



Active Learning Space

Dr. Lilli Nielsen's techniques that emphasize simple ways to change the environment so that a child becomes an "active learner".

Can an Active Learning Approach Be Used in General Education Instruction?

State and federal laws insure that all children have access to the General Education Curriculum. IEPs should reflect alignment to the same content that their grade level peers are accessing. This means they should have the same opportunity to study areas of science, social studies, reading, math, and so forth.

Active Learning is an instructional approach for individuals of all ages who are still developmentally in the sensorimotor and early pre-operational stages of learning. It can be used to teach most any content at a developmentally appropriate level for these learners.

The Functional Scheme assessment will help you to identify skills in various domains. It is **imperative** that you know what skills are the focus of any of your activities. Since many of these skills focus on the activity of the child (listening, vocalizing, reaching, exploring, manipulating objects, etc.) these skills are behaviors you hope to see to indicate that the child is making progress toward a specific goal.

To align to goals found in the General Curriculum you can use a variety of tools such as Texas Early Learning Pathways, Dynamic Learning Maps, or the Common Core State Standards. To learn more about these tools and more go to [Resources for Aligning to the Standard Curriculum](#).

In the pages that follow, we show a number of examples of how to aligned to general or standard curriculum and then suggest some specific activities using various pieces of Active Learning Equipment to work on goals that contain infused skills from the Functional Scheme. We also include several examples of a Lesson Plan.

Fine Arts Goal

§117.114. Art Grade 4 Texas Essential Knowledge and Skills (TEKS)

(2) Creative expression. The student communicates ideas through original artworks using a variety of media with appropriate skills. The student expresses thoughts and ideas creatively while challenging the imagination, fostering reflective thinking, and developing disciplined effort and progressive problem-solving skills. The student is expected to:

(C) produce drawings; paintings; prints; sculpture, including modeled forms; and other art forms such as ceramics, fiber art, constructions, mixed media, installation art, digital art and media, and photographic imagery using a variety of art media and materials.

<u>Functional Scheme Assessment</u>	<u>Little Texans, Big Futures</u>	<u>Texas Early Learning Pathways (Texas Rising Star)</u>	<u>Fine Arts TEKS: Elementary</u>	Finished Goal
<p>Perception Through Play and Activity (3-6 months)</p> <p>Pushes objects placed within his reach. (yes)</p> <p>Reaches for objects. (yes)</p> <p>Grasps and releases for a variety of objects hanging over her head and hands. (no)</p>	<p>Page 27 - Fine Motor Skills (0-8 months)</p> <p>Begin to grab at things with a purpose but may not hold things well yet (no)</p>	<p>Page 21 - Fine Arts Art and Fine Motor (0-8 months)</p> <p>Explores materials with hands. (beginning)</p> <p>(48-60 months, PK)</p> <p>Uses art materials and expresses self through art. (no)</p>	<p>Kinder</p> <p>2(C) use a variety of materials to develop manipulative skills while engaging in opportunities for exploration through drawing, painting, printmaking, constructing artworks, and sculpting, including modeled forms. (no)</p> <p>4th Grade</p> <p>2(C) produce drawings; paintings; prints; sculpture, including modeled forms; and other art forms such as ceramics, fiber art, constructions, mixed media, installation art, digital art and media, and photographic imagery using a variety of art media and materials. (page 19)</p>	<p>In order to develop manipulative skills needed to engage in opportunities for exploration in art activities, the student will intentionally reach for, grasp, push, and release a variety of objects and materials with the hands in various Active Learning environments and activities. To be measured as 80 percent engagement during a 20-minute period.</p> <p>Fine Arts TEKS 2(c)</p> <p>Expanded Core Curriculum: Recreation and Leisure, Self-determination, Sensory Efficiency</p>

Writing an Active Learning Goal that Aligns with the Fine Arts TEKS

Introduction

1. Art is a required class for all elementary students.
2. Art teachers and teaching assistants are often at a loss for how to integrate sensorimotor learners into their classes. The response is often an attempt to passively engage the student in the classroom assignments through hand over hand or simply doing it for the child.
3. This is unfortunate because the materials and the goals of art instruction mesh beautifully with Active Learning!
 - a) Materials and activities are all hands-on. A great variety of materials, objects and textures are employed.
 - b) Goals of art instructions are for students to develop skills in personal exploration and expression. Outcomes are highly individualized.
4. Functions identified in the Functional Scheme are fairly easy to align with fine arts skills. While just about any function can be used for writing a fine arts goal, the following are particularly relevant:
 - a) Fine motor
 - b) Object perception
 - c) Perception through play
 - d) Visual perception

Procedure

1. Complete the Functional Scheme Assessment and identify a skill you would like to address and identify the developmental level.
2. Link the function in the Functional Scheme with one or more of the Early Childhood skills checklists:
 - a) Little Texans, Big Futures - Infant, Toddler, Three-Year-Old Guidelines. Texas Early Learning Council
 - Find skill area and developmental level identified in the Functional Scheme Assessment
 - b) Texas Early Learning Pathways - Infant, Toddler, Three-Year-Old AND PreK guidelines.
 - Find subject area and developmental level identified in the Functional Scheme Assessment.
3. Fine Arts TEKS: Elementary
 - a) In the Kinder level, locate a skill that corresponds to the skill you would like to address. Note the Strand and Skill (Number and Letter).
 - b) Find and note the corresponding Strand and Skill at the student's current grade level.
 - c) You could also use the "TEKS Vertical Alignment" documents but these only go to 2nd Grade.
4. Write the goal combining language from each column.
 - a) May be helpful to look at FIELA Curriculum for ideas.
 - b) Cite the TEKS Strand and Skill
 - c) Cite the areas of the ECC that are addressed

Resources

- Functional Scheme Assessment
- FIELA Curriculum
- [Little Texans, Big Futures](#)
- [Texas Early Learning Pathways \(Texas Rising Star\)](#)
- [TEKS: Fine Arts - Elementary](#)
- [TEKS: All Subjects](#)
- [TEKS Vertical Alignments](#)
- [TEKS Vertical Alignments: Language and Literacy](#)

Fine Arts Lesson Plan

The co-creation of a Position Board or Mobile is a nice art activity to share with a student. The position board becomes a piece of art that reflects the student's preferences and interests. Below is an example of a lesson plan for this activity.

Goal and Areas of Study

Goal: In order to develop manipulative skills needed to engage in opportunities for exploration in art activities, the student will intentionally reach for, grasp and release a variety of objects and materials to create a variety of art forms. Measured as reaching for, grasping and manipulating at least 10 objects and/or materials in a 20-minute class.

- TEKS: Fine Arts 2(c)
- Expanded Core Curriculum: Recreation and Leisure, Self-determination, Sensory Efficiency
- General Education Lesson: Students will create a self-portrait through the media of collage.

Active Learning Objective

Working collaboratively with a partner (adult and/or peer), the student will create a tactile composition that reflects her interests.

Materials

Plastic tub, resonance board, variety of objects of varying shapes, sizes and materials. Optimally, there should be two of each object. Pegboard.

Process

1. The student lies or sits on the resonance board. Partner also sits on the resonance board. Working slowly, at the student's pace, the partner offers objects to the student by placing them within reach.
2. When the student demonstrates interest in an object, the partner should imitate the student's actions using a duplicate of the object. Alternatively, the partner can demonstrate shared attention by engaging mutual tactile exploration of the object.
3. Documentation: The partner should make note of the following information:
4. The objects in which the student showed interest.
5. The manipulative and exploratory techniques the student used with the object.
6. The amount of time the student interacted with the object.
7. The student responds to the partner's imitation or mutual exploration.

Display of the Completed Piece

- Partner arranges a number of the student's preferred objects on the pegboard to create a position board. The student should be allowed to further explore the position board at other times.
- A narrative compiled from the partner's documentation could be presented with the position board to further explain the process that went into its creation and provide some insight into the motivation of the artist.
- If possible, further information could be provided through short video clips and/or photos taken at various stages of the creative process.

Notes

- This process should take place on a regular basis, over a period of time, rather than in a single session. In fact, the finished piece may be modified and adapted in an ongoing manner as the student demonstrates different interested and emerging skills.

Language Arts Goal (Writing)

<u>Functional Scheme Assessment</u>	<u>Little Texans, Big Futures</u>	<u>Texas Early Learning Pathways (Texas Rising Star)</u>	<u>Language Arts TEKS: Elementary</u>	<u>Finished Goal</u>
Fine Movement (0-3) Pushes objects within reach (yes) Grasps reflexively (yes) Closes hand around hair, corner of clothes, bedclothes, passive thumb (no)	Page 49 - Language and Communication Development - Page 56 - Emergent Literacy (0-8 months) Look at others writing or drawing on paper (no)	Page 7 - Language and Communication Page 13 - Emergent Literacy (Writing) (0-8 months) Reaches for, holds, rakes items with whole hand; uses both hands together (no) (48-60 months, PK) Writes some alphabet letters; writes his or her name (no)	Kinder 2(E) develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality. 4th Grade 2(E) write legibly in cursive to complete assignments. (no)	As a precursor to the development of handwriting skills, the student will employ both hands to independently reach for and grasp objects with either hand. Measured as reaching out and grasping at least five objects within a 20-minute period. Language Arts TEKS 2(E) Expanded Core Curriculum: <ul style="list-style-type: none"> • Assistive Technology • Compensatory Skills • Sensory Efficiency

Writing an Active Learning Goal that Aligns with Language Arts TEKS

All Special Education students are required to have an IEP goal that addresses Language Arts.

Teachers often have difficulty understanding how to integrate a child who is at a sensorimotor stage of development as the child's needs are at such variance with the rest of the class. Attempts to engage the child in the typical language arts curriculum frequently results in a great deal of hand-over-hand and other passive forms of instruction. Information provided may not be accessible or meaningful for the child.

If one expands the concept of "language arts" to encompass all modes and levels of communication, the task of alignment becomes less difficult. Think about how you might conceive of the sensorimotor expression of the skills statements:

- I want the child to learn to read.
- I want the child to learn to write.

Some areas in the Functional Scheme that align with these statements include the following. In truth, just about any function can be used for writing a language arts goal but these functions can be more easily seen to align:

- Fine Movement - writing (manipulating objects)
- Object Perception - reading (understanding symbols)
- Language: Non Verbal, Verbal and Comprehension

Procedure

1. Complete the Functional Scheme Assessment
 - Identify a skill you would like to address and identify the developmental level.
2. Link the function in the Functional Scheme with one or more of the Early Childhood skills checklists:
 - a) Little Texans, Big Futures - Infant, Toddler, Three-Year-Old Guidelines.
 - Find skill area and developmental level identified in the Functional Scheme Assessment
 - b) Texas Early Learning Pathways - Infant, Toddler, Three-Year-Old AND PreK guidelines.
 - Find subject area and developmental level identified in the Functional Scheme Assessment.
3. Language Arts TEKS: Elementary
 - a) In the Kinder level, locate a skill that corresponds to the skill you would like to address. Note the Strand and Skill (Number and Letter).
 - b) Find and note the corresponding Strand and Skill at the student's current grade level.
4. Write the goal combining language from each column.
 - a) May be helpful to look at FIELA Curriculum for ideas.
 - b) Cite the TEKS Strand and Skill
 - c) Cite the areas of the ECC that are addressed

Language Arts Lesson Plan

Goal and Areas of Study

As a precursor to the development of handwriting skills, the student will employ both hands to independently reach for and grasp objects with either hand. Measured as reaching out and grasping at least five objects within a forty-minute period.

- TEKS: Language Arts 2(E)
- Expanded Core Curriculum: Assistive Technology, Compensatory Skills, Sensory Efficiency
- General Education Lesson: Students will produce a minimum of three pages of written text in response to reading a story.

Active Learning Objective

The student will tactually explore objects related to the story. Placed inside the “Little Room” learning environment (on top of a resonance board), the student will independently reach out and grasp objects with either hand by tangling her fingers within the object.

Materials

Little Room, resonance board, variety of objects.

Note: Objects should be easily “graspable”, either soft materials or ones which have properties that allow her fingers to become entangled or enmeshed. Include objects that can be directly related to the story. Objects should take into account the student’s current interests as indicated on the Active Learning Planning Sheet or other forms of documentation.

Process

1. The student lies on her back on top of the resonance board and the Little Room is lowered on top of her.
2. The adult observes the student’s interactions with the objects and documents her actions.
3. Documentation: The adult should make note of the following information:
 - The objects in which the student showed interest.
 - The manipulative and exploratory techniques the student used with the object.
 - The amount of time the student interacted with the object.

Notes

This process should take place on a regular basis, over a period of time, rather than in a single session. Objects presented in the Little Room should be modified over time to accommodate the changing interests and skills of the student as well as the topics presented in readings.

Science Goal

High School Physical Science in Dynamic Learning Maps Essential Elements

Domain: PS3 Energy, Energy Topic: PS3.B: Conservation of Energy and Energy Transfer

Skills from Functional Scheme:

- Fine Motor (6-9 months): Explores the characteristics of an object
- Gross Motor (6-9 months): Prone: Moves arms and legs simultaneously
- Object Perception (3-6 months) Explores objects based on their tactile qualities
- Haptic-Tactile Perception (3-6 months): Withdraws the hand if touching something too hot

Initial Level	Precursor Level	Essential Element	High School	Finished Goal
Compare relative difference in temperature (warmth, coldness) of two liquids.	Compare the temperatures of two liquids of different temperatures before and after combining.	Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution.	Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system.	When provided with an Active Learning environment where two or more containers have objects of different temperatures or objects placed in liquids of a different temperatures the student will use his feet, hands, and mouth to compare the temperature of the liquids and the objects for a period of 15 minutes in a 20 minute session.

Possible Active Learning Activities

- In a Little Room fitted with a variety of objects that have different temperatures (metal, wood, cloth, warmed rice bag, net bag of glass marbles or pebbles, etc.) allow the student to explore and compare objects with hands, feet, and mouth.
- Using a Support Bench with two containers of water (one very cold with ice cubes, rocks and sponges and one with warm water with rocks, sponges, and brazil nuts) allow the student to explore objects and water using hands, feet and mouth. Alternate position of containers from hands to feet.
- Using a HOPSA Dress on a Track or Stand position two containers (one with hot water bottles or warmed rice bags and a mix of ping pong and golf balls and one with cold packs and a mix of plastic pegs and metal heavy chains.
- In supported sitting offer the child a variety of objects to place into either a cold-water tub or a hot-water tub.

Watch for child's preference of temperature, if he/she withdraws hand from water if it is too cold or hot, what he/she will touch with mouth, hands and feet.

Notes

There is no specific science period, but rather the child has many opportunities throughout the day for this type of exploration and comparison in a variety of Active Learning Environments.

Social Studies Goal

§113.12. Social Studies, Grade 1 - TEKS

(17) Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:

(A) use a simple timeline to distinguish among past, present, and future;

<u>Functional Scheme Assessment</u>	<u>Little Texans, Big Futures</u>	<u>Texas Early Learning Pathways (Texas Rising Star)</u>	<u>Social Studies Texas Essential Knowledge and Skills (TEKS) 113.11 Elementary</u>	Finished Goal
<p>Auditory Perception (3-6 months): Reaches out towards sound-producing objects.</p> <p>Turns; his; eyes towards the cause of a sound. (no)</p> <p>Language Non-Verbal Communication (6-9 months):</p> <p>Listens intently to familiar words. (beginning)</p>	<p>Turns toward familiar voices; looks intently at new faces (beginning)</p>	<p>Understands the order of common events and time intervals (yesterday, today, breakfast, lunch) (beginning)</p>	<p>(14) Social studies skills. The student communicates in oral and visual forms. The student is expected to:</p> <p>(A) place events in chronological order;</p>	<p>While interacting with an adult at the beginning or end of an independent or interactive Active Learning activity, the student will indicate that he is listening by turning toward the adult when the adult reviews what the students is about to do or what he has just done. Measure: turn to sound at least 2 times during a 3-minute interaction.</p> <p>The student will reach for a sound producing object used in a familiar activity when the adult produces a sound with that object while sharing what the child might play with or what the child did play with during an activity at least 3 times during a 5-minute interaction.</p>

Notes

There is no specific social studies period; rather the child works on these skills throughout the day. Before and after any Active Learning activity the adult will engage with the student to share what objects will be (were) played with during the child's play time. The concept of **now** and **past** are being introduced as you talk about what the student will do "now" and then reflect on what he just finished doing.

Look for signs that the child is attending to the names of specific objects and actions. For example, by listening to the adult's voice intently or reaching for an object when the adult produces a sound with the object.



This project is supported by the U.S. Department of Education Special Education Programs (OSEP). Opinions expressed here the authors and do not necessarily represent the position of the Department of Education.