

ARLINGTON PUBLIC SCHOOLS  
**DEPARTMENT OF INSTRUCTION**  
Arlington, Virginia

Memorandum

September 13, 2006

TO: Robert G. Smith, Superintendent

FROM: Mark A. Johnston, Assistant Superintendent, Instruction

SUBJECT: Inventory of Instructional Approaches

The attached Inventory of Instructional Approaches, to be presented to the Board on September 21, 2006, was created in response to Objective 3.1 of the 2005-2011 Strategic Plan, which states: "Inventory instructional approaches (e.g., differentiated instruction, Understanding by Design, teaching for meaning) that are responsive to students' talents, interests, and challenges...." It is staff's intent to keep the Inventory current to reflect instructional practices used by Arlington teachers and which also provide the basis for professional development activities.

The Inventory will serve as an important communications tool for both staff and community. It will also be the basis for our development of a framework of instructional approaches that we will be planning this year.

Please let me know if you have any questions.

Attachment

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# **Inventory of Instructional Approaches**

**Department of Instruction  
September 2006**

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For more information contact the Office of Professional Development, 703.228.2113

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## Inventory of Instructional Approaches

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### Introduction

The inventory of instructional approaches was developed in response to The 2005-2011 Strategic Plan.

**GOAL 3: RESPONSIVE EDUCATION**--Prepare each student to succeed in a diverse, changing world through instruction and other school experiences responsive to each student's talents, interests, and challenges.

**Objective 3.1:** Inventory instructional approaches (e.g., differentiated instruction, Understanding by Design, teaching for meaning) that are responsive to students' talents, interests, and challenges, and create a framework that systematically expands opportunities.

**Indicators:**

2005-2006--Inventory completed

While intended to be a useful and practical document, the inventory is neither a comprehensive study of instructional practice, nor a "how-to-do-it" guide. Rather, this document is intended to be of assistance to educators by:

- generating discussion among teachers about instructional approaches;
- promoting reflective thinking among teachers about instructional decisions;
- affirming the art, as well as the science, of teaching; and,
- acting as a catalyst for further professional development.

2006-2007—Framework to be developed

The framework's purpose will be to:

- define what we value as appropriate, effective, and engaging instruction
- affirm the integral position of instruction in meeting the objectives of the curriculum;
- provide support for teachers in extending their range of instructional approaches;
- provide support for teachers in meeting the challenges associated with curricular changes; and,
- provide curriculum writers with a design for integration of curriculum and instruction.

### Inventory Development History

- Supervisor discussion of understandings of instructional models, strategies, and skills
- Supervisors and specialists provided input for the instructional approaches document. This is a listing of Instructional Approaches that the APS Department of Instruction deem to be valuable in a classroom that is responsive to students' learning needs, talents, and challenges
- Supervisors continue to stand behind the APS Best Practices Document, which is structured around Charlotte Danielson's Framework for Teaching, as the document is used to evaluate high quality instruction

### Assessment

The value of assessment in instruction is recognized. The instructional approaches are the ways we deliver instruction and assessment is used to inform that instruction. Educators use a variety of assessments in order to be responsive to students' needs. An inventory of state, county, and classroom assessments will be developed in the future as an integral part of the Instructional Approaches Framework.

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## Inventory of Instructional Approaches

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### Definitions

The following definitions are used for this inventory.

### Instructional Approaches

Instructional Approaches include models, skills, strategies, and other formal pedagogical structures used for instruction. Instructional Approaches determine the structure a teacher may take to achieve learning objectives. Approaches are used to create learning environments in which the teacher and learner will be engaged in order to enhance student achievement.

- **General Instructional Approaches**  
Some instructional approaches are overarching and apply to most teaching situations. These have been categorized as General Instructional Approaches.
- **Specific Instructional Approaches**  
While they may be used in a variety of settings or content areas, some instructional approaches are associated with specific content areas or programs. These have been categorized as Specific Instructional Approaches.
- **Strategies Embedded within Instructional Approaches**  
Strategies are embedded into or a part of one or several General Instructional Approaches or Specific Instructional Approaches.

### Inventory Structure

This Inventory of Instructional Approaches is organized alphabetically by the three categories defined above:

- General Instructional Approaches
- Specific Instructional Approaches
- Strategies Embedded within Instructional Approaches

Following the Inventory is the APS Best Practices document.

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## Inventory of Instructional Approaches

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### General

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This section identifies and defines the **General Instructional Approaches** alphabetically. General Instructional Approaches are overarching and apply to most teaching situations. These approaches apply K-12 unless noted otherwise.

#### **Competency Based Education**

An approach where the focus is on the students' ability to demonstrate proficiency or mastery of the course materials. Competencies are identified and students are tested on the identified competencies.

#### **Cooperative Learning**

Cooperative learning can be summarized as "the instructional use of small groups so that the students work together to maximize their own and each other's learning." Cooperative learning groups proliferate in every educational setting, regardless of the age or educational level of the students present. In cooperative learning situations, there is a "positive interdependence among students' goal attainments; students perceive that they can reach their learning goals if and only if the other students in the learning group also reach their goals."\*

#### **Differentiation or Differentiated Instruction**

Differentiation is a process of teaching and learning that begins with the premise that not all children are alike. When differentiating instruction, teachers

- plan and carry out varied approaches to
- content (what students learn)
- process (how students learn)
- product (how students demonstrate what they've learned)
- anticipate and response to student differences in
- readiness (prior mastery of knowledge, understandings, and skills)
- interest (a student's curiosity and passion that "hooks" the learner into wanting to know, understand, or do more)
- learning profile (how the student prefers to learn)
- maintain a teaching philosophy and mindset that a teacher acts responsively to a learner's needs, i.e., "meeting the student where he/she enters the classroom"

#### **Hands-on Learning**

Hands-on learning provides learning by doing--helping a student to acquire knowledge and skills outside of books and lectures. Learning can occur through work, play and other life experiences.

Accomplished teachers include plenty of hands-on learning experiences, especially in science and math, to ensure student understanding of new and unfamiliar concepts. Hands-on learning can also be used to drive assessment so that teachers can measure both factual knowledge and comprehension.\*

#### **Learning Communities**

According to the Southeast Educational Development Laboratory, "In education circles, the term learning community has become commonplace. It is being used to mean any number of things, such as extending classroom practice into the community; bringing community personnel into the school to enhance the curriculum and learning tasks for students; or engaging students, teachers, and administrators simultaneously in learning - to suggest just a few." Accomplished teachers welcome parents and community members into their classrooms to enrich their instruction. NCREL's essay on Schools as Learning Communities states that "These schools (schools that become learning communities) achieve enhanced education for all citizens, both those 'inside' and 'outside' the school walls." Accomplished teachers view the parents and school community as educational partners. They work closely with them as members of the educational team and children benefit greatly as a result.\*

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## Inventory of Instructional Approaches

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### General

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#### Metacognition

Metacognition is the notion of thinking about one's own thoughts. Those thoughts can be of what one knows (i.e., metacognitive knowledge), what one is currently doing (i.e., metacognitive skill), or what one's current cognitive or affective state is (i.e., metacognitive experience). The ability to be conscious of and, to some degree, control one's own thinking. Thinking about one's own thinking. Examples are: when one can track progress in solving a multistep problem or when one realizes that they have been looking at a page in a book without following the meaning and backtrack until the place is found where their mind began to wander.

#### Scaffolding

The way a teacher provides support to make sure students succeed at complex tasks they couldn't do otherwise. Most teaching is done as the students go about the task, rather than before they start. For example, as a group of elementary students proceed to publish a student newspaper, the teacher shows them how to conduct interviews, write news stories, and prepare captions for photographs. Because the teacher supports the students to make sure they don't fail in their effort, it reminds researchers of the scaffolding that workers sometimes place around buildings. As the students become more skillful, the teacher gives them more responsibility, taking away the scaffolding when it is no longer needed. (This gradual withdrawal has been called "fading.")

#### Socratic Seminar

Socrates was convinced that the surest way to attain reliable knowledge was through the practice of disciplined conversation. He called this method dialectic. Di-a-lec-tic (noun) means the art or practice of examining opinions or ideas logically, often by the method of question and answer, so as to determine their validity. A Socratic Seminar is a method to try to understand information by creating a dialectic in class in regards to a specific text. In a Socratic Seminar, participants seek deeper understanding of complex ideas in the text through rigorously thoughtful dialogue, rather than by memorizing bits of information. At the primary level, this instructional approach is addressed through shared inquiry questioning and reading strategies associated with Junior Great Books. (See Paedeia Model)

<http://www.mcps.k12.md.us/schools/wjhs/depts/socialst/ams/Skills/SocraticSeminar/SocraticSeminarIntro.html>

#### Student Teacher Relationships

Teacher development emphasis that helps teachers become aware of how the interactions with students impact student achievement. Arlington Public Schools uses Teacher Expectations Student Achievement (TESA) as a means to address improving student teacher relationships. TESA helps teachers practice research based behaviors that have been proven to improve teacher/student interactions, which lead to improved student achievement. TESA [Teacher Expectations and Student Achievement] identifies 15 different teacher interactions that are both supportive and motivating in regard to relationships with students. These 15 affective techniques are identified because they are operationally defined; they are observed in typical classrooms; and they have been measured in classrooms. These interactions are divided into three strands: response opportunities, feedback, and personal regard. The fifteen interactions are 1. equitable distribution of response opportunity, 2. individual helping, 3. latency, 4. delving, 5. higher level questioning, 6. affirm/correct, 7. praise of learning performance, 8. reasons for praise, 9. listening, 10. accepting feelings, 11. proximity, 12. courtesy, 13. personal interest and compliments, 14. touching, and 15. desisting.

#### Teaching for Meaning (Understanding by Design, UbD)

When using the teaching for meaning or Understanding by Design Framework, teachers

- design lessons that address the long- and short-range goals and objectives of the curriculum
- design lessons and units with the end goals in mind
- develop units and lessons which incorporate appropriate and varied formative and summative assessments that are used to help differentiate instruction
- prepare lessons for delivery of instruction that is relevant, engaging, and challenging

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## Inventory of Instructional Approaches

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### Specific

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This section identifies and defines the **Specific Instructional Approaches** alphabetically. Specific Instructional Approaches are more specific to a content area or program. These approaches apply K-12 unless noted otherwise.

#### **Comprehensive Literacy**

Comprehensive Literacy includes the following instructional approaches: modeled, shared, guided and independent reading & writing. A comprehensive literacy program includes a range of literacy activities, carefully selected materials for each activity, and a responsive teacher who knows how to structure literacy interactions that move children to higher levels of understanding.

1. **Reading Aloud:** The teacher reads aloud to the whole class or small groups. Carefully selected children's literature is used, and the collection contains a variety of genres that represents our diverse society. The teacher incorporates content area text that is appropriate for each grade level. Favorite texts, selected for special purposes, are reread many times.
2. **Shared Reading:** Using enlarged text that all students can see, the teacher involves the students in reading together. The process includes an introduction of text; an initial reading with explicit teaching and discussion; and rereading opportunities. Reading/rereading opportunities include big books, poems, songs, retellings, alternative texts and student work.
3. **Guided Reading:** The goal of guided reading is to foster student growth towards independence. The teacher works with a small group of students who have similar reading needs. The teacher selects and introduces new books and supports students reading the complete text, making teaching points before, during and after reading.
4. **Independent Reading:** Students read on their own or with partners. They select from a wide range of materials provided by the teacher, or self-selected based on interest or peer recommendations.
5. **Shared/Interactive Writing:** Shared writing is students and teacher working together to compose messages and stories; teacher supports process as scribe. Interactive writing, as in shared writing, when the teacher and students compose messages and stories that are written using a "shared pen" technique. The writing is based upon the students' experiences, interests, strengths, and needs.
6. **Modeled Writing:** Teacher models the writing process for the whole class or small group through the use of mini-lessons. The teacher selects writing strategies or skills to be explicitly taught based on students' needs.
7. **Guided Writing:** Students engage in writing a variety of texts. Teacher guides individual students or small groups who have similar needs. Instruction is provided through mini-lessons and conferences.
8. **Independent Writing:** Students produce their own writing including labeling, lists, stories, informational pieces, personal narratives, expositions, essays and poetry.
9. **Vocabulary, Word study and Spelling:** Students engage in active, developmentally appropriate exploration to increase their specific knowledge of words and American-English spelling. The teacher links instruction of phonics, spelling, and vocabulary to classroom materials in use.
10. **Oral Language:** The teacher utilizes and creates opportunities throughout the day for oral language skill development. Students use their listening and speaking vocabularies to participate in oral language activities. Daily listening and speaking opportunities, both formal and informal, should be embedded through out the curriculum.

#### **Collaborative Instructional Model**

In a collaborative instructional model, a resource teacher for the gifted (RTG), a math itinerant resource teacher (MIRT), an instructional technology coordinator (ITC) supports the classroom teacher. Working together, these teachers develop and present appropriately differentiated learning experiences for all levels of students within the regular classroom. The collaborative instructional teacher may conduct short-term extension projects with small groups of students based on student interest, ability, and/or learning profile.

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## Inventory of Instructional Approaches

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### Specific

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**Content-based Spanish Language Instruction (Immersion)** Content-based instruction is a method of teaching of the foreign language that integrates language instruction with instruction in content areas. In addition to direct instruction of Spanish language arts, Spanish is used as the medium for teaching subject content such as mathematics, science or social studies from the regular curriculum. Language is not just the medium for communication but a medium for learning across the curriculum.

#### **Connected Mathematics 6-8**

Connected Mathematics is a complete mathematics curriculum that helps students develop understanding of important concepts, skills, procedures, and ways of thinking and reasoning in number, geometry, measurement, algebra, probability, and statistics. The research-based program is problem-based. Important mathematical concepts are embedded in engaging problems. Students develop understanding and skill as they explore the problems individually, in a group, or with the class. Research results consistently show that CMP students outperform other students on tests of problem-solving ability, conceptual understanding, and proportional reasoning.

#### **Everyday Math (Prek-5)**

Everyday Mathematics is a research-based curriculum developed by the University of Chicago School Mathematics Project. UCSMP was founded in 1983. The goal of this on-going project is to significantly improve the mathematics curriculum and instruction for all school children in the U.S. There are a number of features that distinguish the Everyday Mathematics curriculum. These include: real-life problem solving, balanced instruction, multiple methods for basic skills practice, emphasis on communication, enhanced home/school partnerships, and appropriate use of technology.

#### **Guided Reading**

Guided reading is reading with students. The goal of Guided Reading is to teach students to independently use reading strategies at their instructional level. It is a bridge between shared reading and independent reading. Guided Reading provides opportunities for teachers to work with small groups of children on text that closely matches the children's needs, abilities, and interests. The teacher acts as a facilitator, using prompts and questioning strategies to guide children to comprehension. Using a book introduction, the teacher sets the scene, piques student interest and engages children in discussion. In Guided Reading everything is learned within the context of a book.

The teacher uses this time for ongoing observation and assessment. This assessment is important because Guided Reading is done in flexible groups that reflect changing abilities and needs. The children are grouped and regrouped in a dynamic process.

Purposes:

- Promotes reading strategies
- Increases comprehension
- Encourages independent reading
- Strengthens students' thinking skills
- Allows the teacher to work with individual groups of students on specific reading skills.

**Guided Writing or Writer's Workshop** is *writing by* students. The teacher acts as a facilitator and guides a student or a small group of students through the process. Instruction is provided through mini lessons and conferences.

Purposes:

- Helps the writer develop style and voice
- Provides learning opportunities to become better writers
- Enables students to apply spelling and word analysis skills
- Provides opportunities to use writing for different purposes and across different genres
- Fosters creativity and ability to compose

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## Inventory of Instructional Approaches

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### Specific

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#### High/Scope (PreK-K)

High/Scope is an active learning educational approach. Students have direct, hands-on experience with people, objects, events, and ideas. Children's interests and choices play a major role in the High/Scope curriculum. The space and materials in the classroom are carefully chosen and arranged to promote active learning. Children construct their own knowledge through interactions with the world and the people around them. Children direct a part of the learning process by making choices and following through on their plans and decisions. In this setting the teachers expand children's thinking with diverse materials and meaningful, scaffolded, nurturing interactions.

#### History Alive! (Grades 6-12)

Knowledge, skills, attitudes and values, and civic actions in the social sciences through a variety of approaches including History Alive! (secondary) and Social Studies Alive! (elementary). The pedagogical approaches are designed to make instruction more engaging, relevant, meaningful and memorable for students. The three premises of Social Studies/History Alive are that 1) students have different learning styles (Gardner's Multiple Intelligences theory), 2) cooperative interaction increases learning and improves social skills (Cohen's Heterogeneous Groupwork) and 3) all students can learn (Bruner's Spiral Curriculum). The approach provides a structure and teaching strategies that can be included in lesson design, an organizational structure for students, and methods for establishing a classroom environment that will promote cooperation, tolerance and some risk-taking. (See Discipline-based Historical Literacy). There are nine specific strategies that engage ALL learners in history content and language:

1. Visual Discovery
2. Social Studies Skill Builders
3. Experiential Exercises
4. Problem-Solving Group work
5. Response Groups
6. Writing for Understanding
7. Reading for Understanding
8. Interactive Student Notebook
9. Effective Assessment

#### Independent Reading

Independent Reading is reading by students. It involves children reading on their own or with partners. It is an approach that should be used at every stage of children's reading development. In Independent Reading children assume the responsibility for the learning demonstrated during more supportive components of a Balanced Literacy Program. The teacher becomes an observer, acknowledging and responding to the children's reading. Independent Reading involves more than just reading books, but using all written materials found in the classroom. "Reading the room" becomes a popular activity. When "reading the room," students walk around the room with a pointer, reading everything displayed on the walls or on hanging charts. Pieces composed during interactive and shared writing can be highlighted as well as classroom-produced big books. Reading and rereading familiar text will support young children's need to behave like and enjoy the pleasure of being a reader.

Purposes:

- Provides opportunities to apply reading strategies independently
- Extends experiences with a variety of written texts
- Promotes reading for enjoyment and information
- Develops fluency through rereading
- Fosters self-confidence as students read familiar and new text

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## Inventory of Instructional Approaches

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### Specific

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#### **Inquiry Based Science/learning**

Inquiry in Education is a multifaceted activity that involves making observations; posing questions; examining books and other sources of information to see what is already known; planning investigations; reviewing what is already known in light of experimental evidence; using tools to gather, analyze, and interpret data; proposing answers, exaltations, and prediction; and communicating the results. Inquiry requires identification of assumptions, use of critical and logical thinking and consideration of alternative explanations.

National Science Education Standards

#### **Interactive Notebook**

The interactive notebook began as a strategy in Addison Wesley's program, History Alive! Since then, many teachers and students have expanded and added to the repertoire of ideas and ways to use this strategy. Each student has a spiral notebook that he/she uses for recording information for the class; each pair of pages is designated for different purposes. The right side of the notebook is used to record notes on a mini-lesson, lecture, reading, class discussion, etc. The left side of the notebook is used solely for the purpose of the student's individual interaction with the information on the right page. This interaction is not directed by the teacher in any way other than a list of possible options for the various methods from which a student may want to choose.

#### **Interactive Writing**

Interactive writing is *writing with* students. A teacher-guided group or one-on-one activity designed to teach students about the writing process and about how written language works. Teacher and students interact to compose an accurate text using the *shared pen* technique. Teacher and students share one pen during this process. Students receive explicit instruction and practice specific writing skills.

##### **Purposes:**

- Demonstrates concept of print, early strategies, and how words work
- Provides opportunities to hear sounds in words and connect to letters
- Helps students understand the *building up* and *breaking down* processes in reading and writing

#### **Investigations (K-5)**

Investigations is a research-based math curriculum used in grades K-5. Investigations offers activity-based mathematics that encourage students to think creatively, develop and articulate their own problem-solving strategies, and work cooperatively with their classmates. Many Investigations activities involve engaging games that reinforce students' understanding of important mathematical concepts and skills. Active mathematics teaching requires students to think deeply about the mathematics content and the instructional techniques meet diverse needs and learning styles. Ongoing assessment opportunities in Investigations provide teachers information to make decisions about modifying the curriculum.

**Lucy Calkins' Unit of Study for Primary Writing A Yearlong Curriculum for Grades K-2** is a writing series program comprised of nine books and a CD. It is designed to help primary teachers teach a rigorous yearlong writing curriculum. It is divided into month-long units of study. Each unit is divided into approximately fifteen sessions.

#### **Linking Libraries and Academic Achievement (LLAA)**

The goal of this initiative is to provide guidance to school library media specialists in the development of best practices for teaching and learning. The resource documents identify skills that students need in order to be successful in meeting the Virginia Standards of Learning. It also provides strategies and activities that integrate technology into the curriculum and fosters the development of literacy skills that will enable students to become discriminating and efficient users of information. School librarians design instructional lessons/units using a LLAA template that integrate national information literacy strands, core SOL, technology SOL, and essential questions. Library Services provide the foundation for intellectual life – skill in acquiring information, appreciation of literature, and the resources to gain knowledge.

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### Specific

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#### **Literature Circles**

Literature circles are a way to provide reading instruction and guidance. In Literature Circles students choose their own reading materials. Small temporary groups are formed, based upon book choice. Different groups read different books. Groups meet on a regular, predictable schedule to discuss their reading. Students use written or drawn notes to guide both their reading and discussion. Discussion topics come from the students. Group meetings aim to be open, natural conversations about books, so personal connections, digressions, and open-ended questions are welcome. In newly-forming groups, students may play a rotating assortment of task roles. The teacher serves as a facilitator, not a group member or instructor. Evaluation is by teacher observation and student self-evaluation. When books are finished, readers share with their classmates, and then new groups form around new reading choices.

#### **Multiage Classroom**

A multiage classroom is a mixed-age group of children that stays with the same teacher for several years. This grouping, deliberately made for the benefit of children, not for reasons of economics, curriculum, or convenience, comprises much more than school classmates, evolving instead into a true family of learning. The multiage classroom is not a combination class where a teacher instructs two or three grade levels in their designated curricula. Ages and grades do not divide this community of learners within the classroom. Rather, in the multiage community, every child in the "family" can become a successful learner on his own continuum of growth. The multiage classroom supports this individual growth through a process approach to learning that is child centered rather than curriculum centered. The mixed-age environment requires teachers to facilitate the learning of each child rather than to instruct the class as a whole based on predetermined grade-level skills and content. As a result, the multiage classroom can turn the process of education into a wonderful and successful adventure in learning for both teacher and children.

#### **Montessori (PK-5)**

Montessori education is a multi multi-age, child-directed model of education based on the work of Maria Montessori. This model is based on the philosophy that a child's innate desire and ability to learn should be nurtured through interaction with a prepared environment, purposeful activities, and the guidance of trained adult. Children develop concentration, self-discipline, and respect for themselves and others in a Montessori community. As children progress through curricular materials, which are self-correcting, they work from the concrete to the abstract at their own pace. Montessori preschool curriculum is divided into five curricular areas, which include: Practical Life, Sensorial, Math, Language, and Cultural Subjects; while, elementary classrooms offer Arithmetic, Language, Geometry, History/Geography, and Biology.

#### **Orf Schulwerk *Elementary General Music***

Based on the ideas of German composer Carl Orff and his colleague, Gunild Keetman, the Orff Schulwerk approach uses speech, movement, singing, and playing specially designed pitched percussion instruments to give students the tools and skills they need to create their own music. Improvisation permeates the teaching and learning process. The teaching sequence is imitation-Exploration-Creation. Musical instruments come from children's folklore, folk songs, poetry, folktales, and children's picture books. Tonal material progresses from pentatonic and modal scales, accompanied by pedal tones and open 5ths, to diatonic scales with functional harmony. Layered ostinato patterns, both rhythmic and melodic, are featured.

#### **Problem-based Learning**

Problem-based learning allows students to acquire significant science content knowledge in the course of solving an interdisciplinary, 'real-world' problem. These problems are used to engage students' curiosity and initiate learning the subject matter. PBL prepares students to think critically and analytically, and to find and use appropriate learning resources. This format requires students to analyze the problem situation, to determine what information they need in order to come up with solutions, and then to find that information in a variety of ways. The problem-based method also allows students to model the scientific process, from the

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## Inventory of Instructional Approaches

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### Specific

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problem-finding and information-gathering steps to the evaluation of experimental data and the recasting or solution of the problem.

(Adapted from William and Mary Gifted Education Web Site)

#### **Proficiency-Oriented Foreign Language Instruction**

Proficiency-oriented language instruction is an approach that permits language learners to focus on developing language skills in listening, speaking, reading, and writing in order to communicate meaningfully, effectively and creatively in the target language for real life purposes. A proficiency orientation promotes intercultural communication by exploring the mosaic of language and culture so that students can communicate appropriately in authentic contexts.

#### **Question Answer Relationship (QAR)**

Provides students with a strategy to analyze the questions they are asked in regard to a reading selection. The purpose is to “demystify the questioning process, providing teachers and students with common vocabulary to discuss different types of questions and sources of information for answer these questions” (Taffy Raphael). There are four types of questions: Right There, Think & Search, Author & Me, and On My Own.

#### **Shared Reading**

Shared Reading is reading to and reading by students. It is an interactive reading experience. Children join in the reading of a big book or other enlarged text as guided by a teacher or other experienced reader. Shared Reading is generally accomplished using an enlarged text that all children can see. The teacher carefully selects the text with an instructional focus in mind. The entire text is read out loud to students. Student interactivity is the distinguishing feature of Shared Reading versus Reading Aloud. Selected books must be suitable for students to join in the experience. During repeated readings the teacher involves the children in reading together by pointing to or sliding below each word in the text. This provides children the opportunity to participate and behave like a reader. Shared reading models the reading process and strategies used by readers. The teacher deliberately draws attention to the print and models early reading behaviors such as moving from left to right and word-by-word matching.

Purposes:

- Creates a risk-free environment
- Allows children to focus on the enjoyment of the story
- Develops a sense of story or content
- Promotes reading strategies
- Increases comprehension
- Develops fluency
- Expands students' vocabulary

**Shared Writing** is *writing with* students. The teacher and students work together to compose messages and stories. The teacher supports the process by acting as a scribe.

**Purposes:**

- Demonstrates how writing works
- Provides opportunities to draw attention to letters, words, and sounds
- Enables students' ideas to be recorded
- Creates written language resource for the classroom

#### **SIOP – Sheltered Instruction Observation Protocol**

The SIOP is a research-based model of sheltered instruction that incorporates best practices for teaching academic English and provides a coherent approach for improving achievement. The SIOP consists of 30 features of effective instruction organized under eight components: Lesson Preparation that includes both language and content objectives, Building Background, Comprehensible Input, Strategies, Interaction,

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### Specific

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Practice/Application, Lesson Delivery, Review/Assessment. During SIOP training, teachers focus on each component, work with a partner to observe and analyze each other's lessons using the SIOP rubric, and reflect on student outcomes.

#### Strategies That Work

Seven comprehension strategies from the work of Harvey and Goudvis, 2000. Readers need to understand that reading is *an interactive process that involves both decoding words and constructing meaning*. Students need to become *active, strategic readers as well as proficient decoders*. It is important the readers know when, how and why to use a particular strategy.

##### Seven Comprehension Strategies:

- Making Connections (text to self; text to text; text to world)
- Questioning (monitoring comprehension – knowing when you do and when you don't understand)
- Visualizing (creating mental images)
- Inferring (recognizing plot and themes)
- Determining Importance (sifting and sorting information)
- Synthesizing (getting the gist)

#### Social Studies Alive! (K-5)

Knowledge, skills, attitudes and values, and civic actions in the social sciences through a variety of approaches including History Alive! (secondary) and Social Studies Alive! (elementary). The pedagogical approaches are designed to make instruction more engaging, relevant, meaningful and memorable for students. It is based upon the work of Howard Gardner's Multiple Intelligences, Elizabeth Cohen's Cooperative Interaction, and Jerome Bruner's Spiral Curriculum Model. The approach provides a structure and teaching strategies that can be included in lesson design, an organizational structure for students, and methods for establishing a classroom environment that will promote cooperation, tolerance and some risk-taking. Specific strategies include:

- Visual Discovery
- Social Studies Skill Builders
- Experiential Exercises
- Problem-Solving Group work
- Response Groups
- Writing for Understanding
- Reading for Understanding
- Interactive Student Notebook
- Effective Assessment

#### Text Talk

Text Talk is a vocabulary program for grades K-3 that was developed by leading vocabulary researchers and has been proven effective in scientific research. It engages teachers and students in robust vocabulary instruction tied closely to comprehension. *Text Talk* instruction focuses on robust words. Each word was chosen because it:

- Represents a familiar concept. For example, while students may not know "bicker," they already know "fight."
- Will appear later in text or standardized tests. Students are likely to encounter words like "forlorn" and "misconception" in chapter books and on standardized tests starting in 3rd and 4th grades.

*Text Talk* words help teachers make the most of limited instructional time by focusing on useful words that give children a healthy vocabulary in the early grades.

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## Inventory of Instructional Approaches

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### Specific

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#### **Word Study**

A learner-centered conceptual approach to instruction in phonics, spelling, word recognition, and vocabulary. Instruction is based on student assessment.

#### **Purposes:**

- Develops phonology, orthography (pattern), and morphology
- Develops word analysis skills for spelling and word recognition
- Develops vocabulary

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## Inventory of Instructional Approaches

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### Embedded

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This section identifies and defines the **strategies embedded within instructional approaches** alphabetically. Various strategies are part of one or several General Instructional Approaches or Specific Instructional Approaches.

#### Adjusting Questions

During large group discussion activities, all students are asked important questions that require them to think; however, the questions are targeted toward a student's readiness level. One questioning model is based on Bloom's taxonomy – questions focused on Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation.

##### Questioning Tools (A sampling of)

There are a number of programs and strategies that can be used in the classroom. Information on all of these is readily available.

- *Bloom's Taxonomy of Thinking* - a classification of thinking organized by level of complexity. It gives teachers and students an opportunity to learn and practice a range of thinking and provides a simple structure for many different kinds of questions and thinking. Study of the examples below shows that the taxonomy involves all categories of questions.
- *Thinkers Keys* - a strategy used to develop creative and critical thinking designed by Tony Ryan, a consultant for Gifted and Talented Programs in Queensland. Each of the twenty keys is a different question which challenges the reader to compose his or her own questions and come up with responses.
- *Question Matrix* - designed by Chuck Weiderhold in 1991. It contains 36 question starters asking what, where, when, which, who, why and how. These questions are asked in present, past and future tenses ranging from simple recall through to predictions and imagination. Proceeding through the matrix, the questions become more complex and open-ended. The questions range from mere use of memory to creative and critical questioning. The Question Matrix may be made into cubes, cards, spinners or divided into strips or single questions depending on the task. The Question Matrix is a visual tool to assist students to create their own questions about topics to encourage in-depth thinking. Students can become more independent at designing their own learning tasks. The opportunity for greater choice and flexibility and to follow up individual interests is facilitated. The levels of Bloom's Taxonomy of Thinking can be linked to the Question Matrix. Questions along the top of the grid are knowledge questions. Questions along the bottom of the grid require analysis, synthesis and evaluation.
- *Divergent Thinking Model* - Good thinkers and problem solvers have devised questions they ask themselves during the teaching/learning process. Metacognition involves the recognition of specific strategies such as self-talk and self-questioning used to connect thinking, plan processes and reflect on outcomes. Self-questioning models and techniques promote complex thinking and direct students to reflect on and assess their questions, responses and actions and identify areas for further investigation. Wilson and Wing Jan (1993), give examples of the types of questions that promote divergent thinking
- *Six Thinking Hats* - Edward De Bono devised the Six Thinking Hats as a strategy to encourage students to look at a topic or problem or idea from more than one perspective. Each hat represents a different kind of thinking and therefore different kinds of questions. This process is clearly explained in his books and other readily available commercial material.

#### Anchoring Activities

Anchoring activities are a variety of activities that a student can do to at any time when they have completed present assignments. The activities may relate to specific instructional needs or enrichment opportunities. Anchoring Activities can be part of a long-term independent study or they may be short-term enrichment activities related to the essential concepts being instructed.

#### Brainstorming

Brainstorming is a technique for generating new, useful ideas, and promoting creative thinking. It can be a very useful technique to help generate ideas for projects, encourage shy or reluctant participants or solve problems.\*

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## Inventory of Instructional Approaches

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### Embedded

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#### Centers

Learning centers have been used by teachers for a long time and may contain both required academic tasks and differentiated activities. A learning center is necessarily differentiated when the activities are varied by complexity to accommodate various student readiness levels. Teachers structure the centers so that children understand the expectations of the tasks and can engage in the development of independent work habits.

#### Compacting Curriculum

Curriculum is compacted for students who have demonstrated mastery of knowledge and skills through pre-testing or performance assessment methods. The student has demonstrated mastery of the content and is provided an opportunity to move to accelerated materials or tiered problem-solving activities.

#### Demonstrations/Modeling

Demonstrations provide a rich opportunity to explore and view new learning tasks from a different perspective. Asking a community member to demonstrate her or his craft may stimulate a student to pursue this as a hobby or a profession. Watching a teacher demonstrate a new skill can spur a student to work more independently. \*

#### Dialog Journals

Dialog journals and other forms of journal writing are used in many kinds of classrooms. Many teachers have found journals to be an effective method of communicating with their students, whether by keeping a dialogue journal with a continuous written conversation, or by asking the students to keep journals related to their learning in a particular subject. In dialog journals, students can write about topics that are important to them. They can tell stories, ask questions, or just converse with the teacher or writing partner. Other forms of journal writing include literary journals and subject journals.\*

#### Discovery Learning

Discovery learning provides students with opportunities to develop hypotheses to answer questions and can contribute to the development of a lifelong love of learning. Students propose issues or problems, gather data and observations to develop hypotheses, confirm or refine their hypotheses, and explain or prove their problems.\*

#### Discussions

Classroom discussion can be a very powerful tool for student and teacher learning. Teachers plan discussions carefully to be sure that goals are met and students interact effectively.

Good discussions start with advance planning. Students know the ground rules for participation and respect each other's contributions. Teachers guide students from comprehension and review questions to complex and critical thinking. They keep records of the discussion so that all participants can return to the topics. And, successful teachers allow for "wait time" so that students have time to formulate their answers.\* (*See also Socratic Seminar*)

#### Flexible Groupings

Flexible grouping allows students to be appropriately challenged and maintains that a student's readiness is dynamic – always changing. The teacher can move a student from one grouping for one subject to another grouping for a different subject dependent on a student's readiness level, interest, or learning style. Flexible grouping allows students to work in differently mixed groups depending on the goal of the learning task at hand, then to break apart once the task is completed. Most often, ability groups reflect children's overall reading achievement. In contrast, flexible grouping fulfills a variety of purposes, from enabling students to use their strongest modalities and promoting group interaction to the teaching of specific skills with respect to intellectual, social, and emotional development. After lessons are learned, the group dissolves.

- *Random*: This is creating groups arbitrarily, which you can do in a variety of ways, such as picking names from a hat. Random grouping is good when forming groups of equal size or when you'd like students to get to know one another.
- *Social, or cooperative*: Consider grouping students according to specific social skills when they need to function in different roles, such as leaders and followers. Students can learn different roles from one another and work together to complete a group task.
- *Interest*: Assign students to a group or have them assign themselves to a group based on interest in a topic,

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## Inventory of Instructional Approaches

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- such as a favorite animal. Use this when student interest is the main motivation for learning about a topic.
- *Task*: Group together those children who are successful at completing certain types of activities when you want students to use their strongest modality to show understanding. For example, when having students dramatize a story, ask those who are artistic to paint a theatrical backdrop and those with musical talent to play an instrument.
- *Knowledge of subject*: Group together students with knowledge of a certain subject or hobby when you want them to recognize similarities among one another and to share information.
- *Skill/strategy*: Group together students who need help with a particular skill or strategy, such as using context clues.
- *Student choice*: Students can group themselves according to a category, such as author or genre. For instance, if your class is studying Beverly Cleary, you can have students list their favorite books by Cleary on an index card and then group by choice. Use this approach when you want to create literature-response groups in which students take the lead.

### Graphic Organizers

Graphic organizers can assist students to transfer or apply what they know to what they are learning. They can be powerful tools to help teachers plan with the end in mind. Graphic organizers help teachers to clarify the “big ideas the students will be exploring, identify what students already know, and develop links between the two.” In order to teach effectively, teachers must know what students already know about the subject being taught. Some examples of graphic organizers include:

- KWL (Know, Want to Know, Learn) charts
- Four quadrants
- Sort and predict
- Venn diagrams
- Brainstorm and categorize
- Going for the big ideas
- Concept mapping

### Manipulatives

Manipulatives are physical materials or tools that model concepts. They are important tools for helping children learn. Meaning is not inherent in the tool; students construct meaning from the tool or manipulative. When students are using manipulatives they are working on two fronts simultaneously: what the tool means and how it can be used effectively to understand something else.

### Modeled Reading/Reading Aloud

Modeled Reading/Reading Aloud is reading to students. The teacher reads aloud selections to students. A carefully selected text is used as well as a variety of genre.

Purposes:

- Provides an adult model of fluent reading
- Provides exposure to a variety of genre
- Expands access to text beyond students’ abilities
- Enriches concept and vocabulary development
- Encourages prediction
- Fosters a love and enthusiasm for reading

### Modeled Writing

Modeled Writing is writing to students. It is writing that the teacher does in front of the class.

While writing, the teacher talks about the writing and discusses the process. The teacher also shares decisions that a writer makes. It is a think aloud while writing.

Purposes:

- Provides opportunities for students to observe the writing process, writing skills and strategies
- Provides opportunities to discuss observations

### Multimedia Instruction

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Multimedia Instruction is the use of a computer to present and combine text, graphics, audio and video, with links and tools that let the user navigate, interact, create and communicate. This definition contains four components essential to Multimedia Instruction. First, there must be a computer to coordinate what you see and hear and to interact with. Second, there must be links that connect the information. Third, there must be navigational tools. There must be ways for you to gather, process and communicate your own information and ideas. Instruction should incorporate multimedia into student learning so that all students are actively involved. Multimedia assists in incorporating different learning styles, and uses multiple paths to learning.

### Peer Tutoring

Peer tutoring is the process by which a pupil, with guidance from a teacher, helps one or more students at the same grade level learn a skill or concept. Many benefits for both partners have been shown in peer tutoring programs: learning of academic skills, development of appropriate social skills, and enhancement of peer relations. Peer tutoring programs can help students who have equal but different expertise or students who have more skills or ability and who teach others who are less skilled. Peer tutoring includes having clear expectations of students, both the tutors and the recipients of the tutoring. The students work together to achieve common goals and work to achieve mastery of the information they will be sharing.\* (See Can Do)

### Primary Source Document Analysis

Analyzing primary sources is a means for teaching students how to confront a historical document, the questions to ask of it, and how to critically examine information they receive. Students learn to determine the context and purpose for the source as well as evaluate and interpret the source, including its authenticity/reliability and consequences/outcomes.

### Project-Based Learning

Experiential education is the process of actively engaging students in an authentic experience that will have benefits and consequences. Students make discoveries and experiment with knowledge themselves instead of hearing or reading about the experiences of others. Students also reflect on their experiences, thus developing new skills, new attitudes, and new theories or ways of thinking.

### Reading Comprehension Instruction

Comprehension is the ability to understand what is being read. If readers can read the words but do not understand what they are reading, they are not really reading. Good readers also have a purpose for reading. Reading instructional strategies include, but are not limited to, helping students build background knowledge, connecting text to students' lives; setting a purpose for reading; checking for understanding while reading; teaching inference and critical reading; and reflection. Reading comprehension instruction becomes more intense in Grade three and above.

### Reader's Theatre

A performance of literature, as a story, play, etc., read aloud expressively by one or more persons, rather than acted.

### Research

Instructional practice requires strategies to teach students how to access, use, synthesize, and evaluate information. Given a topic, students learn to explore, organize, and perform research to gain knowledge. Research models, built on learning theory, include Bloom's Taxonomy, metacognitive scaffolding, problem solving strategies, and are often called information literacy skills. In a school setting, teachers and librarians use a number of instructional strategies, such as Jamie McKenzie's Research Cycle (<http://www.fno.org/oct97/researchcycle.html>), the Big6 (<http://big6.com>), InfoZone (<http://www.pembinatrails.ca/infozone>), Pathways to Knowledge (<http://www.sparkfactor.com/clients/follett/overview.html>), and others, to teach these problem solving skills. Most of these research strategies follow a progression, from identifying a task to questioning, to locating and using information, and ending in the synthesis and evaluation of information. The above web sites give full overviews of research strategies.

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## Inventory of Instructional Approaches

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#### Running Records

The running record allows the teacher to record a child's reading behavior as she or he reads from a selected text. Running records can be taken on any book that has never been seen by the reader or one that has been read once or twice. While the student is reading, the teacher makes notes on a running record form on how the student reads the text. Running records give a measure of a child's ability to handle text at the assessed level.

#### Simulations and Games

A classroom should be a place of fun as well as instruction. Student motivation can increase with the use of games to reinforce skills and concepts learned. Accomplished teachers use games to reinforce skills taught to a large group. They also use carefully chosen games to assess mastery of skills or content. Games also have value for teaching and reinforcing social skills, and for deepening discourse about topics. \*

#### Tableau

An instructional strategy in which a still picture representing concretized thought is physically created by the participants in a dance or a dramatic work. A tableau can be performed in conjunction with a freeze activity, or it may be planned and rehearsed for a given purpose.

<http://www.bced.gov.bc.ca/irp/fak7/apf3.htm>

#### Team Teaching

An instructional approach in which two or more instructors are jointly responsible for course content, presentations, and grading; they may interact in front of the class, discussing specific topics from divergent perspectives, and take turns presenting material appropriate to their individual areas of specialization.

Or

An instructional approach where a group of teachers and students at a particular grade level are grouped, such that one teacher teaches specific subjects and the student rotate between a set group of team teachers. The team of teachers work together to provide a consistent and effective educational program for a smaller subset of a grade level.

#### Technology

Technology used in instruction include the following:

- Instructional software programs and subscriptions to include:
  - United streaming- web based streaming video service
  - Online Encyclopedia databases
  - Inspiration
- Instructional approaches or programs include
  - Levels of Technology Integration (LOTI)
  - Higher Order Thinking Skills (HOTS)

#### Tiered Assignments/Activities

Tiered assignments/activities are a series of related tasks of varying complexity based on the same essential understanding and key skills that students are required to master. Teachers develop and assign the activities on the basis of individual student needs so that students have alternate methods of achieving the same goals.

#### Thematic Approach

The use of a thematic approach organizes subject matter around a unifying theme. In most accomplished teachers' classrooms, instruction is integrated around a theme, building science, language arts, social studies, and mathematics into a whole. Students are then able to make important connections in their learning and understand more of the "essential questions." Accomplished teachers use multiple paths to learning, integrating subject matter across the curriculum and disciplines to ensure that students understand the whole picture.\*

# Arlington Public Schools Department of Instruction Best Instructional Practices

## PLANNING

**The teacher demonstrates knowledge and use of APS curriculum.**

- Designs lessons that address the long- and short-range goals and objectives of the curriculum
- Prepares lessons that adhere to best practices for delivery of instruction that is relevant, engaging, and challenging
- Designs lessons that incorporate processes that lead to student learning:
- Motivation of new content by activating prior knowledge and/or providing background experiences
- Presentation of content
- Practice of associated skills and processes
- Application of skills and processes to real world situations

**The teacher demonstrates knowledge of student intellectual, social, and emotional development.**

- Creates, selects, and adapts instructional plans and materials to accommodate learner differences that include age groups, learning styles and achievement levels, interests, and cultural background

**The teacher demonstrates knowledge of resources.**

- Selects instructional materials that are relevant to the instructional content being taught
- Utilizes appropriate staff resources such as reading specialists, library media specialists, counselors, ESOL/HILT teachers, special education teachers, paraprofessionals, Title I teachers, and resource teachers for the gifted.
- Makes use of community resources such as public library, museums, community and volunteer organizations
- Promotes, uses, and incorporates diversity in program development and selection of materials

## INSTRUCTION

**The teacher delivers instruction that is relevant.**

- Connects learning to students present lives
- Guides students in connecting learning to the world beyond school
- Incorporates opportunities for the application of new learning

**The teacher delivers instruction that is engaging.**

- Creates an interactive learning environment that emphasizes inquiry, discovery, and problem-solving
- Develops lessons/tasks that address the range of student readiness levels, learning styles, and multiple intelligence
- Uses a multisensory approach for delivery of instruction (e.g. use of manipulative, visuals, and concrete materials)
- Uses technology to facilitate teaching and learning
- Groups and regroup students in a variety of learning situations
- Incorporates a student-centered project approach and provides ample opportunities for the practice of skills and processes
- Uses teaching strategies which emphasize student questioning, justifying, writing, modeling, and observing

## **INSTRUCTION (cont.)**

### **The teacher delivers instruction that is challenging.**

- Connects new learning to what students already know
- Ensures that all students have access to the full range of the curriculum regardless of past achievement or any other factor
- Makes multidisciplinary connections
- Acts as a guide and facilitator to student learning and promotes a student-centered classroom

### **The teacher assesses student learning.**

- Includes assessment as a regular part of classroom instruction
- Designs assessment that is congruent with instructional goals both in content and in process
- Establishes assessment criteria and communicates those criteria clearly to students
- Establishes with students meaningful criteria and choices for demonstrating their learning
- Promotes student self assessment and peer assessment
- Uses assessment results to inform instruction
- Uses a wide range of assessment tools
- Monitors students learning, both formally and informally
- Observes students in a variety of settings and uses student work samples to monitor and document student progress
- Communicates assessment processes and results to students and to parents and staff as appropriate

## **CLASSROOM ENVIRONMENT**

### **The teacher creates a safe, supportive, learning environment.**

- Promotes positive relationships among students that encourage mutual respect, initiative, positive view of learning, independence, and self confidence
- Demonstrates respect for and sensitivity to the diversity among students and staff

### **The teacher establishes high expectations.**

- Communicates high expectations for all learners regardless of race, gender, ethnicity, language background, or disabilities
- Provides opportunities for students to work in their areas of strength and receive recognition

### **The teacher effectively manages the classroom.**

- Establishes classroom routines (so that time may be used efficiently) to assure optimal student learning
- Establishes and administers a consistent and fair set of conduct standards and expectations
- Elicits students input in the development of conduct standards and consequences
- Assures that all resource staff and volunteers are effectively used to enhance student learning

### **The teacher maintains a physical environment conducive to learning.**

- Uses a variety of physical resources such as print and non-print materials, audiovisual equipment, computer technology, and classroom libraries
- Encourages and cultivates student participation in establishing an effective classroom environment
- Creates a physical environment that stimulates and increases students involvement in the instructional program (i.e. a display of student work)
- Adapts space for different instructional purposes at different times, matched to curricular goals as well as student needs

## **PROFESSIONAL RESPONSIBILITIES**

### **The teacher grows and develops professionally.**

- Participates in professional development activities (i.e. professional organizations, staff development, curriculum projects)
- Keeps current in the field and applies knowledge to instruction

### **The teacher reflects on teaching.**

- Uses goal setting as a means of continuous growth
- Assumes responsibility for student outcomes
- Participates in self-assessment activities
- Monitors own beliefs and behaviors to assure that high expectations are communicated

### **The teacher communicates with others about the instructional program.**

- Communicates with students, maintaining student records, and keeping students apprised of their progress
- Communicates with families and engages families in the instructional program
- Communicates with peers through activities such as Teachers as Readers, Teachers as Researchers, collaborative inquiry, peer coaching, and study teams

### **The teacher demonstrates professional behavior.**

- Serves as appropriate role model to students and peers
- Demonstrates ethical behavior
- Practices a strong work ethic
- Collaborates with colleagues

## **Sources**

### **Guidelines for Student Assessment**

Arlington Public Schools, October 1996

### **Best Practices Document**

Curriculum Supervisors, August 1997

### **Core Curriculum Characteristics in Common for Teacher Observations**

Arlington Public Schools

### **Curriculum Framework: Social Studies Best Practices**

Arlington Public Schools

### **Enhancing Professional Practice: A Framework for Teaching**

Charlotte Danielson

ASCD, Alexandria, Virginia, 1996

### **Onward to Excellence Effective Schooling Practices: A Research Synthesis**

Kathleen Cotton

Northwest Regional Educational Laboratory, Portland, Oregon, 1995

### **Teacher Performance Evaluation Handbook**

Fairfax County Public Schools, 1994

## **SAMPLES OF EVIDENCE OF BEST INSTRUCTIONAL PRACTICES**

### **PLANNING**

#### Evidence

- Description of what is seen
- A written lesson plan
- States goal
- Visuals, materials, etc. graphics
- Students know procedures
- Students on task
- Learning centers
- Transitions through multiple activities
- Questioning strategies
- Group work planned
- Organizing physical space

### **INSTRUCTION**

#### Evidence

- Use of manipulative, visuals, concrete materials
- Students working on related computer software
- Dialogue
- Journal writing, portfolios, checklists, anecdotes, weekly report to parents.

### **CLASSROOM, ENVIRONMENT**

#### Evidence

- Display of student work
- Materials relevant to curriculum
- Organizational tools
- Grouping and regrouping
- Varied use of physical space

### **PROFESSIONAL RESPONSIBILITIES**

#### Evidence

- Strategies observed
- Interactions with others
- Home – School communication
- Data collection
- Ongoing accommodations