

Narrative for Kindergarten Unit on Science – Plants and Animals

Gladstone Academy changed from a magnet school to a neighborhood school several years ago. The student population changed then, too from a blend of white, Asian, Hispanic and black students to a mostly Hispanic population. Our neighborhood has become the place where many Hispanic immigrants settle. Our school population has become about 75% Hispanic.

Our Dual Language program began this school year with 25 students in each of two Kindergarten classrooms. My classroom contains today 24 students; 17 Hispanic students, 4 Hispanic/white students, 2 white students and 1 black/white student. Among those twenty four are 10 Spanish speakers, 7 English speakers and 7 bilingual speakers. As we complete the school year, there are 14 readers and 10 students still reading English at the pre-level 1 stage. Gladstone is a Title 1 school with over 90% of our students qualifying for free lunch. Most of my students come from a home with two parents in residence. Usually both of those parents are working. Some of the mothers work nights in order to be home with the children during the day. Our parents are very supportive and involved. Field trips are filled with volunteers (even those who do not yet speak English) and I had 100% participation at my last Parent/Teacher conference. Parents are frequent visitors in the classroom and holiday parties are “family affairs”!

Our classroom is a unique blend of several cultures – American, Mexican and Cuban, predominantly. We are having so much fun getting to know ourselves and our friends

Unit Planning Guide

Science Plants and Animals

Unit big idea

Plants and animals have different structures that serve similar functions necessary for the survival of the organism. Core curriculum Science (3.1.D.)

Animals have
identifiable
structures

Plants have
identifiable
structures

Animals have
structures that
help them
survive

Plants have
structures that
help them
survive

Big, Big Idea: I want my students to understand that ...plants and animals have different structures that serve similar functions necessary for the survival of the organism. Core curriculum, Science, (3.1.D)

Big Idea/Essential Understanding: I want my students to understand that...animals have identifiable structures.

Language of Instruction: English **Grade Level:** Kindergarten

Preview Phase:

Content Objectives – Students will observe chicks living in a large glass habitat and then in plastic containers. The students will complete a drawing of a chick to record the structures they see in the chicks.

Language Objectives – Students will label their drawing of a chick with names of the structures – *wing, beak, eye, foot, head, leg, egg tooth.*

Strategies: TPR movement activity; a Venn Diagram; a Read Aloud; small group work.
Differentiation: TPR activity provides a non-threatening venue where L1 and L2 learners can “act like a chick” and little to no oral language is needed. The Venn Diagram will be constructed with words and pictures showing the structures of both the human and the chick. The completed Venn Diagram will be used by L1 and L2 learners for the labeling activity. The drawing of the chick will be completed and labeled in small groups.

Flexible Grouping: Each small group for the observation and labeling activity will be composed of L1 and L2 learners.

Instructional Assessment: There will be a Teacher Observation checklist used during small group work throughout the unit. As well as content and language objectives, we will also observe whether the student >shows respect for animals; >asks questions; >practices safety; >uses tools appropriately as part of our assessment of the hands-on activities.

Focused Learning Phase

Content Objectives – Students will name and describe the identifiable structures of several animals.

Language Objectives – Students will name a structure and use descriptive language as they describe each part of an animal.

Materials: T – chart with “Yes & No” headings; picture cards of animals (2 sets); non-fiction book about animals.

Strategies: Concept Attainment; Inside / Outside Circle; a Read Aloud.

Differentiation: The concept attainment activity will be whole group with “turn & talk” to your partner activities embedded in it; inside / outside circle activities done on our alphabet circle as pairs that change with each turn.

Flexible Grouping: “Turn and talk” partners are composed of one L1 and one L2; inside / outside partners are one L1 (outside circle) & one L2 (inside circle).

Instructional Assessment: Teacher Observation Checklist; observation of content and language objectives; on-going list of science assessments (see preview phase).
:

Application Phase

Content Objectives – Students will compare identifiable structures on two animals.

Language Objectives: - Students will use comparative language while recording the comparison on a Venn diagram, using both words and pictures.

Materials: large Venn diagram for whole class use; small Venn diagrams for pairs; picture cards; word banks.

Strategies: Venn diagram for the whole class; Venn diagrams for each pair of students; word bank of animal structures.

Differentiation: Whole group work on the class Venn diagram; Venn diagrams for each pair with word banks of words and pictures.

Flexible Grouping: partners for pair work will be one L1 and one L2 student.

Instructional Assessment: Teacher observation checklist; observation of content and language objectives; on-going list of science assessments (see preview phase).

Big, Big Idea: I want my students to understand that... plants and animals have different structures that serve similar functions necessary for the survival of the organism. Core curriculum, Science, (3.1.D)

Big Idea/Essential Understanding: I want my students to understand that... plants have identifiable structures.

Language of Instruction: English **Grade level:** Kindergarten

Preview Phase:

Content Objectives – Students will observe plants in the classroom and then on their tables. The students will complete a drawing of a plant to record the structures they see in the plants.

Language Objectives: - Students will label their drawing of a plant with names of the structures – *seed, roots, stem, branches, leaves, buds, flowers.*

Materials: plants; large Venn diagram; books about plants and seeds.

Strategies: TPR movement activity; a Venn Diagram; a Read Aloud; small group work.

Differentiation: TPR activity provides a non-threatening venue where L1 and L2 learners can “be a plant” growing from a seed to a plant in the sun where little to no oral language is needed. The Venn diagram will be constructed with words and pictures showing the structures of an ivy and a houseplant. The completed diagram will be used as a word bank for completing & labeling the plant drawing done in small groups.

Flexible Grouping: Each small group for the observation and labeling activity will be composed of L1 and L2 learners.

Instructional Assessment: There will be a Teacher Observation checklist used during small group work throughout the unit. As well as content and language objectives, we will also observe whether the student > asks questions; > practices safety; > uses tools appropriately—as part of our assessment of the hands-on activities.

Focused Learning Phase

Content Objectives – Students will compare identifiable structures on two plants – a houseplant and a succulent.

Language Objectives: - Students will use comparative language while recording the comparison on a Venn diagram, using both words and pictures.

Materials: large Venn diagram for whole class use; small Venn diagrams for pairs; picture cards; word banks.

Strategies: Concept Attainment; Inside / Outside Circle; a Read Aloud.

Differentiation: The concept attainment activity will be whole group with “turn and talk” to your partner activities embedded in it; inside / outside circle activities done on our alphabet circle as pairs that change with each turn.

Flexible Grouping: “Turn and talk” partners are composed of one L1 and one L2; inside / outside partners are one L1 (outside circle) and one L2 (inside circle).

Instructional Assessment: Teacher observation checklist; observation of content and language objectives; on-going list of science assessments (see preview phase).

Application Phase

Content Objectives – Students will name and describe the identifiable structures of several plants.

Language Objectives: - Students will name a structure and use descriptive language as they talk about that identifiable structure.

Materials: T – chart with “Yes & No” headings; picture cards of plants (2 sets); non-fiction books about plants.

Strategies: Venn diagram for the whole class; Venn diagrams for each pair of students; word bank of plant structures.

Differentiation: Whole group work on the class Venn diagram; Venn diagrams for each pair with word banks of words and pictures.

Flexible Grouping: partners for pair work will be one L1 and one L2 student.

Instructional Assessment: Teacher observation checklist; observation of content and language objectives; on-going list of science assessments (see preview phase).

Lesson 1 Science Plants and animals have different structures that serve similar functions necessary for the survival of the organism Learner objective 19. Observe and compare the structures and behaviors of different kinds of plants and animals (3.1.D.a).

Purpose for Listening Grade level objective 22. Listen for enjoyment. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 23. Listen for information. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 24. Listen for simple directions, with teacher assistance. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10)

Listening Behavior Grade level objective 25. Demonstrate listening behaviors (e.g., prepares to listen, listens without interruptions) with teacher assistance. (LS1BK) (CA5, CA6, 1.5)

Discussion and Presentation Grade level objective 26. When sharing ideas or experiences speaks audibly. (LS2AK) (CA1, CA6, 2.1, 2.3) 27. When sharing ideas or experiences uses age-appropriate vocabulary. (LS2AK) (CA1, CA6, 2.1, 2.3)

Lesson 2:

Science Plants and animals have different structures that serve similar functions necessary for the survival of the organism (3.1.D). Learner objective 19. Observe and compare the structures and behaviors of different kinds of plants and animals (3.1.D.a).

Purpose for Listening Grade level objective 22. Listen for enjoyment. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 23. Listen for information. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 24. Listen for simple directions, with teacher assistance. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10)

Listening Behavior Grade level objective 25. Demonstrate listening behaviors (e.g., prepares to listen, listens without interruptions) with teacher assistance. (LS1BK) (CA5, CA6, 1.5)

Discussion and Presentation Grade level objective 26. When sharing ideas or experiences speaks audibly. (LS2AK) (CA1, CA6, 2.1, 2.3) 27. When sharing ideas or experiences uses age-appropriate vocabulary. (LS2AK) (CA1, CA6, 2.1, 2.3)

Lesson 3:

Science Plants and animals have different structures that serve similar functions necessary for the survival of the organism (3.1.D). Learner objective 19. Observe and compare the structures and behaviors of different kinds of plants and animals (3.1.D.a).

Purpose for Listening Grade level objective 22. Listen for enjoyment. (LS1AK) (CA5, CA6,1.5, 1.6, 1.10). 23. Listen for information. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 24. Listen for simple directions, with teacher assistance. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10)

Listening Behavior Grade level objective 25. Demonstrate listening behaviors (e.g., prepares to listen, listens without interruptions) with teacher assistance. (LS1BK) (CA5, CA6, 1.5)

Discussion and Presentation Grade level objective 26. When sharing ideas or experiences speaks audibly. (LS2AK) (CA1, CA6, 2.1, 2.3) 27. When sharing ideas or experiences uses age-appropriate vocabulary. (LS2AK) (CA1, CA6, 2.1, 2.3)

Lesson 4:

Science Plants and animals have different structures that serve similar functions necessary for the survival of the organism (3.1.D). Learner objective 19. Observe and compare the structures and behaviors of different kinds of plants and animals (3.1.D.a).

Purpose for Listening Grade level objective 22. Listen for enjoyment. (LS1AK) (CA5, CA6,1.5, 1.6, 1.10). 23. Listen for information. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10). 24. Listen for simple directions, with teacher assistance. (LS1AK) (CA5, CA6, 1.5, 1.6, 1.10)

Listening Behavior Grade level objective 25. Demonstrate listening behaviors (e.g., prepares to listen, listens without interruptions) with teacher assistance. (LS1BK) (CA5, CA6, 1.5)

Discussion and Presentation Grade level objective 26. When sharing ideas or experiences speaks audibly. (LS2AK) (CA1, CA6, 2.1, 2.3) 27. When sharing ideas or experiences uses age-appropriate vocabulary. (LS2AK) (CA1, CA6, 2.1, 2.3)