

# **STEAM Lab – Creating an Enriched Environment for Our Guinea Pigs Kindergarten**

**Objectives:** Students will work in a team to design an enrichment toy for the guinea pig enclosure

**Materials:** Observation Pages, Crayons, Pencils, Treats for Guinea Pigs (carrots, apple, spinach, parsley, bread, etc) Building Materials (boxes, cardboard tubes, etc) Small Plastic Swimming Pool

**Engage:** Show the following videos:

<https://www.stlzoo.org/animals/enrichmenttraining/animalenrichment/>

<https://www.youtube.com/watch?v=Kb01iML5SQI>

<https://www.youtube.com/watch?v=DQYEWgBc9jc>

After watching the videos discuss the following questions – Why do zookeepers add enrichment activities to animal enclosures? How do zookeepers decide which activities would be enjoyed by each animal?

**Procedure:**

- Give students a copy of the Guinea Pig

## Observation Page

- Put guinea pigs in the swimming pool with various treats and cardboard items
- Allow students to observe the guinea pigs
- Have several students share their observations about what the guinea pigs liked and how they could tell
- In small groups allow students to brainstorm, design, draw and label an enrichment toy they could build
- After sharing the design each group will gather materials and build their idea
- When it is finished they will test the design by putting it in the enclosure with the guinea pigs and observing the guinea pigs reactions

**Reflect:** In a large group encourage students to share their designs and observations

### **Standards:**

#### [CSS.ELA-Literacy.SL.K.1](#)

Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.

#### [CCSS.ELA-Literacy.SL.K.1.a](#)

Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).

[CCSS.ELA-Literacy.SL.K.1.b](#)

Continue a conversation through multiple exchanges.

[CSS.ELA-Literacy.SL.K.5](#)

Add drawings or other visual displays to descriptions as desired to provide additional detail.

[CCSS.ELA-Literacy.SL.K.6](#)

Speak audibly and express thoughts, feelings, and ideas clearly.

- Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- K-2-** information about a situation people want to  
**ETS1-** change to define a simple problem that can be  
**1.** solved through the development of a new or improved object or tool.
- Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- K-2-** Develop a simple sketch, drawing, or physical  
**ETS1-** model to illustrate how the shape of an object  
**2.** helps it function as needed to solve a given problem.
- Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
- K-2-** Analyze data from tests of two objects designed to  
**ETS1-** solve the same problem to compare the strengths  
**3.** and weaknesses of how each performs.

## Guinea Pig Observation

Guinea Pigs Like

Guinea Pigs Don't Like