

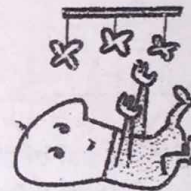
Who's Your Daddy

Name Anne Surkey

Date _____

There has been an earthquake at a local bay area hospital. Nurse Ratchet, only on her second day on the job, was assigned to care for the babies in the nursery. In her haste to evacuate the hospital, Nurse Ratchet neglected to put identification bracelets on the newborn babies.

Your job is to utilize your knowledge of genetics and heredity in order to deliver the babies to their correct parents. To solve the mystery, you must analyze various genetic traits in order to match the babies to their parents. You will need a solid understanding of Punnett squares, blood types, dominant, recessive, and codominant genes in order to solve the case.



Baby Genotypes:

Baby # 1	Baby # 2	Baby # 3
O	AB	A

The first set of parents are the Leel's. Mr. Al Leel's blood type is AB. Mrs. Allie Leel's blood type is AB. Use the Punnett square below to determine the possible genotypes of the babies born to the Leel's.

	A	B
A	AA	AB
B	AB	BB

Compare the 4 possible genotypes with the genotypes of the 3 evacuated babies. Which baby or babies could possibly belong to the Leel's?

Baby 2 and Baby 3
 Why? baby 2 has AB blood + baby 3 has A blood
which parents can give to baby.

Activity adapted from: <http://www.cccoe.net/genetics/daddyhome.html>

(Attachment 2)

The second set of parents are the Haye's. Mr. Aaron Haye's blood type is O. Mrs. Dina Haye's blood type is AB. Use the Punnett square below to determine the possible genotypes of the babies born to the Haye's.

	O	O
A	AO	AO
B	BO	BO

Compare the 4 possible genotypes with the genotypes of the 3 evacuated babies. Which baby or babies could possibly belong to the Haye's?

baby 3

Why? baby 3 has A blood. Of babies mixed up, baby 3 only baby that these parents could have.

The third set of parents are the Poole's. Mr. Gene Poole's blood type is B. Mrs. Fallen Poole's blood type is O. Use both of the Punnett squares below to determine the possible genotypes of the babies born to the Poole's.

	B	B		B	O
O	BO	BO	or	BO	OO
O	BO	BO		BO	OO

Compare the 4 possible genotypes with the genotypes of the 3 evacuated babies. Which baby or babies could possibly belong to the Poole's?

baby 1

Why? baby 1 has O blood; only parents where both have recessive allele

Based on all the information you have gathered, indicate which babies belong to each set of parents?

Parents	Baby #
Leel's	2
Haye's	3
Poole's	1