Dinosaurs

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Outline of 10 Unit Lesson Topics for Thematic Unit

Grade Level: 2nd
Lesson 1: Introduction to Dinosaurs

Lesson Objectives:
Students will:
1. List the various characteristics of dinosaurs i.e. when they lived, what they ate, size, how they moved, etc. [Knowledge]
2. Describe what they learned from the lesson to another classmate. [Comprehension]

Lesson Description:

This lesson is going to be an introduction to dinosaurs. I want to know the students’ prior knowledge about dinosaurs, so I know where to head the unit on dinosaurs. At the beginning of the lesson I am going to put up an overhead with a list of questions to see what the students know about dinosaurs. Once students have individually answered the questions at their desks, I am going to give a KWL (Stephens & Brown, 2000, pg 47). First I will have students in groups of three to brainstorm and discuss what they already know about dinosaurs. Then we will come back together as a class to discuss what each group came up with, and the responses will be written on the board. I will do this same procedure when asking students “what they want to know” and “what they learned.”

After giving the KWL, the whole class will read together the book Dinosaur by Rod Theodoroue. Every student will have a copy of the book because it is in his or her Language Arts Reader, and all students will participate in reading using the popcorn method. After reading the book, I will have students get back into their groups of three to discuss anything else they may want to fill in on the KWL chart from the categories “what I want to know” and “what I learned.” Then we will come back together as a class to discuss the KWL chart and the book Dinosaur.
Lesson 2: Meat and Plant Eaters

Lesson Objectives:
Students will:
1. Identify the differences between meat eaters and plant eaters’ teeth [Knowledge].
2. Compare the differences between meat and plant eating dinosaurs [Analysis].
3. Construct a menu for a dinosaur, and draw the dinosaur and its food source [Application].

Lesson Description:

At the beginning of this lesson, I am going to have the class hypothesize about what the dinosaurs ate, and different characteristics of meat and plant eating dinosaurs. To do this I am going to use the strategy Brainstorming (Stephens & Brown, 2000, pg 30) to organize the students’ hypotheses about dinosaurs. Once the assumptions are made we are going to move into a science activity where the students and I will explore our teeth with a mirror. We will look at the shape, width, length, and surface of them to describe what types of food we eat with certain teeth. From the discussion about human teeth we will use the information to talk about dinosaurs teeth, and what type of teeth meat eating dinosaurs had compared to plant eating dinosaurs. I will show pictures of dinosaur’s teeth to have them decide if the dinosaur was a meat or plant eater.

Once students have a good understanding of plant versus meat eaters, I will assign students into cooperative learning groups for the next activity. Each group will be assigned a dinosaur; using the book Dinosaur Dinners, by Shaaron Cosner, as a reference, groups must come up with a menu for their dinosaur. On the menu students have to write the name of their dinosaur, write what their dinosaur would eat, draw a picture of their dinosaur, and draw a picture of the dinosaur’s food source. Once students have finished their menus, each group will present their dinosaur to the class.
Lesson 3: Location of Dinosaurs

Lesson Objectives:
Students will:
1. Identify the state’s name from which their dinosaur lived in [Knowledge].
2. Determine where their dinosaur lived using the reference books [Application].
3. Locate on the map of the United States what state their dinosaur lived [Knowledge].

Lesson Description:

At the beginning of this lesson I will have a map of the U.S. pulled down and I am going to do a brief overview of the geography of the U.S. I will talk about things like there are 50 states, direction, North, South, East, and West, and what states are considered to be in these directions.

Then I am going to do a read-aloud with the book *Hunting the Dinosaurs* by Dougal Dixon and *Life and Death of Dinosaurs* by Pascale Chenel. I will be reading specific sections from each book that relates to the lesson states that the dinosaurs lived in. When doing this activity I will use the strategy Teacher Read-Aloud from Stephens and Brown’s (2000, pg 174) book.

After the read-aloud I am going to assign each student a dinosaur. Using the books above and the material from the website enchantedlearning.com, students will have to identify what state their dinosaur lived in. Adjusting the strategy Reading Across the United States (Lindquist, 1997) I will have a map of the U.S. with a little picture of each dinosaur taped to the state that it lived in, one dinosaur per student. The pictures will be small enough so that they do not cover the state’s name. Each student will have a larger picture of the dinosaur that it corresponds to from the map with the small dinosaur in its respective state. Every student will come up to the map match his/her dinosaur picture to the one on the map, and tape the large dinosaur to the state it lived in. Once every student has taped their dinosaur to the map, I am going to go around the room and have each student say the
name of his/her dinosaur and the name of the state that it lived in to reiterate what they have just explored for themselves.
Lesson 4: Food Chains

Lesson Objectives:
Students will:
1. Explain what primary and secondary consumers are and what producers are [Comprehension].
2. Compare and contrast the different defense mechanisms used by dinosaurs [Analysis].

Lesson Description:

    I am going to begin this lesson by using the strategy Do You Know…? (Stephens & Brown, 2000, pg 178) to pose many exploratory questions to the students, then tell them that these are the questions we will be exploring during the lesson. The rest of the lesson will be pretty much teacher orientated. I will be lecturing about food chains, the definition of and description of secondary consumers, primary consumers, and producers. Then I will give examples and pictures of dinosaurs that are primary and secondary consumers. Students will make guesses on what dinosaurs they think are primary or secondary consumers.

    After the discussion on food chains I am going to describe the defense mechanisms that various dinosaurs used when being attacked. I will explain that this concept of protection devices relates directly to food chains because when secondary consumers tried to eat primary consumers both dinosaurs had to use defense to fight. After this I am going to show the students pictures of dinosaurs and the defense that they used. Meat eaters and plant eaters had certain ways of fighting that were shared among many dinosaurs. So this will give students a visual to show them that there is a direct relationship between the concepts of secondary and primary consumers and defense mechanisms.
Lesson 5: Time Line of When Dinosaurs Lived

Lesson Objectives:
Students will:
1. Identify the three time periods, Jurassic, Cretaceous, and Triassic [Knowledge].
2. Differentiate between what time period was the oldest and what came after it [Analysis].
3. Explain the relationships between food that dinosaurs ate, the time period that dinosaurs lived, and the location of dinosaurs in the U.S.A. [Comprehension].

Lesson Description:

To begin this lesson, I am going to start out with the strategy I Wonder Why…(Stephens & Brown, 2000, pg 74). I am going to ask students I wonder why questions to engage them in their thinking about dinosaurs and to get them thinking about the relationship between the concepts of time period lived, location lived, and food that they ate. All my questions will be centered on these three concepts to prepare students thinking for the lessons, which will be connecting these three concepts together.

For the lesson I will have made a large time line that hangs on the blackboard. On the time line I will have the dates in which the Jurassic, Cretaceous, and Triassic Periods extended from, the plants that lived during this time, and the location of those plants in the U.S. As a class we will discuss the time line and information on it. Then I am going to say a dinosaur and what time period it lived, and I will ask students if the dinosaurs lived before or after another time period. So students will be making the relationships of early, middle, and late to understand what time periods came first, next, and last. Then during the discussion of what time period dinosaurs lived I will have students classify them as meat or plant eaters. So for instance if a certain dinosaur was a plant eater and say only ate Leptocyaas plants that only grew in Western North America during the Triassic Period, then only that dinosaur could live during the Triassic Period. Once these plants died off so would the
dinosaurs. So from this lesson, I want students to start realizing that the location of the dinosaurs was directly related to what the dinosaurs ate, and to why they lived in a certain time period. This is the lesson that I want students to start seeing and making the connections between the different concepts, so my hope is that by having the time line as a visual aid for students to look at they will be able to see the similarities between the concepts.
Lesson 6: Addition and Dinosaurs

Lesson Objectives:
Students will:
1. Solve addition and subtraction problems focused on dinosaurs [Application].
2. Compose written facts about three specified dinosaur [Synthesis].

Lesson Description:

In this lesson, students will be given three different worksheets two worksheets will have addition problems and one worksheet will have subtraction problems. The first addition worksheet has a key with letters associated with the numbers 0-10. After students solve a problem, the sum has to be associated with the letter it corresponds with. The letters that are substituted for the numbers from the letter code will spell out a dinosaur’s name. The second worksheet is just like the first, but instead of addition problems there are subtraction problems that the students have to solve to decode the dinosaur’s name. The last worksheet has a picture of a dinosaur all divided up with addition problems. Students solve the answers and match the sum with the color associated with that number. Then students color in the picture of the dinosaur.

Once students finish their math worksheet they have to write two to three sentences about each of the three dinosaurs that appeared on their worksheets. In their descriptions they have to include things like food ate, location, habitat, defense, and/or time period lived. For needier students I will have them write one sentence for each dinosaur, but in each sentence they must include a different characteristic for each dinosaur. So these students will only have to submit the three sentences and the three math worksheet. I will be circulating around the room, helping these students with their sentences. The other students will be submitting the three math worksheets and a total of six to nine sentences about the dinosaurs they had.
For students who may get done early when working on the sentences I will be using the strategy What’s In The Picture (Stephens & Brown, 2000, pg.40-41). I will have a big dinosaur picture hanging up, and in their journals students will have to write what they see in the picture.
Lesson 7: How Big Were the Dinosaurs?

Lesson Objectives:
Students will:
1. Understand the size range of dinosaurs [Knowledge].
2. Compare the sizes of dinosaurs to things of the present and to other dinosaurs [Analysis].
3. Compose a written report on their findings of the different sizes [Synthesis].

Lesson Description:

Students will use measurement to get a visual sense of the size of the dinosaurs. I have handouts with different dinosaurs drawn to scale and in comparison with other dinosaurs, humans, cars, and other animals. All the objects are in the same picture so students can see the differences. Along with the handouts, I have a chart that accompanies it that has the length of each object and a comparison chart of the objects. I will have a list of questions based on the sizes of the different objects for the students to answer so they can see what the biggest and littlest dinosaurs were and to compare them to sizes they are familiar with like a car or human. Once students have answered the questions I am going to have them draw the length of the dinosaurs they just looked at using the scale one-inch equals five feet. However a chart will be given to students with all the math converted for students so that if they do not understand how to use the scale one-inch equals five feet, the lengths of the dinosaurs will be given to them in inches. Students will have a list of dinosaurs with their respective lengths, and they will draw the lengths on paper using the above scale/chart. After students have measured all the dinosaurs, we will devise a graph on the board as a class representing the sizes of the dinosaurs from the largest to the smallest.

After the class makes the graph and we have a chance to discuss our findings, students will begin to write a dialogue journal with me using the strategy Dialogue Journals (Stephens & Brown,
2000, pg 188). In the journal, students will write to me about the different sizes of the dinosaurs that they measured and any other pertinent information.

Lesson 8: Dinosaur Encyclopedia

Lesson Objectives:
Students will:
1. Categorize the various dinosaurs into their characteristics [Analysis].
2. Create a dinosaur report on an assigned dinosaur [Synthesis].
Lesson Description:

Start the lesson with the strategy Question of the Day (Stephens & Brown, 2000, pg. 42). I will put a question on the board for students to answer in their writing journals, and to start their thinking for the activity. After students write in their journals I am going to assign each student a dinosaur. They are going to research their dinosaur using the materials I have laid out for them in the classroom. Once they have found their dinosaur they have to write a report on their dinosaur including the following information; meat or plant eater, when it lived, where it lived, defense it used against attackers, habitat, how they moved, and any other pertinent information. At the top of their report students will be expected to draw a picture of their dinosaur. The report should be about one paragraph in length. Once everyone has completed their task I will collect all the written work and put the reports together into a Dinosaur Encyclopedia, which will eventually go into the classroom library.

Lesson 9: What Dinosaur is the Most Popular?

Lesson Objectives:
Students will:
1. Formulate survey questions to ask people [Synthesis].
2. Construct a bar graph representing the outcome of the survey [Application].

Lesson Description:

In this lesson I am going to have students as a class construct a survey to ask teachers, administrators, friends, parents, and adults what dinosaur they are the most familiar with. Once students have made their survey, and I modify the strategy Find Someone Who… (Stephens &
Brown, 2000, pg. 60) to work for this activity, each student will be assigned to ask two adults i.e. teachers, administrators, or faculty, and one student what dinosaur they are most familiar with. (This lesson would have to be preplanned so that people who are going to be asked would know the day and time that the second graders would be coming around to ask questions. Also the adults being asked would have to be supplemented with the questions before hand so that they were prepared to answer the questions when the students come around. This way there would not be a lot of distractions.)

After students receive their data, we will come back as a class and on the board the class will help in creating a bar graph to represent the answers from their survey. As a class we will have a discussion to analyze the results from the survey i.e. most popular, least popular, number of dinosaurs that were mentioned by people etc.

Lesson 10: My Dinosaur

Lesson Objectives:
Students will:
1. Create a fictional dinosaur [Synthesis].
2. Compose a story about the life of the invented dinosaur [Synthesis].

Lesson Description:

I will begin the lesson by doing a read-aloud to the class. I will read Dinosaur Bob and His Adventures With the Family Lazardo by William Joyce, using the strategies Picture Book (pg 181) and Teacher Read-Aloud (pg 174) (Stephens & Brown, 2000). After the book we will discuss that
this was a fiction book and the events were not real. I will ask students to give evidence onto why the story was not true.

This discussion will springboard the class into the next topic, which is students creating a fake dinosaur. That is each student will invent a dinosaur, give it a name, and write a story about their dinosaur. The story should include how they discovered it, when they discovered it, when the dinosaur lived, what its diet was, where the dinosaur lived, what its habitat was, and other characteristics of the dinosaur. In their story students must include a picture of their invented dinosaur, and a map of the U.S. locating where the dinosaur was found. Students will use their knowledge from the previous lessons to do this activity.