Lesson 22 Video: MEA Animal Meal Planning

In this video, SaM-1 introduces a Model Eliciting Activity (MEA) challenge for the students. This video provides meal planning information to add to the knowledge students gained throughout the unit. Students will be asked to develop a varied diet for a chimpanzee at the CPALMS Rehabilitation and Conservation Center based on the color, shape, texture, and hardness of the food.

In the optional twist, students will need to modify their original diet for a senior chimpanzee. The optional twist also has a SaM-1 video to introduce the twist challenge.

Attachments

Accessible Version: Accessible version of thevideo content in PDFformat.

General Information

Subject(s): Science, Mathematics, English Language Arts
Grade Level(s): 3
Intended Audience: Students

Keywords: MEA, properties, SaM-1, Sam, meal planning, meal, color, texture, hardness, shape, nutrition, enrichment, Cincinnati Zoo, diet, engineering design process, engineering design, fraction, chimpanzees, diet, sensory, model eliciting activity, conservation, primates, great apes
Instructional Component Type(s): Original Student Tutorial

Resource Collection: CPALMS Physical Science with SaM-1 Videos

Source and Access Information

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Aligned Standards

Name	Description
	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 *topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and

LAFS.3.SL.1.1:	other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion.
LAFS.3.W.3.8:	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
MAFS.3.NF.1.3:	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.* d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
SC.3.P.8.3:	Compare materials and objects according to properties such as size, shape, color, texture, and hardness. **Clarifications:** ** Florida Standards Connections: MAFS.3.MD.2.4; MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.

Suggested Tutorials

Name	Description
Lesson 23 Video: MEA Researching Sea Turtle Nesting Temperatures :	In this video Sam-1 introduces a Model Eliciting Activity (MEA) challenge. Students will take their prior experiences from the properties unit and apply their knowledge of investigating sea turtle nesting temperatures. Students will develop a hypothesis, design an experiment, and support their reasoning to determine how to best study different methods for cooling sea turtle nesting areas.
Lesson 22 Video: MEA Animal Meal Planning Part 2:	In this video, SaM-1 introduces a part 2 twist to the Model Eliciting Activity (MEA). In the optional twist, students will need to modify their original diet for a senior chimpanzee. The first video provided meal planning information to add to the knowledge students gained throughout the unit to start the challenge.
Lesson 21 Video: MEA Entertaining Animals Part 2:	In this video, SaM-1 introduces a part 2 twist to the Model Eliciting Activity (MEA) challenge. In the optional twist, students will need to design a prototype toy suitable for a Florida panther with an injured leg. This first video provides background information on why and how animals need to be entertained.
Lesson 21 Video: MEA Entertaining Animals:	In this video, SaM-1 introduces a Model Eliciting Activity (MEA) challenge for the students. This video provides background information on why and how animals need to be entertained. Students will have the opportunity to apply what they learned about physical properties and measuring linear lengths as they are asked to design a prototype toy for Florida panthers housed at the CPALMS Rehabilitation and Conservation Center. In the optional twist, students will need to design a prototype toy suitable for a Florida panther with an injured leg. The optional twist also has a SaM-1 video to introduce the twist challenge.
Lesson 20 Video MEA Animal Habitats Part 2:	In this video, SaM-1 introduces a part 2 twist to the Model Eliciting Activity (MEA) challenge. In the first video, students were asked to design a habitat for an elephant or gorilla that will be housed at the CPALMS Rehabilitation and Conservation Center. In this twist, students will need to modify their design to accommodate a senior elephant or gorilla.
Lesson 20 Video: MEA Animal Habitats:	In this video, SaM-1 introduces a Model Eliciting Activity (MEA) challenge for the students. This video provides habitat information to help the students use the knowledge they gained throughout the unit. Students are asked to design a habitat for an elephant or gorilla that will be housed at the CPALMS Rehabilitation and Conservation Center. Students will need to describe the physical properties (color, shape, texture, hardness) of the features they selected for the habitat while explaining the rationale behind their design choices. In the optional twist, students will need to modify their design to accommodate a senior elephant or gorilla. The optional twist also has a SaM-1 video to introduce the twist challenge.
Lesson 17 Video: Sea Turtle Expert Interview :	In this SaM-1 video, students will use their listening and writing skills to watch a video to learn about the affects temperature has on sea turtles' nests, preparing them for an investigation in subsequent lessons within the unit.
Lesson 16 Video: Reading & Recording Temperature :	In this SaM-1 video, students will learn how to make observations based on the property of temperature using thermometers, while representing the data in line graphs.

Lesson 15 Video: Observing Sea Turtles:	In this SaM-1 video, students will use their listening and writing skills to learn about sea turtles, preparing them for subsequent lessons in the unit.
Lesson 13 Video: Introduction to Displacement :	In this SaM-1 Video, students will learn how to find the volume of irregular objects using a graduated cylinder and the displacement method.
Lesson 11 Video: Introduction to Volume:	In this SaM-1 video, students will learn how to use a graduated cylinder to make observations based on the volume of liquids.
Lessons 7-9 Video: Measuring Mass with Solids and Liquids:	Help SaM-1 make observations and sort items based on the mass of materials using an equal-arm balance. In this video, you will also become familiar with metric units for measuring mass: gram and kilogram.
Lesson 3 Video: Introduction to Length :	In this video, students will make observations based on the property of size, specifically length. Students will learn about the metric and customary measurement systems and use line plots to organize and sort data.
Lesson 1 Video: Observations:	This SaM-1 video begins the Grade 3 Animals: Rehabilitation and Conservation Center Unit on Physical Properties. Students learn that making observations is an important aspect of scientific study. Students will observe different properties and use these properties throughout the unit.
Equal Fractions in Disguise:	Learn how different-sized fractional parts can represent the same amount of a whole, different-sized fractional parts in different orientations can represent the same amount of a whole, and a number line can be used to represent fractional parts of a whole.