

Jelly Bean Lesson Plan

Teacher

Date

School

SLE # NS.1.4.1: Communicate observations orally, in

writing, and in graphic organizer, NS.1.4.8 Develop a hypothesis based on prior knowledge and observations, NS.1.4.11: Generate conclusions based on evidence, OV.1.4.1: Use subject-related information and vocabulary, OV.1.4.6: Communicate ideas and information with clarity

Objectives:

Content: I will communicate observations orally, in writing, and in graphic organizers.

I will develop a hypothesis based on prior knowledge and observations.

I will generate conclusions based on evidence.

Language: I will use at least 3 subject-related pieces of information and/or vocabulary words while working with other students.

I will communicate ideas and information with clarity to the other people in my group and in my writing.

Assessment: The teacher will assess the students' participation based on a rubric. See attached rubric.

Technology/Materials: Jelly Belly jelly beans, cups, hand lenses, Data table, and Jelly Belly classification key

Vocabulary: conclusion, evidence, observations, hypothesis, prediction, classify

Bloom's: Remembering Understanding Applying Analyzing Evaluation Creating

Questions: How many of you have ever tried to classify an object? What were some of the characteristics you looked at while you were classifying? What do you think would happen if you had to classify a jelly bean that you could only look at but not smell or taste? Describe what you would do.

High Yield Strategies: Identifying similarities & Differences Summarizing & Note Taking Cooperative Learning

Reinforcing Effort & Providing Recognition Setting Objectives & Providing Feedback Generating & Testing Hypotheses

Cues, Questions & Advanced Organizers Homework & Practice Nonlinguistic Representations

Instructional Strategies:

Set: Who can tell me what it means to classify something? What are some examples of things that you could classify or sort? (Allow students to tell you something they sort/classify and why they do it. Keep stressing the word classify. You can even share with them a way you classify things, such as clothes, shoes, files, etc.) Up on the board there are some pictures. All of them have one major thing in common. Can you figure it out? (Sports) I have given each group of students a set of the same cards as you see on the board. (1 set per 3-4 students) What I would like you to do is sort and classify the pictures in any way that you think would work. Once you figure out a way to sort and classify them, I want you to write down how you are classifying them. So for example, if I sort my shoes by color, then I am classifying them as brown shoes or black shoes, or even dress shoes or tennis sneakers. Once you sort and classify the pictures, find another way to sort and classify them. I want you to figure out as many different ways to do this as possible in X minutes. (It is up to you to decide a time.) Once they are done, bring them back to a whole group and allow students to tell you how they classified the pictures and show the class using the big pictures. Have the students explain why they classified them that particular way. You can even show them a way YOU would classify them. After our activity, is there 1 correct way to classify an object? No, because we didn't set any guidelines. We sorted the pictures how we felt we needed to. This was how scientists classified living and non-living things up until about 1749. In 1749 Carl Linnaeus came up with a way to classify things. Before that people were naming objects at random. If they saw a red bird, they called it a red bird. Someone else could see the same bird and say, "Oh it has a red bill. I'm going to call it a Red Billed Boston Bird." But both people were looking at a Cardinal! After

Linnaeus came out with his classification system, scientists could look at a living thing and classify it based on its color, how many limbs it has, what type of hair/feathers, etc. So now, we can use our Jelly Belly Jelly Bean classification sheet. In science we call these a dichotomous key.

Model: The teacher will have a picture of a jelly bean. As a whole group, the class will fill in the data chart's first 2 columns. Then the students will use the dichotomous key to classify the jelly bean. After the teacher models use of the key, the students will then classify their jelly beans.

Guided Practice/Strategies:

Intervention Strategies: The teacher can assist students who need the help by modeling the key again, or walking around the room and assisting those students who need more help on a one on one basis.

Accommodations & Modifications (IEPs) The teacher can pair or group students based on the needs of the classroom.

Independent Practice/Activities: The students will each get 5 jelly beans to classify using their dichotomous key. To start, the students should write a brief description of their jelly bean and make a prediction based on their description. After making their prediction, the students will use their key to find out what flavor of jelly bean it actually was. While the students are classifying their jelly beans, they can make tally marks for each color. When done, they can create a bar graph depicting which color jelly beans were most prevalent. (see enrichment)

Enrichment Activities: Students will then graph their results based on the following colors: black/purple, red/pink, yellow/orange, green, blue. Students will make tally marks for each one they had and then can create a bar graph. Students can also create their own bean, drawing a picture of it, naming it and describing the taste.

Closure: The teacher will have the students journal about the following questions: Predict what would have happened if you tried to classify the jelly beans without using a dichotomous key. How is this process similar to what scientists are doing with living organisms? If you had to create a dichotomous key to classify an alien, what key characteristics would you use to classify the alien?

Homework: See enrichment table above for homework.

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