

Name \_\_\_\_\_

## Hungry Humboldt Penguins!

Humboldt penguins typically eat 10-14% of their body weight in fish each day. Using their given weights, what is the minimum and maximum weight of the fish each penguin should consume daily?

Example: weight of penguin X % consumption = weight of fish penguin eats daily

Araya: 7.06 lbs. X .10 = see answer below

Penguin Name	Average Weight (lbs.)	10% consumption (lbs.)	14% consumption (lbs.)
Araya	7.06 lbs.	.706 lbs.	
Blanca	12.54 lbs.		
Burgess	9.10 lbs.		
Desi	13.42 lbs.		
DJ	7.65 lbs.		
Ignacio	9.24 lbs.		
Lou	11.20 lbs.		
Mario	13.64 lbs.		
Montana	10.78 lbs.		
Opus	6.84 lbs.		
PJ Jr.	12.76 lbs.		
Tux	10.41 lbs.		
Nino	10.12 lbs.		

Using this information, what is the minimum and maximum amount of total diet that should be prepared each day for the whole colony?

Total Daily Diet for Colony	Minimum (10%)	Maximum (14%)
LBS.		

Name \_\_\_\_\_

## Hungry Humboldt Penguins!

Our Humboldt penguins are fed a variety of three types of fish: herring, capelin, and smelt. Using the information below, create a “menu” for one of the penguins. Be sure to provide a variety of each type of fish for a balanced diet.

\*HINT: they typically eat more in the afternoon!

FIGURE A	Herring	Capelin	Lake Smelt
Weight (lbs.)	0.13	0.02	0.05
Calories Per pound	751	463	410

Example: “Petey” the Humboldt penguin weighs 9.8 lbs. His daily consumption is a minimum of 0.98 lbs. (10%), and his maximum consumption is 1.37 lbs. (14%). His diet might include:

“Petey” Diet	Herring (H)	Capelin (C)	Smelt (S)	Total
AM bucket	2 Herring- 0.26 lbs.	3 Capelin- 0.06 lbs.	4 Smelt- 0.20 lbs.	0.52 lbs (AM)
PM bucket	3 Herring- 0.39 lbs.	8 Capelin- 0.16 lbs.	6 Smelt- 0.30 lbs.	0.85 lbs. (PM)
<b>Total</b>	0.65 lbs. (5 H)	0.22 lbs. (11 C)	0.50 lbs. (10 S)	<b>1.37 lbs.</b>

^Total Daily

Choose a penguin from page 1 and fill out a “menu” using the chart below. Make sure their daily total falls within their minimum and maximum daily consumption.

	Herring	Capelin	Smelt	Total
AM bucket				
PM bucket				
<b>Total</b>				

^Total Daily

Name \_\_\_\_\_

## Hungry Humboldt Penguins!

All that fish provides the penguins with a lot of calories! Using the tables below, calculate how many calories your chosen penguin would receive in one day.

Example: "Petey" the Humboldt penguin receives 0.65 lbs. of herring, 0.22 lbs. of capelin, and 0.50 lbs. of lake smelt. The amount of calories "Petey" will consume is:

"Petey" calories	Herring	Capelin	Smelt
<b>Weight (lbs.)</b>	0.13 (1H)	0.02 (1C)	0.05 (S)
<b>Calories Per pound</b>	751	463	410
<b>Total Pounds Consumed Daily</b>	0.65 (5H)	0.22 (11C)	0.50 (10S)
<b>Total Calories Consumed Daily</b>	488.15	101.86	205.00

Adding up the calories for all the fish, "Petey" will receive a total of 795.01 calories with this diet of fish.

How many calories will the penguin you created the menu for have in their diet?

	Herring	Capelin	Smelt
<b>Weight (lbs.)</b>	0.13 (1H)	0.02 (1C)	0.05 (S)
<b>Calories Per pound</b>	751	463	410
<b>Total Pounds Consumed Daily</b>			
<b>Total Calories Consumed Daily</b>			

Total number of calories your penguin would eat in this diet: \_\_\_\_\_