| NAMES; | <u> </u> | - |
|---------|----------|---------------|
| DATE: | | |
| PERIOD: | | |

BEAKER BABIES

Procedure:

- 1. Get together with your "spouse" at your lab station.
- 2. Using masking tape and a felt pen, mark the three beakers at your lab station as male, female, and offspring.
- 3. Determine your personal genotype and phenotype by following your teacher's instructions and this list:
- A. Sex / XX=female XY=male
- B. Hair Color / BB=black Bb=brown or red bb=blonde
- C. Eye Color / EE=brownish Ee=greenish ee=bluish
- D. Height / TT=tall Tt=medium tt=short
- E. Size of Feet / FF=big Ff=medium ff=small
- F. Tongue Roll / RR or Rr=tongue roller rr=non roller
- G. Color Blindness / CC or Cc=color-sighted cc=color-blind
- H. Bone Structure / SS=large Ss=medium ss=small
- I. Blood Type / AA AB BB OO
- J. Widow's Peak / WW or Ww=widow's peak ww=no widow's peak
- 4. Write your genotype and phenotype information in the attached data table and also on your chromosome models. Be careful to label your gametes A-J and place them in proper order according to the above list.

- 5. Cut your chromosomes along the lines and place all the "genes" for male and female into the marked beakers.
- 6. Randomly draw out genes from the beakers so that you create a complete chromosome for each parent. Use only the first of each gene drawn to form your gamete. Place this information in the data table under gamete.
- 7. Now, crossing the two gamete chromosomes of the parents list the information for genotype and phenotype of the F1 generation. List this information in the top (your kid) F1 section of the data table.
- 8. Using the same procedure as before, determine the gamete chromosome for your F1 generation and list this in the data table.
- 9. Find another pair of parents and fill in their F1 information in the bottom (their kid) F1 section of the data table.
- 10. The two F1 generation offspring are now going to have offspring of their own. Randomly cross the gametes from these F1 generations to determine the genotype and phenotype for the F2 generation --YOUR GRANDCHILDREN!!
- 11. Draw a picture of the lil' nipper with the appropriate characteristics and then make out your birth announcement and share with all your friends and loved ones...

Beaker Babies Data Tables

| Female, P1 | | | | |
|--------------------|---|--|--|--|
| Characteristic | Genotype | Phenotype | Gamete | |
| a. sex | | | | |
| b, hair color | | , | | |
| c. eye color | | | COMMONSTRUCTURE TO STATE OF THE PROPERTY OF TH | |
| d. height | | | | |
| e. size of feet | · | | The state of the s | |
| f. tongue roller | | The state of the s | AND DESIGNATION OF THE PROPERTY OF THE PROPERT | |
| g. color blindness | TANK TANK TANK TANK TANK TANK TANK TANK | | | |

| h. bone structure | - <u>(</u> | The state of the s | Sensor and a sensor a sensor and a sensor a sensor and a sensor a sensor and a sensor a sensor and a sensor and a sensor a sensor a sensor and a sensor a sensor and a sensor and a sensor a sensor a sensor and a se |
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| i. blood type | | The state of the s | |
| j. widow's peak | the manner of the second | | indials and it is a second the interest of the second seco |
| The state of the s | TATA | _ D1 | *************************************** |
| Characteristic | | e, P1 | ~ |
| a. sex | Genotype | Phenotype | Gamete |
| b. hair color | THE RESERVE THE PROPERTY OF TH | | saat saana sa maan sa saasasana ta'a ka ay asaan |
| c. eye color | | | u uranamiyata vara yeranin siyeti orana |
| d. height | almost var englishbarran a englishbarran a englishbarran a englishbarran a englishbarran a englishbarran a eng | | |
| e. size of feet | and depresentations and the second | | |
| f. tongue roller | ************************************** | | |
| g. color blindness | | | COLUMN AND THE RESIDENCE OF THE PROPERTY OF TH |
| h. bone structure | | | |
| i. blood type | | | |
| j. widow's peak | | | |
| g. widow's peak | | | |
| | F1 Generation | on, Your Kid | |
| Characteristic | Genotype | Phenotype | Gamete |
| a. sex | | | A STATE OF THE PARTY OF THE PAR |
| b. hair color | | | |
| c. eye color | | | |
| d. height | | | |
| e. size of feet | | | |
| f. tongue roller | | | and the second s |
| g. color blindness | Constitution of the second | | · · |
| h. bone structure | | | |
| i. blood type | | | THE PROPERTY OF THE PROPERTY O |
| j. widow's peak | | | (|
| · | F1 Generation | n, Their Kid | |
| Characteristic | Genotype | Phenotype | Gamete |
| a. sex | | | |
| b. hair color | The state of the s | | <u> Taranggan an an manggan an a</u> |
| c. eye color | | | |
| d. height | | | |
| e. size of feet | | <u> </u> | |
| f. tongue roller | <u> </u> | | aliegis and the depth of the large of the la |
| g. color blindness | | | and the second s |
| h. bone structure | The state of the s | The second secon | And the state of t |
| i. blood type | and the second s | | |
| . widow's peak | | | and the state of t |

| F2 Generation, The Grandkid | | | |
|-----------------------------|--|--|--|
| Characteristic | Genotype | Phenotype | Gamete |
| a. sex | | | |
| b. hair color | to a material with a particular and the second of the first | | With the state of |
| c. eye color | AMINISTER OF THE STATE OF THE S | | |
| d. height | | | |
| e. size of feet | | | A THE STATE OF THE |
| f. tongue roller | - 2016 | | |
| g. color blindness | | | A Committee of the Comm |
| h hone etmeture | | | Control of the Contro |
| i. blood type | | | • |
| j. widow's peak | | The second secon | |

Birth Notice

(circle or fill in the appropriate information for either F1 or F2 child)

| This is to announce the bir | th of | a delightful little |
|--------------------------------|-------------------------------|-----------------------------|
| boy/girl. The proud parent | s are and | |
| The baby has 1 | nair and will grow to be quit | te short/average/tall. |
| Naturally, he/she can/cann | ot roll his/her tongue. This | brown/green/blue eyed, |
| color blind/color-sighted b | aby with his/her type | blood will be a |
| welcome addition to the fa | mily. With/without his/her | widow's peak, |
| fine/medium/heavy bone s | tructure and dainty/clodhor | per feet, there is no doubt |
| that this cute, dimpled little | e bundle o'joy is bound for | fame and fortune. To be |
| sure, he/she resembles | more than | • |

