**Directions:**

* Grab 4 sheets of blank printer paper. Line them all up into an even stash and fold in half hamburger format. Using one staple, staple the fold as close to the edge as possible in the center of the fold. This will hold the book together.
* Orient the book so that the book is upright versus horizontal.
* Number each page at the bottom right, the first page starting on the front and the last page should end at 12.
* Once complete, include the details below on each page of the book.

Pg. 1 – Title the Page “Fish Book”

* Add your name (first and last) and period
* Copy and fill in the table below:

|  |  |  |
| --- | --- | --- |
| Fish Types | Class | 2 Fish Examples |
| Jawless Fish |  |  |
| Cartilage Fish |  |  |
| Bony Fish |  |  |

Pg. 2 – Title the page “Body Shapes”

* Copy and fill in the table below. First look at figure 7.9 on pg. 146 in marine biology text. All the nine shapes are provided in the figure. You will need to read the caption to get the name of the body shape. I do not want to the organism listed here. For example, the Bluefin tuna labeled letter “a” has a streamlined shape. You may need to also read the section titled “Body Shape” on pg. 145 -146 to explain the reason/purpose of the body shape. For instance, streamlined body shape helps fish move/swim faster in water. I gave you the first answer below in red text.

|  |  |
| --- | --- |
| Body Shape | Body Shape Reason/Purpose |
| 1) Streamlined | Move/swim faster in water |
| 2) |  |
| 3) |  |
| 4) |  |
| 5) |  |
| 6) |  |
| 7) |  |
| 8) |  |
| 9) |  |

Pg. 3 – Title the page “Locomotion”

* Read the locomotion section on pg. 147 – 148 and answer the questions below:
  + Explain the purpose (why fish swim), describe the way they swim (movement), and explain purpose of myomeres.
  + Be sure to explain the purpose of anal fins and pelvic fins.
  + Draw Figure 7.11. DO NOT DRAW FIGURE 7.12. Include the arrows, but not the caption, to show how different types of fish move.

Pg. 4 – Title the page “Cartilage Fish Feeding”

* Describe basic feeding patterns of cartilage fish.
* Also give examples of how different species of sharks feed.

Pg. 5: Title the Page “Bony Fish Feeding”

* Describe basic feeding patterns of bony fish.
* Also give examples of how different species of bony fish feed.

Pg. 6: Title the page “Bony Fish Mouth Parts”

* Draw Figure 7.13, not including the caption. Include a brief description of the purpose of each mouth adaptation.

Pg. 7 – Title the page “Respiratory System”

* Give a detailed description on how a fish breathes; include explanations for spiracles, gill arches, gill filaments, gas exchange, hemoglobin, and myogolbing.

Pg. 8 – Title the page “Respiratory System Continued”

* Draw figure 7.16. Summarize the description of “a” and “b” in the caption.

Pg. 9 – Title the page “Coloration”

* Read the section titled Coloration in marine biology text on pg. 146 -147 and add the information below:
  + List and define chromatophores, structural colors, iridophores, warning colors, cryptic coloration, disruptive coloration, and countershading.
  + Also include an example of a fish for each coloration you defined above.

Pg. 10 – Title the page “Behavior”

* Explain the 3 types of behavior and the reason for that behavior. Go to pg. 156-158.
  + Territoriality
  + Schooling
  + Migrations

Pg. 11 – Fish Threats

* Research threats against jawless, bony, and cartilage fish. Describe solutions.

Pg. 12 – Optional (Extra Credit)

* Research an interesting fact about fish. Perhaps the way they reproduce. You must be thorough in your descriptions. Pictures are always helpful too.