

WolframAlpha Lesson Plan

Teacher:

Lesson title or subject:

Similarities and Differences

Learning Target:

I can pick out attributes to describe similarities and differences between two different animals.

State standards:

WA: 6th Grade

EALR 2. The student understands the meaning of what is read.

Component 2.3. Expand comprehension by analyzing, interpreting, and synthesizing information and ideas in literary and informational text.

GLE 2.3.1. Analyze informational/expository text and literary/narrative text for similarities and differences and cause and effect relationships.

- EOL - Find similarities and differences within and between texts using text-based evidence (e.g., character's point of view in poetry and narrative; the author's feelings and the poet's feelings; cultural perspectives in a magazine article and an editorial).

Component 2.4. Think critically and analyze author's use of language, style, purpose, and perspective in literary and informational text.

GLE 2.4.6. Analyze ideas and concepts in multiple texts.

- EOL - Find the similarities and differences in how an idea or concept is expressed in multiple texts.

Formative Assessment:

Students will write a multiparagraph paper comparing and contrasting 3 different animal attributes.

Key Vocabulary:

attribute
compare
contrast
similarities
differences

Brief Lesson Description:

Access Prior KNowledge: Give students a couple of examples of comparisons. Ask which make sense.

Which of these comparisons makes sense? : Apples are red, bananas are grown in Ecuador. Cats are mammals, owls fly. Cars have 4 wheels, bicycles have 2 wheels.

I Do - Talk about the importance of using one attribute per comparison. Have students share examples of comparisons using one attribute. Have students identify the attribute.

We Do - Go to WolframAlpha and type in Orca vs. Great White Shark. Look at the results. Ask students if they can think of any attributes to compare these two things. Make a list of attributes and then write sentences using the attribute and comparing the two animals.

ex. lifespan, length, Scientific name, class etc.

The Orca can live up to 90 years, while the Great White Shark can live about 50 years.

As you go through this process, you will find that some queries will give you better information than others. So, model, experimenting and your thinking process about why you are tweaking your queries so that students will be able to do the same.

You Do - Students pick two animals that they think are similar. Have students create a query with their two animals. Students pick attributes to use to compare.

(ex. size, location, diet) Then have students pick two animals that they think are very different. Have students create a query with these two animals. Students again pick attributes to use to compare. Students then choose the animals from one of their queries to write a compare and contrast multi paragraph essay. Students will compare and contrast 3 attributes for their animals.

Modifications, (ELL, SPED, HC, etc) .

Instructional Strategies: (Choose one)

cooperative learning

Assessment (feedback):The "you do" piece described above