

Subject/Grade: 8 Comparing human vision with other organisms		Teacher: Josh Wagner
Stage 1: Identify Desired Results		
Outcome(s)/Indicator(s): OP8.3 -- Compare the nature and properties of human vision with optical devices and vision in other living organisms.- Compare human vision with that of other vertebrates and invertebrates, including the function and design of the eye.		
Key Understandings: ('I Can' statements) <ul style="list-style-type: none"> - I can examine what I know about the human eye - I can identify unique functions and design patterns amongst various organisms and what makes them different from the human eye 		Essential Questions: <ul style="list-style-type: none"> - Is all vision the same amongst organisms? - What are some key features that connect design to function?
Prerequisite Learning: <ul style="list-style-type: none"> - Know the components of a human eye (iris, cones, nerves...) - Understand how the human eye works 		
Instructional Strategies: <ul style="list-style-type: none"> - Direct instructions – Showing a Powerpoint that shows a variety of different eyes, explaining how their different eye designs serve their function <ul style="list-style-type: none"> - Visual Hooks - Identifying similarities and differences - Think-pair-share - Graphic organizer – Venn diagram 		
Stage 2: Determine Evidence for Assessing Learning		
<ul style="list-style-type: none"> - Show of hands to demonstrate understanding of a human eye - Students choose an animal and make predictions of how the eye will be similar or different to a human eye - Once powerpoint is done, they'll re-examine their animal and write an explanation on the similarities and differences 		
Stage 3: Build Learning Plan		
Set (Engagement): <ul style="list-style-type: none"> - As the students enter the classroom, I have Private Eyes (Daryl Hall and John Oates) playing in the background - Once the students are in their seats, I'll ask how they're day is going and share some highlights or lowlights. - After 5 or so minutes of sharing, I'd ask students if they can recap what happened last class. I'd fill in missing points from the recaps and ask a show of hands if they understand. - I would then ask what their favorite animal is and have them write it down on a sheet of paper - I would ask the students to predict and explain why or why not their animal eye functions like a human eye 		Materials/Resources: <ul style="list-style-type: none"> - Comparing Eyes presentation - Pens/pencils, paper - Computer (audio)
Development: <ul style="list-style-type: none"> - I would pull up the comparative eye presentation - Bring up an animal eye diagram and discuss as a class if and where there are similarities and differences - After discussing 4 different animal eyes, I would ask students to pair up 		Possible Adaptations/ Differentiation: <ul style="list-style-type: none"> - Could use a program like Socrative to allow all student participation when discussing differences and similarities - During the Venn diagram, offer alternative animals if students are struggling
Time:		Management Strategies: (classroom management – how to draw everyone back together) <ul style="list-style-type: none"> - Set expectations for the class <ul style="list-style-type: none"> - If someone is talking, don't interrupt

<ul style="list-style-type: none"> - Once students are paired up, I would display 3 different animal eyes and ask them to create a Venn diagram, giving them 15 min to complete as much as they can <p>Learning Closure:</p> <ul style="list-style-type: none"> - When the 15min are up, I would ask students to share and explain some of the similarities or differences they came up - If there is time, I would show a video demonstrating some other eyesights that were not covered - At the end of class, I would ask them to hand in their Venn diagrams <p>Time:</p>	<ul style="list-style-type: none"> - If you have a question, raise your hand - Engage with students during the Venn diagram portion, help/guide as needed - Ask them politely to settle down when coming back as a group (beginning of the class or the end of the Venn diagram portion) <p>Safety Considerations: (ex. physical safety, but also emotional safety)</p> <ul style="list-style-type: none"> - Ensure table seating is spaced out accordingly, no rushing in the classroom
Stage 4: Reflection	

Backwards by Design Lesson Plan Template

Professional Goals Plan

Topic: Grade 8 Science

Date: Sept 29th

Teacher: Joshua Wagner

Observer: Mr. Graff

<p>1. Professional Goal</p> <ul style="list-style-type: none"> - Explanation of subject material is clear and concise 	<p>2. Steps to Achieve Goal</p> <ul style="list-style-type: none"> - Review powerpoint and what major details to go over - Do a quick run through the night before - During lesson, take time to explain, no rushing
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3. Instructions to observer (be specific):

- Make note of when I get too wordy during an explanation
- Count the amount of times I have to re-explain a concept to the whole class

4. Data Collection: