation displays, linear representations, games, and project work.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? The use of conversation to help make visible young children's understanding of events and time is discussed. The authors recommend the use of picture schedules, iournals (based digital classroom on photographs), documentation displays, linear representations, games, and project work as prompts to further engage students in conversation with each other and with the teacher.



Young Children is a peer reviewed professional journal aimed at early childhood educators. All three authors hold doctorates in the field of Education and hold professorships at American universities. Lilian Katz is particularly well known in the area of early childhood education and has published extensively on the Project Approach to learning (Katz & Chard, 2000, Engaging Children's Minds: The Project Approach, Ablex).

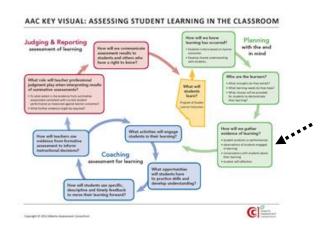
This article may be located electronically for free access at

http://www.naeyc.org/files/tyc/file/CalendarTime.pdf

Brenneman, K., & Louro, I. (October, 2008). Science Journals in the Preschool Classroom. *Early Childhood Education Journal*, 36(2), 113-119.

This article considers the use of science journals as tools for supporting and assessing the development of science process skills and literacy in the early childhood classroom. Drawing on a wide range of research literature, the article discusses the practicalities of using of science journals in relation to early childhood development. Samples of student work support the authors' conclusions that science journals provide opportunities for students to represent their observations: as artists, as writers, and as scientists. The development of descriptive vocabulary, the conceptualization of new ideas, and the ability to ask relevant questions are able to be assessed through conversations about the journal entries.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of *learning?* The science journals are examples of student products that can be assessed as stand-alone evidence. However, the authors suggest that the addition of conversation with students about their journal entries adds another dimension in gaining a more robust and personalized snapshot of student achievement.



The Early Childhood Education Journal is an academic journal online publication of Springer Science & Business Media B.V. Kimberly Brenneman is a professor in the Department of Psychology at Rutgers University in New Jersey, and Ines Louro is a professor of Child Development at the same institution. This research was supported by a National Science Foundation Grant.

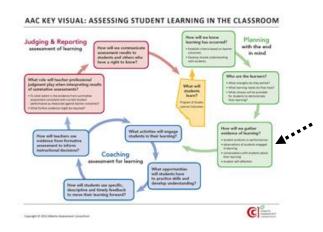
This article may be located electronically through any NEOS library or for free access at

http://yunny.pbworks.com/f/esljournal2.pdf

Brewer, R.A. (June 06, 2010). The Canada Goose Project: A First Project with Children Under 3. *Early Childhood Research & Practice*, 12(1).

This article documents the author's application of the Project Approach to a learning experience designed for children under three years of age. The Project Approach (Katz & Chard, 2000, Engaging Children's Minds: The Project Approach, Ablex) draws heavily from the constructivist paradigm and the Reggio Emilia approach to teaching and learning. The article represents a case study supported by diagrams and photographs. The author also shares excerpts from her field journal to further illustrate central points. Although the focus is on very young children, the tenets of the article are transferable to the early childhood classroom.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? Observations of students engaged in learning and conversations with students about their learning are the key sources of evidence described in this case study. These insights were captured in the author's field journal. Student products such as sketches, drawings, and maps provided additional evidence of learning. Video clips embedded in the article provide additional support for the use of observation and conversation as assessment tools.



Early Childhood Research & Practice is a peer reviewed scholarly journal online. The author is a graduate student in the area of early childhood education and an independent consultant for preschool teachers. She owns and operates her own preschool in the state of Ohio.

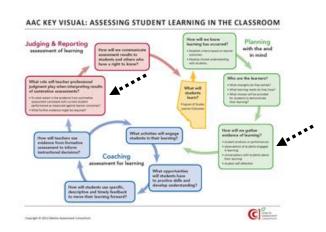
This article may be located electronically through any NEOS library or for free access at

www.ecrp.uiuc.edu/v12n1/brewer.html

Christ, T. (January 01, 2011). Moving Past "Right" or "Wrong" Toward a Continuum of Young Children's Semantic Knowledge. *Journal of Literacy Research*, 43(2), 130-158.

This article presents research on vocabulary development as a major component of early childhood education and some of the associated assessment challenges. Rather than a dichotomous approach ("right" or "wrong" answers), the author proposes a continuum to measure incremental growth in children's semantic knowledge. This model is grounded in research from the fields of Education, Linguistics, and Educational Psychology. Although the author uses a more classical approach to research, the work includes a wide range of practical suggestions for implementation.

Assessment **Possibilities:** This article illustrates possibilities for answering the questions, How will we gather evidence of learning?, and, What role will teacher professional judgment play when interpreting results of summative assessments? The author identifies nineteen categories of children's word knowledge and groups those clusters into five hierarchically related levels: understanding, schematically related understanding, contextual understanding, decontextual understanding, and paired These levels are expressed understanding. along a continuum to assist teachers in making professional judgments regarding student progress in language development.



The *Journal of Literacy Research* is a peer reviewed scholarly journal. The author holds a PhD in Literacy Education and is an assistant professor at Oakland University.

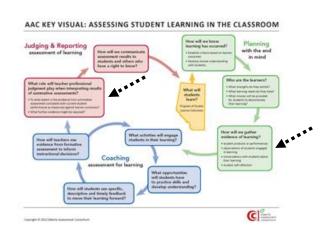
This article may be located electronically through any NEOS library or for purchase at

http://jlr.sagepub.com/content/43/2/130

Dunphy, E. (March, 2010). Assessing Early Learning Through Formative Assessment: Key Issues & Considerations. *Irish Educational Studies*, 29(1), 41-56.

This article considers the imperative for quality formative assessment practices in early childhood classrooms, with a particular emphasis on the necessary interrelationship between curriculum and assessment. The author draws from the research on the characteristics of young learners and the nature of early learning to effectively create the background against which she constructs her central arguments. In her concluding remarks, the author contends that assessment in early childhood is about making the range of children's early learning visible.

**Possibilities:** Assessment This article illustrates possibilities for answering the questions, How will we gather evidence of learning?, and, What role will teacher professional judgment play when interpreting results of summative assessments? The theme of assessment informing teaching teaching involving assessing is woven throughout. The role of teacher observation, the significance of daily teacher-student interactions (conversations), the use of interviewing, the processes of documenting and reflecting, the compilation of portfolios, and the development of narratives are featured as formative assessment strategies. author discusses some of the challenges inherent in the use of formative assessment in early childhood providing contexts, suggestions and encouragement.



*Irish Educational Studies* is peer reviewed scholarly journal. The author, Dr. Elizabeth Dunphy, is a senior lecturer in the area of early childhood education at St. Patrick's College in Dublin.

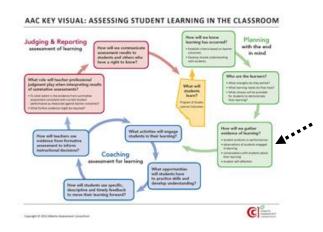
This article may be located electronically through any NEOS library or for purchase at

http://www.tandfonline.com/doi/abs/10.1080/03323310903522685#preview

Espejo, T., & Deters, A. (2011). Area or Perimeter: Using Representations for the Real World. *Ohio Journal of Mathematics*, 63, 11-16.

This article outlines a tactile lesson to assist students (grades three through eight) in developing mathematical skills related to measurement. The authors were particularly focused on helping students to distinguish the mathematical concept of area from the mathematical concept of perimeter. Using a problem solving approach, students engaged in a series of performance based tasks that require them to measure, calculate, and record data. Although the article describes the work in terms of the imperial system of measurement, the idea is easily transferable to the metric system.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? Student products in the way of diagrams and tile models allowed the teachers to consider visual representations of students' learning. As well, conversations between students and teacher were highlighted as being important sources for probing misconception as well as providing meaningful evidence of learning. Photographs and samples of student work help to buttress the authors' central points.



The *Ohio Journal of Mathematics* is an online professional journal published by the Ohio Council of Teachers of Mathematics. Although not peer reviewed, its strong reputation is grounded in praxis. Ashley Deters is a classroom teacher and is working towards a Master of Education in Elementary Mathematics at Miami University. Tracy Espejo holds a Master of Education in Elementary Mathematics and teaches in the Miami area.

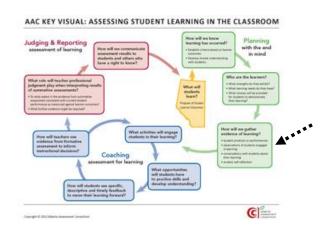
This article may be located electronically through any NEOS library and may be available for purchase through the Ohio Council of Teachers of Mathematics at

http://www.ohioctm.org/publications.htm

Foster, C. (ed.). (May, 2012). Butterfly Gardens. *Teaching Children Mathematics*, 18(9), 526-529.

This article describes the application of a mathematical problem solving approach to the construction of a butterfly garden at an elementary school. The concepts of area, perimeter, and shape are explored as students experiment with designing different shapes and dimensions of a space where butterflies could feed. Calculating costs also requires students to use mathematical skills.

Assessment Possibilities: This article illustrates possibilities for answering the question, *How will we gather evidence of learning? Student products* in the way of diagrams and tile models-to-scale allow the teacher to consider visual representations of students' learning. Student calculations and verbal explanations provide additional assessment information.



*Teaching Children Mathematics* is a professional academic journal published by the National Council of Teachers of Mathematics. Colleen Foster is a regular editor of the *Problem Solvers* feature of this journal. Ms. Foster is a grades 3-8 support teacher for the Winnipeg School Division of Manitoba, Canada.

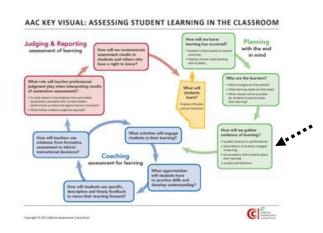
This article may be located electronically through any NEOS library and is available for purchase through the National Council of Teachers of Mathematics at

http://www.nctm.org/publications/article.aspx?id=33150

Harris, M.E. (May 01, 2009). Implementing Portfolio Assessment. Young Children, 64(3), 82-85.

This article considers the rationale for and successful use of portfolios as an element of authentic assessment. While the content may be more of a review for some educators, the author does provide a thoughtful and concise summary of the rationale for utilizing portfolios along with several practical suggestions for effective implementation. There is also an emphasis on communication between teachers, students, caregivers, and administrators. This article would be suitable for teachers new to the profession or for early childhood educators seeking to review their current assessment practices.

Assessment **Possibilities:** article This illustrates possibilities for answering the question, How will we gather evidence of *learning?* The author notes early in the article that, "A great portfolio tells a really good story of a child's progress". Harris provides a sound rationale for the use of portfolios to strategically compile evidence of student achievement, noting key elements to include work samples, systematic in a portfolio: observations, anecdotal records, checklist/inventory of specific observable behaviours and traits, rating scale, interviews. Practical suggestions for successful implementation noted are throughout the article.



*Young Children* is a peer reviewed journal published through the National Association for the Education of Young Children. The author, Mauree Harris, is an early childhood educator whose writing is focused on practical implementation with classroom teachers as the primary audience.

This article may be located electronically through any NEOS library or for purchase through the National Association for the Education of Young Children at

www.naeyc.org/yc/pastissues/2009/may

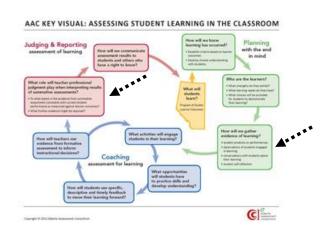
or for free access at

http://lase2.wikispaces.com/file/view/implementing+portfolio+assessment.pdf

Jones, J. (May 01, 2011). Assessing Young Children's Learning and Development. *Principal*, 90(5), 12-15.

This article considers the rapid, yet often episodic, development of young children and the challenges associated with effectively assessing their learning. The author notes early in the article that *the process of assessment is different from the common perception of testing*. Grounded in a holistic understanding of early childhood development, the article provides practical suggestions for assessing the learning of young children, beginning with teacher observations and documentation of those observations.

Assessment **Possibilities:** This article illustrates possibilities for answering the questions, How will we gather evidence of learning?, and, What role will teacher professional judgment play when interpreting results of summative assessments? The author describes the importance of observation and effective documentation within comprehensive assessment system, but also emphasizes the role that administrative leadership can play in supporting that work by setting a particular tone that values such assessment practices and by allocating resources.



*Principal* is a professional journal published through the National Association of Elementary School Principals (NAESP) in Alexandria, Virginia. Although not a peer reviewed journal, it is a well read and well respected source. The author, Jacqueline Jones, is the senior advisor to the secretary for early learning at the U.S. Department of Education.

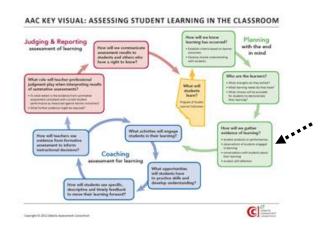
This article may be located electronically through any NEOS library or for purchase through the National Association of Elementary School Principals at

www.naesp.org/principal-mayjune-2011-early-childhood/principal-mayjune-2011-early-childhood

Kurz, T. (May, 2012). A Super Way to Soak in Linear Measurement. *Teaching Children Mathematics*, 18(9), 536-541.

This article describes a performance based task involving student experimentation with water shooters. Students are challenged to test advertising claims about the distance that water travels from the shooter. They design and carry out an investigation, measuring the distance the water travels over a concrete or blacktop surface. This also requires them to use knowledge of dependent and independent variables, fair tests, and replicable results.

Assessment Possibilities: This article illustrates possibilities for answering the question, How will we gather evidence of learning? The inquiry process may be recorded in a student science or mathematics journal. Charts, graphs, and diagrams are examples of student products for assessment. Observations of students as they work through the inquiry process and conversations with students provide additional evidence of student learning.



Teaching Children Mathematics is a professional academic journal published by the National Council of Teachers of Mathematics. Terri Kurz is an assistant professor at Arizona State University's Polytechnic campus where she teaches mathematics methodology courses.

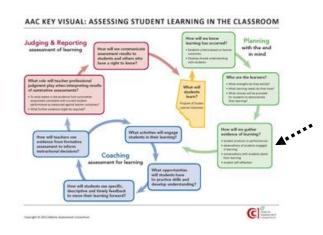
This article may be located electronically through any NEOS library and is available for purchase through the National Council of Teachers of Mathematics at

http://www.nctm.org/publications/article.aspx?id=33154

Lyon, A., & Bragg, L. (2011). Food for Thought: The Mathematics of the Kitchen Garden. *Australian Primary Mathematics Classroom*, 16(1), 25-32.

This article provides informative insights into the performance based application of mathematics and science concepts (measurement, scale, plant growth and life cycles of plants) to the design, construction, planting, and harvesting of a produce garden on the school grounds of Wooranna Park Primary School, Australia. The students' daily journal entries provided the context for classroom instruction in mathematics, while awareness of sustainable living, types of plants, and healthy eating were subtopics for science discussions. The tenets of performance based assessment are featured throughout.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of The authors describe learning? importance of conversations with students, stemming from open-ended questions. **Observations** of students engaged measuring, calculating, and grappling with the concept of scale are also noted. A sample of a student sketch of a to-scale garden plan is an example of a student product. Photographs of students working on the garden help to reinforce that this is an example of a performance based unit of study with real world applications. Students taking on the roles of horticultural scientists is an added feature of this authentic assessment task.



Australian Primary Mathematics Classroom is a non-peer reviewed professional journal for early childhood educators. It is a well read and well respected source of practical suggestions for educators, supported by research. Anthony Lyon is an education consultant with the Victorian government (Australia), and Dr. Leicha Bragg is Senior Lecturer at Deakin University's School of Education. The construction of the kitchen garden was supported in part by a grant from the Stephanie Alexander Foundation.

This article may be located electronically through any NEOS library or at

http://dro.deakin.edu.au/view/DU:30034427

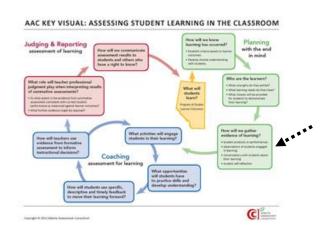
or for free access at

http://dro.deakin.edu.au/eserv/DU:30034427/bragg-foodfor-2011.pdf

McFadyen, J. (January 01, 2012). A Rain Garden for Our School: Becoming Environmental Stewards. *Social Studies and the Young Learner*, 24(3), 4-7.

This article represents an informal case study of one elementary school's work to construct a rain garden in response to the students' concerns about storm water collecting mud and oil enroute to Saginaw Bay (Michigan). From their previous studies, they had learned that wetlands can act to slow and filter storm runoff. Observing dirty water run from the school's parking lot into the sewer system, the students proposed the construction of a marsh, or rain garden, on the school grounds. Carrying out research, planning their rain garden, creating an awareness campaign, inviting experts to provide information and advice, and actually constructing a community based rain garden are all described in this performance based unit around a theme of environmental stewardship.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of *learning?* Student products and performances from the inquiry process (sketches, diagrams) the and from awareness campaign (multimedia presentations, brochures, skit presentation) were sources of assessment information. As well, student-to-student and student-to-teacher conversations evidence of learning. A sample of student work is embedded in the article and acts to support the author's narrative.



Social Studies and the Young Learner is a peer-reviewed academic journal published by the National Council for the Social Studies. Joy McFayden is a retired fifth grade teacher who taught at Hampton Elementary School in Bay City, Michigan. She is currently a teacher consultant with the Michigan Geographic Alliance and with the Michigan Environmental Education Curriculum Support (MEECS).

This article may be located electronically through any NEOS library and is also available for preview and purchase at

http://www.scribd.com/doc/79854634/A-Rain-Garden-for-Our-School-Becoming-Environmental-Stewards%E2%80%93SSYL-Jan-Feb-2012

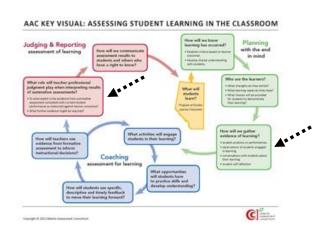
or for free access at

http://www.saginawbaywin.org/uploads/Raingardens\_Article.pdf

McFarland, L. (March 08, 2009). Anecdotal Records: Valuable Tools for Assessing Young Children's Development. *Dimensions of Early Childhood*, 36(1), 31-36.

This article defines the purpose of assessment as the gathering of meaningful information about children in order to make informed decisions to benefit their education and development. The author recommends the use of a combination of assessment strategies but focuses on observational narrative techniques (anecdotal records) to help inform instruction, provide information to families, and to track development. A helpful article for those new to anecdotal record taking or for those wishing to review their current practices.

**Possibilities:** Assessment This article illustrates possibilities for answering the questions, How will we gather evidence of learning?, and, What role will teacher professional judgment play when interpreting results of summative assessments? A clear rationale, supported by research literature, describes why anecdotal record taking can be a powerful assessment tool to serve a variety of purposes in relation to information gathering. Practical suggestions for taking, managing, and interpreting anecdotal records reinforce the importance of professional judgment.



Dimensions of Early Childhood is a peer reviewed professional journal for early childhood educators. Published by the Southern Early Childhood Association, it is a well read and well respected source of practical suggestions for educators, supported by research. The author, Dr. Laura McFarland, is Lecturer of Early Childhood in the School of Teacher Education at Charles Sturt University in Australia. Prior to that, she lectured at the University of Texas.

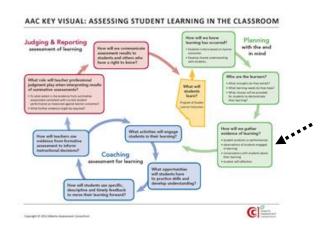
This article may be located electronically through any NEOS library or for purchase through the Southern Early Childhood Association at

www.southernearlychildhood.org/publications.php

McGrail, E., & Davis, A. (February 15, 2011). The Influence of Classroom Blogging on Elementary Student Writing. *Journal of Research in Childhood Education*, 25(4), 415-437.

This article shares the results of a qualitative case study undertaken in a grade five classroom. A qualitative data analysis was applied to the researchers' observations, conversations with students and the teacher, and samples of students' blog posts in order to assess growth in students' attitudes, content, voice, connections and relationships, thinking, and craft. The exercise allowed the students to rethink the writing process and how writing might have different meaning in their lives. The authors have made substantial use of the research literature to extend and support their central thesis. Although this case study involves students in the fifth grade, the concept could be modified to be suitable for younger grades.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? Students' blog posts are products that can yield a good deal of information about learning and about growth in writing skills over time. The authors of the article also suggest that the posts themselves can be used to generate student-teacher discussion, and promote student reflection about the writing process, audience, and the craft of excellent writing. Students' adherence to the roles and traits of responsible blogging was also an important source of assessment information. Samples of students' blog posts and reflections reinforce the authors' central arguments about the value of this performance based assessment task.



The *Journal of Research in Childhood Education* is a peer reviewed academic journal published by the Association for Childhood Education International. Dr. Ewa McGrail is an associate professor of Language and Literacy at Georgia State University's College of Education. Anne Davis is an educator, lecturer, and author of *EduBlog Insights*.

This article may be located electronically through any NEOS library or for purchase through the Association for Childhood Education International at

www.acei.org/volume-25-no-4/the-influence-of-classroom-blogging-on-elementary-student-writing.html

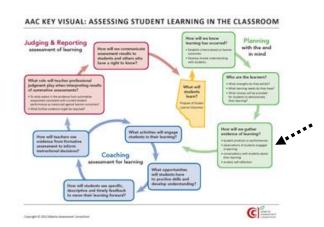
or for free access at

http://www.tandfonline.com/doi/pdf/10.1080/02568543.2011.605205

Myers, D. (March/April, 2012). Constructing a Roman Apothecary Garden. *Primary Science*, 122, 28-31.

This article describes an interdisciplinary performance based task involving students aged seven to eleven years in the construction of a Roman apothecary garden. Role play, understanding plants and their medicinal properties, a bean germination project, and the construction of Roman-Celtic willow huts were the core activities of the unit. The project became a 2012 Rolls-Royce Science Prize finalist.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? Students' scientific drawings, charts, scripts, poetry, written reports, biographical sketches of ancient herbalists, and letters to scientists all provided student products for assessment. Student performances as sources of assessment information included role-plays and debates.



*Primary Science* is a professional journal published in the United Kingdom by the Association for Science Education. Although not a peer reviewed journal, it is a well respected source of practical ideas for early childhood educators. Dr. Debbie Myers is a Teaching Fellow at Durham University.

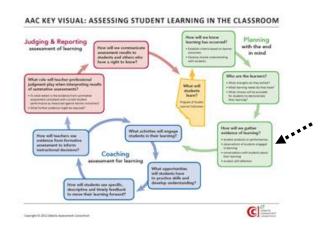
This article may be located electronically through any NEOS library or for purchase through the Association for Science Education at

http://www.ase.org.uk/journals/primary-science

Richards, D. (October 01, 2010). Primary School Permaculture. Primary Geographer, 95(3), 7-9.

This article describes the *Garden Organic for Schools Project* as it was envisioned and lived out at award winning Geoffrey Field Junior School in England. Through sounds, stories, scents, and textures, students engaged in experiential learning in an outdoor classroom/forest to grasp the science concepts of climate change adaptation, life cycle of materials, resource management, and farming. Within this context, they also explored the importance human geography and the significance of sustainable living.

Assessment Possibilities: This article illustrates possibilities for answering the question, How will we gather evidence of learning? Commentary from the classroom teacher specifically describes the importance of conversations with students, and student products. Photographs of students working on the garden and enjoying its produce help to reinforce that this is an example of a performance based unit of study with real world applications.



*Primary Geographer* is a non-peer-reviewed journal for primary educators published by the Geographical Association of the United Kingdom. Its purpose is to assist early childhood educators by providing high quality, interdisciplinary resources related to human and physical geography. Author Dave Richards is a graduate of Cambridge University and coordinator of the UK's *Schools Global Gardens Network*.

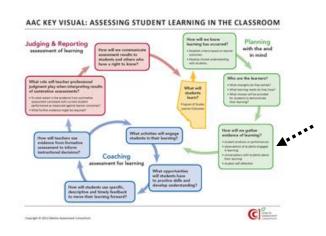
This article may be located electronically through any NEOS library or for free access at

https://docs.google.com/a/concordia.ab.ca/viewer?a=v&q=cache:ppTMxzcTsFEJ:apps.rhs.org.u k/schoolgardening/uploads/documents/Geoffrey%2520Fields%2520Junior%2520School\_1004.p df+&hl=en&pid=bl&srcid=ADGEESivPC28JA34D3YGE1\_mul4mzAOg02JLMOmKuQQxAdNIaGOO8f5ifdIRC11BUKuwQYObluIQG57572ulbJOVSCLOVrXbsDkUcvWt7XV8y8t21BY-nitfEJc45Svi1Basz4X1SB7B&sig=AHIEtbS5sO9M08dJ2TWx13\_xN6-9\_MNZYw

Soep, E. (September, 2005). Critique: Where Art Meets Assessment. *Phi Delta Kappan*, 87(1), 38-63.

This article provides a comprehensive and insightful analysis of the challenges associated with assessing the creative process. Assessment is discussed within the context of self-assessment from an artistic stance and how educators might draw on that to shape their own assessment practices. Soep's five year action research uses a case study approach to illustrate her key arguments by showcasing examples of students participating in audio documentary at *Youth Radio* in Berkeley, California. The article balances the research with suggestions for practical application and the concepts presented would be adaptable to an early childhood classroom.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? The author emphasizes the commonality between assessment and art, noting that, "Assessment, too, captures and records something elusive - that slipperv and shape-shifting outcome that is student learning." Ongoing student reflection is grounded in artistic critique/self-assessment, and forms the foundation for evidence of learning. Such reflection may be in the form of conversation between student and assessor. including Student work. an audio documentary for radio, provides examples of student products and performances for assessment.



*Phi Delta Kappan* is a peer reviewed journal focused on praxis (research informing practice, practice informing research). The author, Elisabeth Soep, is the education director and senior producer of *Youth Radio* and her research was supported in part by the Robert Bowne Foundation and the Open Society Institute.

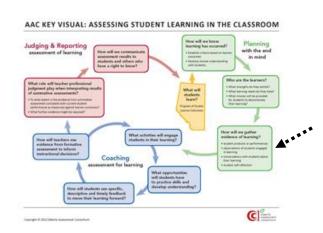
This article may be located electronically through any NEOS library or for purchase at

www.kappanmagazine.org/content/87/1/38.abstract

Spencer, C., & Hall, E. (Fall, 2010). Dramatic Play as a Context for Children's Investigation of Size and Scale. *Early Childhood Research & Practice*, 12(2).

This article is an informal case study of the author's experience in an early childhood classroom with children engaged in an extensive inquiry-based unit. This work involved the students in creating a representation of a 3-dimensional underwater environment. The concepts of size and scale and the skills of design, problem solving, construction, and collaboration were explored through performance based tasks. Photographs of young learners illustrate the author's description of the learning and assessment processes.

**Possibilities:** Assessment This article illustrates possibilities for answering the question, How will we gather evidence of The creation of a mural on learning? plexiglass (later hung in the local public library) provided a *student product* as a source of assessment information. This piece of artwork was a collaborative endeavour that reflected students' research and conversations about underwater environments. Later, the mural became the backdrop for dramatic play. The authors observed the children at work and engaged them in conversation to further prompt and probe their thinking.



Early Childhood Research & Practice is a peer reviewed scholarly journal online. The principal author, Christy Spencer, is a mentor teacher in an early childhood classroom. Ellen Hall is the founder and executive director of Boulder Journey School in Colorado. She is also the director of the Teacher Education Program developed through a partnership with the University of Colorado Denver and the Colorado Department of Education.

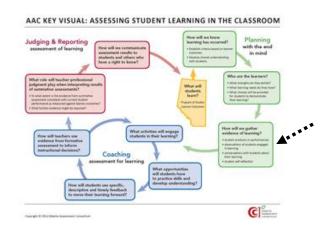
This article may be located electronically through any NEOS library or for free access at

www.ecrp.uiuc.edu/v12n2/spencer.html

Wheeler, C., & Blank, J. (Fall, 2011). Studying the Strawberry Farm: Investigation and Representation in a Standards-Based Kindergarten. *Early Childhood Research & Practice*, 13(2).

This article documents an experiential interdisciplinary unit based on the Project Approach (Katz & Chard, 2000, *Engaging Children's Minds: The Project Approach*, Ablex). The descriptive text is includes diagrams, photos, and samples of children's work while illustrating alignment to curriculum and assessment standards. The authors' reflections provide insights some of the challenges and rewards of utilizing this performance based approach to instruction and assessment.

Assessment **Possibilities:** This article illustrates possibilities for answering the question, How will we gather evidence of learning? Conversations between students and with the teacher allowed the authors to gain initial insight into students' background knowledge and experience with the topic, as well as to gauge their level of interest. Artifacts such as sketches and students' field notes were examples of student products used for ongoing assessment. The authors also observed the students engaged in their Photographs, short transcripts of learning. student-to-student dialogue, and portions of students' interview with a visiting expert help to illustrate a robust use of assessment throughout this unit.



Early Childhood Research & Practice is a peer reviewed scholarly journal online. Charlene Wheeler is an early childhood educator and graduate student at the University of South Florida. Jolyn Blank is an assistant professor of early childhood education at the University of South Florida.

This article may be located electronically through any NEOS library or for free access at www.ecrp.uiuc.edu/v13n2/wheeler.html