**Surprising Sharks**

**→ Shark Senses ←**

**Topic**

* **Teacher’s Name:** Morgan McDaniel, Kylie Williams, Maya Kenner, Rachel Protzko
* **Subject Area:** Biology, Reading, Technology Integration

**Class Information**

* **Grade Level:** 2nd
* **Date:** January 23, 2017
* **Class Demographics/Description:**
  + **Age:**6 & 7 year olds (some may be turning 8)
    - Age Level Characteristics → Responsive to group activities
      * Small group and whole group opportunities throughout the lesson
  + **Race/Ethnicity:** Caucasian (85%), African American (5%), Asian (10%)
  + **Needs/Accommodations:**

|  |  |
| --- | --- |
| **Specific Individual or Small Group Needs**  (IEP Accommodations, ESOL, Social Concerns, Etc.) | **Differentiated Practices for this Lesson** |
| * **FK** has an IEP, but it is mostly behavioral. * **CO** and **VY** have behavioral charts. * **CW** was brought to STT (student support team), but it was agreed to closely monitor her progress. * **LW** has a mild hearing loss that affects her learning. | **FK**   * He needs reduced distractions, and repeated directions * Use a cardboard divider for reduced distractions * Ask him to repeat and clarify directions * Check on him periodically to make sure he is completing his work * Still does the same amount of work as all of the other students   **CO & VY**   * Take their behavior into account for things such as: partner choice, seating, on task behavior, etc.   **CW**   * Will need to keep her on task and engaged (she doesn't ask for help, if needed), but no specific accommodations.   **LW**   * She has a mild hearing loss, so make sure you are wearing the FM system during the lesson so the sound goes directly to her ear. * Make eye contact when talking to her. * If there is group work, be sure to give her group members the FM system. * If the students are using sound on the computer or TV, sync the FM system with the other devices to ensure that the student can hear. |

**Alignment**

Brief overview of the Lesson:

* In this lesson, the students will be referring to a book, “Surprising Sharks” that they have previously read in class. They will be focusing on Shark’s Senses. To introduce this topic, they will start by watching a video called,  [Sharks Sense of Smell](https://youtu.be/Fo0_YOWlp0c). The children will be placed in groups and each group will be assigned a different shark sense to research. The students will use [Sharkopedia](http://sharkopedia.discovery.com/shark-topics/shark-senses/#a-sharks-senses-are-hardwired-to-hunt) on the computers to research their sense. With this information, each group will make a PowerPoint presentation to present to the rest of the class about their particular shark sense. Lastly, the students will complete a Kahoot as an assessment of their understanding. This lesson aligns with the curriculum because the students are learning in depth about an animal, more specifically about their senses. This requires the students to read informational text. The topic is something that we can relate to since we, as humans, also have senses. This lesson is also supporting young students with technology. In this lesson, students have to research, which is a skill in itself and the students have to make a PowerPoint that they have to present to the class.

**Standards**

* **Common Core:** 
  + Range of Reading and Level of Text Complexity: [CCSS.ELA-LITERACY.RI.2.10:](http://www.corestandards.org/ELA-Literacy/RI/2/10/) By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
* **ISTE-NETS-S:**
  + 2. Design and develop digital age learning experiences and assessments: Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the Standards.
    - a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
* **InTASC:** 
  + Standard #3: The teacher works with others to create environments that support individual and collaborative learning, and encourage positive social interaction, active engagement in learning, and self motivation.

**Part Two**

**Learning Objectives**

1. Students will be able to create a slide show containing three or more interesting facts about their topic.
2. Students will be able to operate Microsoft PowerPoint in order to create a presentation slide show.
3. Students will be able to recall facts from their online research in order to inform their peers about their given topic.
4. Students will be able to use the Internet to research their assigned topic and discover new information about sharks.

**What students will learn/do a result of the lesson:**

Students will become comfortable and familiar with how to research a topic. Not only will they understand the senses that sharks have, but they will also understand how to find wanted information on the Internet and how to create a PowerPoint presentation. It supports them socially because they have to work together and present their information in front of the class. Overall, students will learn why and how technology is used; improve their comfort level with technology; and increase their knowledge of sharks.

**Teaching Materials**

* Computers
* Projector
* Sharks Sense of Smell Video- (https://youtu.be/Fo0\_YOWlp0c)
* iPads with QR Code App
* Sharkopedia-(http://sharkopedia.discovery.com/shark-topics/shark-senses/#a-sharks-senses-are-hardwired-to-hunt)
* Microsoft PowerPoint
* Kahoot Assessment
* Shark Sense Fact Sheet

**Technologies that will be used:**

* Internet → using the website, *Sharkopedia,* to research their assigned topic
* Microsoft PowerPoint → to create a presentation
* Kahoot → to assess/evaluate their understanding
* iPads → to scan the QR code and get to the website
* YouTube → to watch a short video, *Sharks Sense of Smell*

**Assistive technologies**

* FM system for student (LW) with hearing loss- FM brings the sounds right to her ear.
* “Personal office” (this is a partition that students are able to put on their desks in order to keep out distractions). These will be used by **FK, CO, and VY**.

**Part Three**

***Planned Beginning:***

***Anticipatory Set***

* Share with students that they will be watching a short video about sharks.
  + Play the video, *Sharks' Sense of Smell*

→ <https://youtu.be/Fo0_YOWlp0c>

***Transition***

* Call students by tables to come to the carpet.

***Review from the day prior***

* Remind students of the book, *Surprising Sharks* that was read to them the day before.
  + “Yesterday, we read a book called *Surprising Sharks* that taught us about different sharks around the world. One of the topics that was briefly discussed in the book were the different parts of a shark and what their functions were. Today, after watching the short video, we learned a little bit more about the different senses that sharks have and just how strong they are.”

***Facilitate turn and talk*** → *give students about 2 min.*

* “I want everyone to turn and talk to a neighbor about some of the different senses that sharks have that we have briefly learned about from both the book *Surprising Sharks*, and the video we just watched.”

*→ During this time the teacher will walk around the carpet and check-in on student’s conversations. Ask questions to provoke deeper thinking and keep students on task.*

***Bring students attention back to whole group***

* “Now that everyone has gotten a chance to talk with a neighbor, I want someone to raise his/her hand and tell me what senses you and your partner talked about.”

***Development of the New Learning:***

*→ The teacher will display the objective for the day on the projection board.*

***Dissect the objectives/tell the students what their “job” is***

* “Our objectives today are….”
  + Students will be able to:
    - use the internet in order to research their assigned topic and discover new information.
    - operate Microsoft PowerPoint in order to create a presentation slideshow.
    - create a slideshow containing three or more interesting facts about their topic.
    - recall facts from their online research in order to inform their peers about their given topic.
* Tell students that they will be looking at the different senses that sharks use and making their own PowerPoint/slideshow in groups.

***Assign Groups***

*→ The teacher will have pre-selected groups placing each student in a group that is most beneficial to their learning needs.*

* Assign students into 5 different groups.
  + Assign each group with a sense:
    - Hearing
    - Sight
    - Smell
    - Touch/Skin
    - Electroreception

***Explain Activity***

* Tell the students that they will be going to the computer lab to research/learn more about the sense that they have been assigned.
* Explain that, in groups, they will visit the website provided (Sharkopedia), to find information on their specific sense.
* Show the students the Shark Sense Fact Sheet and explain to them that they will be writing down the facts that they find on this worksheet and turning it in as part of their grade.
* Using the information they find, they will create a PowerPoint slide that has 3 or more interesting facts about their topic that they will present to their classmates to teach them some facts about the different senses.
* Before going any farther, remind the students how to make a PowerPoint. Recall the PowerPoint they made about persuasion to build on their background knowledge.
* Next show them the rubric and go over each section to let them know how they will be graded.
* Hand out one Shark Sense Fact Sheet to each student.

***Transition***

* Call students to line up at the door using their shark sense group and select one students from each group to bring an iPad.
  + For example: “The hearing group may stand up and walk quietly to line up at the door.”
* Walk students to computer lab.

***Computer Lab***

* Once the class has reached the computer lab, have the students sit with their groups at a table. (Each group will be at separate tables to do their research and look at the website.)
* Pull up PowerPoint to show the students how to get on the computer and start their presentation. Allow students to log onto PowerPoint with you, so they can follow along. Make sure to go over the features they will need- text box, backgrounds, new slide, insert pictures, etc. Show them an example PowerPoint (the persuasive PowerPoint they made before).
* Hand out one rubric to each group for them to reference.
* Provide the students with the website to go to
  + Instruct students to open a PowerPoint that is made for this lesson.
  + Tell students to use their iPads to scan the QR code on the first slide to open the website that they will be using.
  + For students listed in the accommodations section, give them a sticky note that has the website on it so that they can have it with them at their computers.
  + The website is: *Sharkopedia*



* Tell the students that they will have 45 minutes to read about their topic, watch the short video, and create a PowerPoint slide with their group members:
  + We will set a timer for 20 minutes so the students can research with their groups.
  + After this, the students will consult with their groups for about 5 minutes to share the research they found. If there are any differences, then they will decide on 3 facts to use on their slide.
  + After this, the students will be given an example template of how the slide could be set up (gives ideas for students). They will have 20 minutes to work on their slide.
  + After these 20 minutes, the students will be asked, by a show of hands, who is finished and/or who needs more time. We will allow 5-10 more minutes of work as needed. Those groups that are finished should revise their work. If they are finished revising, books will be provided for the students to look over: they will be based on sharks (the students can read them leisurely or search for more information).
* Once the students have finished their PowerPoints, show them how to save their work to the class folder.

***Transition***

* Call students to line up at the door using their shark sense group.
  + For example: “The hearing group may stand up and walk quietly to line up at the door.”
* Walk students back to the classroom.

***Classroom***

* Once the class is back at the classroom, have the students sit with their presentation groups at the tables in the classroom.
* Tell the students that they will now take turns presenting their topics to the class.

→ *The teacher will open up the class folder and set up the projector for the student’s presentations.*

* Have groups come to the front of the room one at a time and present their PowerPoint to their peers.

**Part Four**

**Assessment Plans**

**Formative:**

* Teacher will walk around the classroom while students are turning and talking to their neighbor about what they know so far about shark senses. This will act as a pre assessment.
* Teacher will walk around the computer lab while students are researching and making their PowerPoints to see how students are working together and if the students are understanding the content.

**Summative:**

* The students will be completing a written assessment (individual):
  + Write down two facts you learned from the PowerPoints
  + What are the FIVE senses that we learned about today?
  + Explain each sense.
* Once the students are finished, the assessment will be collected and graded.

**Part Five**

**UDL Implementation**

* Multiple Means of Representation:
* Students received information about sharks through 3 different mediums
  + Book
  + Video
  + Online research
* Multiple Means of Engagement:
* Students were able to work in groups which fosters collaboration. They were also given freedom of choice regarding which interesting facts they wanted to share with the class.
* The use of the video and PowerPoint are considered engaging.
* Multiple Means of Action and Expression:
* Students were able to compile their knowledge in a PowerPoint then share it in the form of a presentation

**Part Six: Closure**

***Planned Ending:***

**Transition**

* Once all groups have presented, call students to the carpet by their presentation groups.

**Elaboration**

* As a class, create an anchor chart that gives a few facts about each sense that they learned about today.
* Briefly go over/review each sense to give students any information that they may have missed from the group presentations.
  + Sharks have amazing senses that help them to catch their prey. Sharks have ear holes, eyes, nostrils, sensitive skin, and a mouth for tasting. Sharks have great eyesight that allows them to see up to 100 feet underwater. They also have great hearing. Hearing is actually their strongest sense! Some sharks can hear noises from over 2 football fields away! Sharks are also very well known for their sense of smell. They are able to smell even the smallest amounts of blood from about a half of a mile away. Sharks have sensitive skin that is similar to human fingertips. It is similar in that it can tell hot from cold, rough from smooth, and moving from still. (Surprising Sharks, pg. 20) Sharks have a special 6th sense called electroreception. This allows them to sense electrical impulses through pores on their heads and snouts. Shark's senses are much greater than those of humans.

***Resources:***

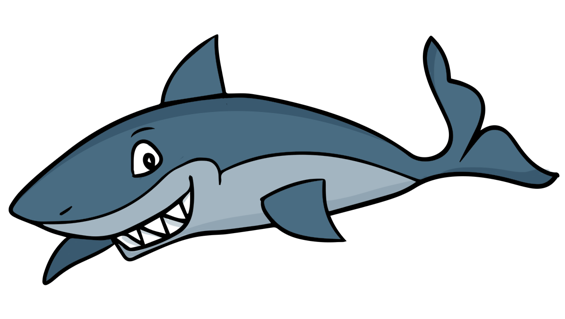
*·Shark information from:*

*o Davies, Nicola. Surprising Sharks. Cambridge, MA: Candlewick, 2003. Print.*

*o "Shark Senses: Hardwired to Hunt." Shark Senses | Sharkopedia. Discovery Communications, n.d. Web. 15 Dec. 2016.*

*Video from:*

[*http://kids.nationalgeographic.com/explore/youtube-playlist-pages/youtube-playlist-sharks/*](http://kids.nationalgeographic.com/explore/youtube-playlist-pages/youtube-playlist-sharks/)

Shark Sense Facts

Directions: On the lines provided below, write down interesting facts you find about your topic.

Fact #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Fact #3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rubric

Students will be graded on a scale of 0 - 2.

0 = did not meet expectation/needs improvement,

1 = meets expectation, 2 = exceeds expectation

|  |  |
| --- | --- |
| Students have 3 (or more) interesting facts present in their presentation. | 0 1 2 |
| Students worked together as a team to create a PowerPoint presentation. | 0 1 2 |
| Students’ presentation has a title. | 0 1 2 |
| Students were on task and used their time wisely at the computer lab. | 0 1 2 |
| Students included pictures in their PowerPoint presentation. | 0 1 2 |