LESSON 1: SCIENTIST SHARK DIVE!

Shark Unit. Lesson 1: Grades 6-8

ESSENTIAL QUESTION OF THE DAY (EQOD):

What type of scientists study sharks, and what do they already know about them?



materials:

- Shark species ID handouts (1 copy of each; 11 total)
- Shark Dive Data Sheet (1 per student) *or* students can copy the format into their science journals <u>Shark Dive Data Sheet</u>
- Video # 1 https://youtu.be/wUb3YCPm4bY
- Video # 2 https://youtu.be/xIxR1xz9n2A
- Poster Paper
- Printer Paper
- Colored Pencils

SCIENTIFIC ROLES:

- Ecologist --Diet & Conservation
- Zoologist --Behavior & Husbandry

- Oceanographer --Distribution & Geography
- Ichthyologist --Appearance & Jaw Characteristics



procedure:

ENGAGE

- 1. Show the class video # 1.
- 2. After watching, ask students, "Why do you think a fear of sharks exists?" (3 min.)
 - \rightarrow Each group will copy down as many responses as they can in the 3 minute span.
- 3. Groups will take turns presenting their reasoning.
 - → Copy responses onto board
- 4. After each group has had the chance to share their findings. Show the class video # 2.
- 5. After watching, ask students, "Has your opinion on sharks changed after watching the second video?"
 - → Think, Pair, Share within their groups (3 min.)
 - 6. During the Think, Pair, Share (or your choice of discussion techniques), organize the students as such:
 - 1.) Number of students 1-4, to determine their scientific roles. Each student will be assigned one role.
 - 1 Ecologist
 - 2 Zoologist
 - 3 Oceanographer
 - 4 Ichthyologist



Hand out:

1 'Shark Dive Data Sheet' Handout per group (or 1 per student)

EXPLORE

1. Set up 4 identical stations within each half of the classroom. 'Shark Species ID Sheets' can be distributed/placed as follows:

(Placing these ID Sheets prior to class may save a headache of distribution during activities)

- Station 1: Gray Reef Shark, Blacktip Shark, Spinner Shark
- Station 2: Spottail Shark, Hardnose Shark, Silky Shark
- Station 3: Pigeye Shark, Dusky Shark, Scalloped Hammerhead Shark
- Station 4: Sandbar Shark, Smooth Hammerhead Shark
- 2. Allow scientists time at each station to complete all 11 of their shark species data sheets.

Upon completion, have students return to their desks

EXPLAIN

- Ask students to group up according to Scientific Roles.
 (e.g. zoologists meet as a group, ichthyologists meet as a group, etc.)
- 2. Give the groups 10-15 minutes to discuss their findings/fill in any missing information with their colleagues.
- 3. Students with different roles form groups to collaborate.
 - Ask students to get together in mixed groups, so that each group has all 4 scientific roles represented.
- 4. Provide each group poster paper as a means to display their findings.
- 5. Hang completed graphics around the classroom so that they are representative of an art gallery!

These graphics should remain on the walls throughout the shark unit, for student reference.



ELABORATE & EVALUATE

As an assessment piece, have each student choose his/her favorite shark species from the 'Shark Dive' lesson and complete a 1-Pager showing what they have learned.

1-Pager Requirements:

- 1. A clear & obvious title (with common & scientific name!)
- 2. A border that shows each scientist & their roles.
- 3. 2 visual images that relate to your shark species (drawing, magazine cut-out, etc.)
- **4.** Ask two Costa's Level 2 or 3 questions about your shark **and answer** them.
- 5. Ask a question about your shark that **you do not know the answer to**. Write the type of scientist that would be responsible for answering that question.
- 6. Write 5 notable vocabulary words or phrases around the images.
- 7. Fill the entire page!
- 8. Use Color!
- 9. WRITE YOUR NAME!

