

Presentation: DNA Painter Matrix

GeneFriends DNA Meeting-September 9, 2025

- DNA Painter never has you download your raw dna file from your testing site.
- Premium Subscription with DNA Painter is \$55 per year. They do offer sales from time to time (typically \$10 off).
 - Free Account with DNA Painter: You receive one matrix (with all capabilities) included. If you need an additional matrix, print it, clear it and create a new one.
 - The website has blogs and videos related to all of Jonny Perl's Tools. Sign up for his free monthly newsletter too. Full of great info and dna related news.

What is the Matrix

- A Matrix is information presented in a grid format.
- Common Matrix examples: an excel spreadsheet, a Leeds chart, an autocluster. Other dna software programs offer shared matches capability that can be used to show or build a matrix (FTDNA (In Common With), GedMatch (People who match both kits), 23andMe and My Heritage) within their program.
- The matrix is a visual presentation of your shared matches data and the typical ranges for known relationships.

Purpose of the Matrix

- Visualize how your matches share dna with each other.
- Your matches names are shown across in columns and down the left-hand column.
- The cells contain centimorgan amounts shared between a group of matches.

	Mary	Bill	Sally
Mary	0	2600	342
Bill	2600	0	404
Sally	342	404	0

Using the Matrix Tool

- Information is manually entered or can be imported from various programs (see DNA Painter instructions on the website).
- Relationships must be entered into manually at this time.
- Features include Load, Export, Share, Clear, Edit Mode and Settings.
- Setting features include Sort order of matches, matrix modes, column headings (show shortened names, show full names, show initials across the top row).
- Shading Color Schemes for DNA shared, vs. Expected and SD from Average.
- You can also add notes for your matrix.

- If you are using Banyan DNA, this tool is excellent for capturing your shared dna to use in building your genetic tree in Banyan.
- You can display your relationships in the matrix as an option.
- New testers can be added to your matrix at any time.
- Input your information for each tester.

Basic information

Full name

Short name/initials

Testing platform

Kit number

Year tested

Notes

CANCEL SAVE

- Go to Edit Mode, click on tester and enter shared centimorgan amounts between each tester.
- Click on the Relatives and shared DNA and enter the relationship between matches. If you do not enter relationship to a match, you will not be able to see shading options for that match.
- Adding Testing Platform, Kit Number and Year Tested are optional.

Basic information **Relatives and shared DNA**

Name	Shared cMs	Relationship with P
Jane	2682	Bro
Simon	831	Brother relationship

CANCEL SAVE

- Click on a cell to see more information. This will show how much dna two people share.

	JMP	JRP	SJP
JMP	--	2595	2071.6
JRP	2595	--	1419.5
SJP	2071.6	1419.5	--

- Information available: Show cM (as seen above) or % Shared
- Shading to show: DNA shared, vs. Expected, SD (standard deviation) from average.
- Clicking on a column header will move that tester to the top and sort the other testers based on the current shading mode.
- Click on a tester's name, if shading is set to DNA shared, the testers would appear in order of how much dna shared with that tester. If shading set to SD from Average, the other testers appear in order of how many standard deviations from the average their relationship is with the tester you selected.
- A Standard Deviation is a calculation that represents how spread out a set of numbers is. These calculations exist for every relationship in the cM Shared Project. Tool shows how far an amount is from the average for that relationship.
- These amounts are shown in a gradient color scheme which can be adjusted to your color preference under the settings feature.

If you have questions or need assistance, please feel free to contact me at kbartera@yahoo.com
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