



Animal Husbandry

9-12 Classroom Activity

Matchmaker

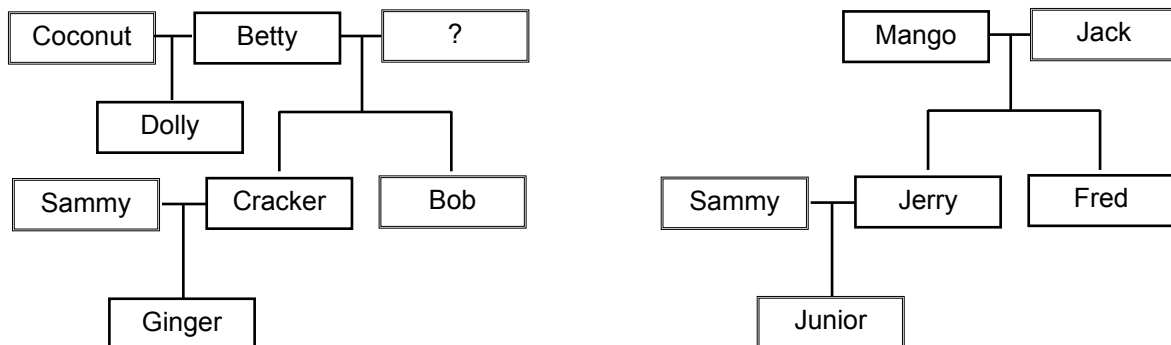
OBJECTIVE

The student will diagram the breeding history of a sample zoological bottlenose dolphin population and apply this information to make husbandry decisions.

ACTION

1. As a class, discuss the importance of keeping animal breeding histories. What types of data might be recorded? (Data could include age of the animal, its location, and the names of the animal's mother and father.) How do zoological staff use this information? What problems might arise if this information was not available?
2. Distribute copies of the Matchmaker funsheet on the next page. Read the introduction to Scenario 1 as a class. Discuss the format of the breeding diagram. This diagram is essentially the same as a family tree.
3. Students complete Scenarios 1 and 2.
4. As a class discuss students' answers. In Scenario 2, was there only one breeding option, or more than one? Was one option a better choice?

ANSWERS



2. It's best to breed Ginger with either Jack or Coconut.

BACKGROUND INFORMATION

To conduct successful animal breeding programs, zoological staff create "studbooks," comprehensive records of animal births, deaths, and interinstitutional transfers. Studbooks record mating histories and provide data for captive breeding management including which animals are related so they will not be bred. Inbreeding damages genetic strength. Studbook data also may be used to analyze the demographics (statistical characteristics) of zoological populations including the size and density of current zoological populations, which animals reside at what locations, and specific breeding ages. Bottlenose dolphin females become sexually mature between 5 and 12 years; males at 10 to 12 years.

MATERIALS

For each individual student or student group:

- Matchmaker funsheet next page
- pencils



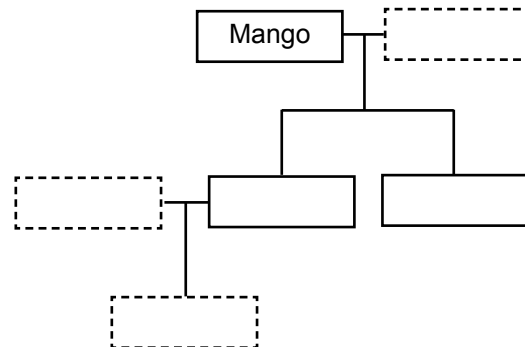
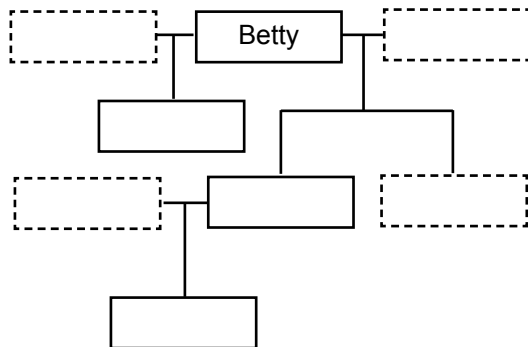
The black rhinoceros is one of 18 endangered species that SeaWorld and Busch Gardens helps breed.

Name: _____

You are the director of XYZ Zoo. During the past 20 years, your zoological staff has recorded the following bottlenose dolphin (*Tursiops truncatus*) breeding histories. Now you would like to diagram this information.

Using the chart below, fill in the boxes on the breeding history diagram. Use singlelined boxes for females, and dotted-lined boxes for males. The two oldest females are placed in the top single-line boxes. Use the "parents" column to complete the diagram. Bottlenose dolphin females begin breeding between 5 and 12 years; males at 10 to 12 years. (NOTE: You may not be able to fill in all of the boxes. Breeding histories sometimes are incomplete.)

name	studbook#	gender	age	mother/father	location
Dolly	12	F	3	4/32	Dolly's World
Fred	38	F	5	6/5	XYZ Zoo
Cracker	22	F	16	4/?	YXZ Zoo
Coconut	32	M	15	unknown	Ocean Land
Mango	6	F	25	unkown	XYZ Zoo
Bob	35	M	6	4/?	Ocean Land
Betty	4	F	27	unkown	XYZ Zoo
Jerry	26	F	17	6/5	XYZ Zoo
Jack	5	M	28	unkown	XYZ Zoo
Ginger	30	F	8	22/28	XYZ Zoo
Sammy	28	M	12	unkown	Wetworld Park
Junior	39	M	3	26/28	XYZ Zoo



Scenario 2

You and your zoological staff want to breed Ginger. Which male(s) will you choose?