

LESSON PLAN

Inquiry and Project Based Learning

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OBJECTIVES OF LESSON PLAN

- Students will be guided to develop questions around the topic of animal (in this case our guinea pigs) interaction with humans and their environment, conduct research, record their acquired knowledge, create a presentation based on their findings, reflect on the process, and communicate this to others.
- The teacher's objective is to trigger curiosity among the students; the desire to learn will generate a contagious enthusiasm within the classroom community, will promote engagement, collaboration, stewardship, and compassion. Students will be able to expand their knowledge by exchanging ideas, comparing and contrasting, creating charts, while refining their critical thinking, writing, and social skills.



MODES OF LEARNING

When designing small groups, the teacher will both address the needs of the students and ensure they are able to process and retain information, by keeping in mind the four types of learners. Ideally, the teacher will identify the learning styles of the students and combine these within the small groups in order to boost their academic confidence.



MODES OF LEARNING

Collaborative work

Visual learners: will create charts, diagrams, illustrations of their observations

Auditory learners: will record data based on audio recordings, or on the concepts that another student explains

Reading and writing learners: will read information from various sources, take notes, write compositions

Kinesthetic learners: will create, recreate, and practice tactile processes; will engage, and help others engage in personal experiences

LESSON PLAN MODEL

- Teacher initiates inquiry-based learning by formulating a basic, simple question, that will generate more questions among the students. For example, teacher can ask students to define “guinea pig.” Is it really a pig? Where did guinea pigs originate from? (origin) Can guinea pigs survive in the wild, or are they only domesticated animals? (environmental effects) What role do guinea pigs play in various (given) countries?(cultural connections: food source; used for folk medicine; used in religious ceremonies) Are guinea pigs used for experiments? Since when? Have these experiments with guinea pigs led scientists to any discoveries? (scientific exploration).
- Students will read informational texts for integrating knowledge and ideas (LAFS.3.RI.3; LAFS.4.RI.3; LAFS.5.RI.3) while building listening and public speaking skills (LAFS.3.SL.3; LAFS.4.SL.3; LAFS.5.SL.3).
- Students will research, compile relevant information, write (LAFS.3.W.3; LAFS.4.W.3; LAFS.5.W.3) and present results to others (LAFS.3.SL.2).

LESSON PLAN MODEL

Each student has a specific assignment within the small group, which does not limit the student exploration and collaboration in other duties.

- Students will compare and contrast the two guinea pigs, Mr. White and Harper; students will compare and contrast guinea pigs and humans (SC.3L.14; SC.5.L.14).
- Students will study the anatomy of the guinea pig, its internal parts and external structures. (SC.3L.14; SC.5.L.14). In connection to this, students will incorporate research about the ideal diet to help the guinea pigs grow and remain healthy. Students will design a menu, will create a chart displaying jobs and duties for students in charge of feeding the pets. For example, meal preparation, the discussion of safety and hygiene habits when handling food and animals, are duties that will promote education, leadership and responsibility.
- Students observation, data collection and record, will enhance student understanding of animal-human interactions, interdependence, and interactions with their environment to satisfy their basic needs (SC.3.L.17; SC.4.L.17).

STANDARDS

- **Science: Life Science**
- SC.3.L.14; SC.5.L.14 **Organization and development of living organisms**
- All plants and animals, including humans, are alike in some ways and different in others.
- All plants and animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce.
- Humans can better understand the natural world through careful observation.
- SC.3.L.17; SC.4.L.17 **Interdependence**
- Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.

STANDARDS

- **English Language Arts**
- LAFS.3.RI.3; LAFS.4.RI.3; LAFS.5.RI.3 **Reading standards for informational text:** integration of knowledge and ideas.
- LAFS.3.W.3; LAFS.4.W.3; LAFS.5.W.3 **Writing standards:** research to build and present knowledge.
- LAFS.3.SL.3; LAFS.4.SL.3; LAFS.5.SL.3 **Standards for speaking and listening.**
- LAFS.3.SL.1: **Comprehension and collaboration.**
- LAFS.3.SL.2: **Presentation of knowledge and ideas.**

ASSESSMENT

- Teacher can choose to evaluate the extent to which students demonstrate the learning objectives were achieved by using different methods of assessment such as the formative or summative strategies. Given the variety of learning styles within our students, it is important to use more than one method of assessment to determine each student learning outcome.
- Examples of formative assessment include students' performance during observations, read aloud, oral answers to reading comprehension questions, and the proper use of tools such as technology. This assessment generally takes place during the learning process.
- Examples of summative assessment include the traditional quizzes, tests, written reports, journals, portfolios. This assessment takes place after the assigned work has been completed.
- In both types of assessments, the teacher is responsible for providing rubrics to students which will display the criteria for grading written pieces, investigations, class discussions and presentations.

EXTENDED ACTIVITIES

Project-based learning

1. Students can design and build a habitat for the guinea pigs, based on the close and detailed observation of their needs, and after conducting research on how to better meet these.
2. Students can design and build a vegetable garden that will help them sustain the guinea pigs' diet.
3. Students can explore different types of writing (expository, descriptive, persuasive, narrative), practice the writing process (draft, write, revise, edit), and publish books that they can read to other children, use to build a school library, give as gifts to organizations, or even sell and use funds to cover expenses derived from having pets. The book characters could be the guinea pigs, the students, the teacher; students can generate ideas for setting and plot from their real-life experiences and observations of animal-human interactions.