

Match the Parents with the Children!

You will meet four sets of parents who are missing their children! Using the characteristics listed below, you will match the children to their parents.

Firstly you will need to complete the table with which trait is dominant or recessive.

| Characteristics | Phenotype | Genotype | Dominant or Recessive? |
|-----------------|--------------------|----------|------------------------|
| Eye Colour | Brown eyes | BB or Bb | |
| | Blue eyes | bb | |
| Hair Colour | Brown hair | HH or Hh | |
| | Red hair | hh | |
| Ear Lobes | Free ear lobes | EE or Ee | |
| | Attached ear lobes | ee | |
| Mid-digit hair | Mid-digit hair | DD or Dd | |
| | No mid-digit hair | dd | |
| Tongue Rolling | Able to roll | TT or Tt | |
| | Can't roll tongue | tt | |

1. Who are the parents?

In the tables below, each parent has been listed with their phenotypes and genotypes. Complete a Punnet Square for each of the sets of parents to see what their children could have.

Couple 1: Jen and Zac

| Jen's Phenotype | Jen's Genotype | Zac's Phenotype | Zac's Genotype |
|--------------------|----------------|--------------------|----------------|
| Blue eyes | bb | Blue eyes | bb |
| Red hair | hh | Brown hair | Hh |
| Attached ear lobes | ee | Attached ear lobes | ee |
| No mid-digit hair | dd | No mid-digit hair | dd |
| Can't roll tongue | tt | Rolls tongue | TT |

Eye Colour

| | | |
|----------|----------|----------|
| | b | b |
| b | | |
| b | | |

Hair Colour

| | | |
|----------|----------|----------|
| | H | h |
| h | | |
| h | | |

Ear Lobes

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|----------|----------|----------|
| | e | e |
| e | | |
| e | | |

Mid-digit Hair

| | | |
|----------|----------|----------|
| | d | d |
| d | | |
| d | | |

Tongue Rolling

| | | |
|----------|----------|----------|
| | T | T |
| t | | |
| t | | |

Couple 2: Kate and Rick

| Kate's Phenotype | Kate's Genotype | Rick's Phenotype | Rick's Genotype |
|------------------|-----------------|--------------------|-----------------|
| Blue eyes | bb | Blue eyes | bb |
| Red hair | hh | Red hair | hh |
| Free ear lobes | EE | Attached ear lobes | Ee |
| Mid-digit hair | DD | No mid-digit hair | dd |
| Roll tongue | TT | Can't roll tongue | tt |

Eye Colour

| | | |
|----------|----------|----------|
| | b | b |
| b | | |
| b | | |

Hair Colour

| | | |
|----------|----------|----------|
| | h | h |
| h | | |
| h | | |

Ear Lobes

| | | |
|----------|----------|----------|
| | E | e |
| E | | |
| E | | |

Mid-digit Hair

| | | |
|----------|----------|----------|
| | d | d |
| D | | |
| D | | |

Tongue Rolling

| | | |
|----------|----------|----------|
| | t | t |
| T | | |
| T | | |

Couple 3: Tana and Leo

| Tana's Phenotype | Tana's Genotype | Leo's Phenotype | Leo's Genotype |
|------------------|-----------------|--------------------|----------------|
| Brown eyes | BB | Brown eyes | Bb |
| Brown hair | HH | Brown hair | HH |
| Free ear lobes | EE | Attached ear lobes | ee |
| Mid-digit hair | Dd | Mid-digit hair | DD |
| Roll tongue | Tt | Can't roll tongue | tt |

Eye Colour

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Hair Colour

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Ear Lobes

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Mid-digit Hair

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Tongue Rolling

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Couple 4: Steph and Liam

| Steph's Phenotype | Steph's Genotype | Liam's Phenotype | Liam's Genotype |
|--------------------|------------------|--------------------|-----------------|
| Brown eyes | Bb | Brown eyes | BB |
| Brown hair | HH | Brown hair | Hh |
| Attached ear lobes | ee | Attached ear lobes | ee |
| No mid-digit hair | dd | Mid-digit hair | Dd |
| Roll tongue | TT | Can't roll tongue | tt |

Eye Colour

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Hair Colour

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Ear Lobes

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Mid-digit Hair

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Tongue Rolling

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2. Who are the Children?

Below are four children and each one belongs to one of sets of parents – but which child matches with which parents? Use the information from the punnet squares you did for the parents to help you out.

Matthew

| Phenotype | Genotype |
|----------------|----------|
| Blue eyes | bb |
| Red hair | hh |
| Free ear lobes | Ee |
| Mid-digit hair | Dd |
| Roll tongue | Tt |

What couple had Matt? Why?

Nish

| Phenotype | Genotype |
|--------------------|----------|
| Blue eyes | bb |
| Red hair | hh |
| Attached ear lobes | ee |
| No mid-digit hair | dd |
| Roll tongue | Tt |

What couple had Nish? Why?

Raj

| Phenotype | Genotype |
|--------------------|----------|
| Brown eyes | BB |
| Brown hair | HH |
| Attached ear lobes | ee |
| No mid-digit hair | dd |
| Roll tongue | Tt |

What couple had Raj? Why?

Charlotte

| Phenotype | Genotype |
|-------------------|----------|
| Brown eyes | Bb |
| Brown hair | HH |
| Free ear lobes | Ee |
| Mid-digit hair | Dd |
| Can't roll tongue | tt |

What couple had Charlotte? Why?