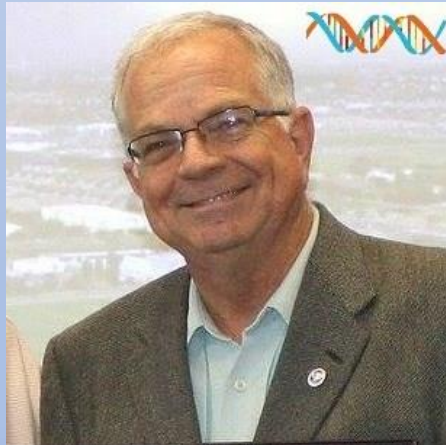


# Working With DNA Matches



## Encore Genealogy



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<http://familytreeaz.com/presentations>



November 2023

All slides and handouts can be found at:  
<http://www.familytreeaz.com/Presentations/>



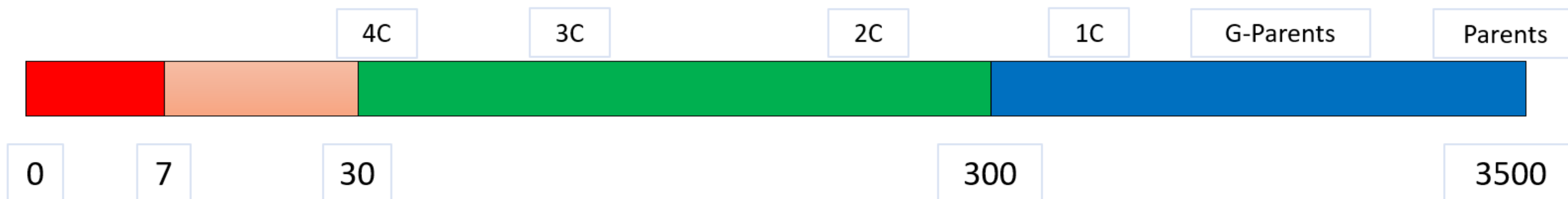
QR Code: take photo to  
open to presentations

# Before We Start

- What is a “DNA match”?
  - Someone who shares DNA with the test taker
  - There are 5 DNA testing companies: Ancestry, My Heritage, Family Tree DNA, Living DNA, and 23andMe
  - Close relatives share more DNA than more distant relatives
  - All 5 testing companies will show your DNA matches with the closest relatives at the top

# Before We Start -- centiMorgans

- “Closeness” is measured in centiMorgans
- Match strength can be anything from 0 centiMorgans up to 3500
- Most useful range for working your tree is 30 to 300 cMs
- Below 30 might be more distant and may be more likely to be possible multiple cousin (related in 2+ ways)
- Above 300 should be in your “already known” list of close relatives
  - Of course----that is not ALWAYS the case!



# 5 Steps: Goals Working With Matches

- STEP 1: Identify common ancestral line
- STEP 2: Identify the match
- STEP 3: [OPTIONAL] Build a tree for the match
- STEP 4: Add the match to your primary DNA tree
- STEP 5: [OPTIONAL] Contact the match

# Before We Start

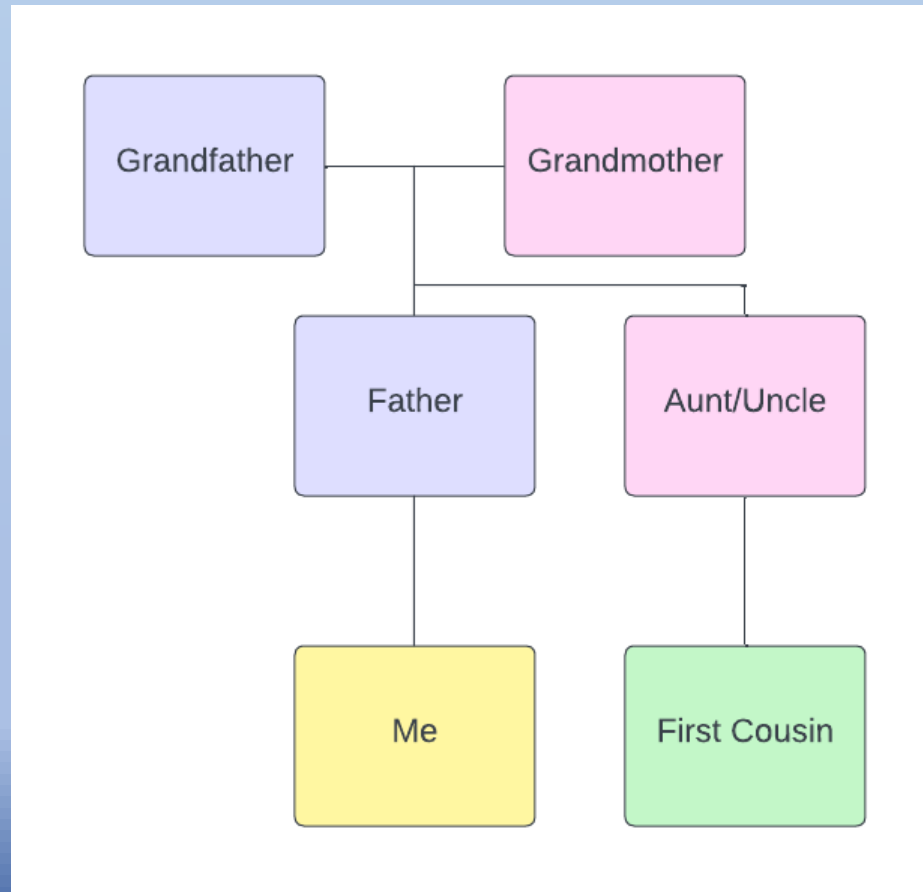
- What sort of information is provided about a match?
  - Name, initials, or identifying alias
  - Strength (closeness) of the match measured in centiMorgans
  - Estimated relationship
- In some cases:
  - Family tree (linked or unlinked)
  - User-provided metadata for the test-taker (city/state, age range)

The screenshot shows a DNA match interface. On the left is a profile for 'Joan Anita Craddock' with a photo. In the center, a match is identified as 'Mother' with '3,474 cM | 50% shared DNA' and 'Maternal side'. On the right, a 'Public linked tree' is shown with '2,687 People' and 'Common ancestor'. A 'View match' button is on the far right. Yellow arrows point to the name, relationship, and tree information. A yellow box highlights the relationship and shared DNA text. A yellow arrow points to the tree information. At the bottom left, a small box says 'Mother, 3474/46.' and at the bottom right, there are star and edit icons.

# Some Relationship Basics

# What's a 1<sup>st</sup> cousin?

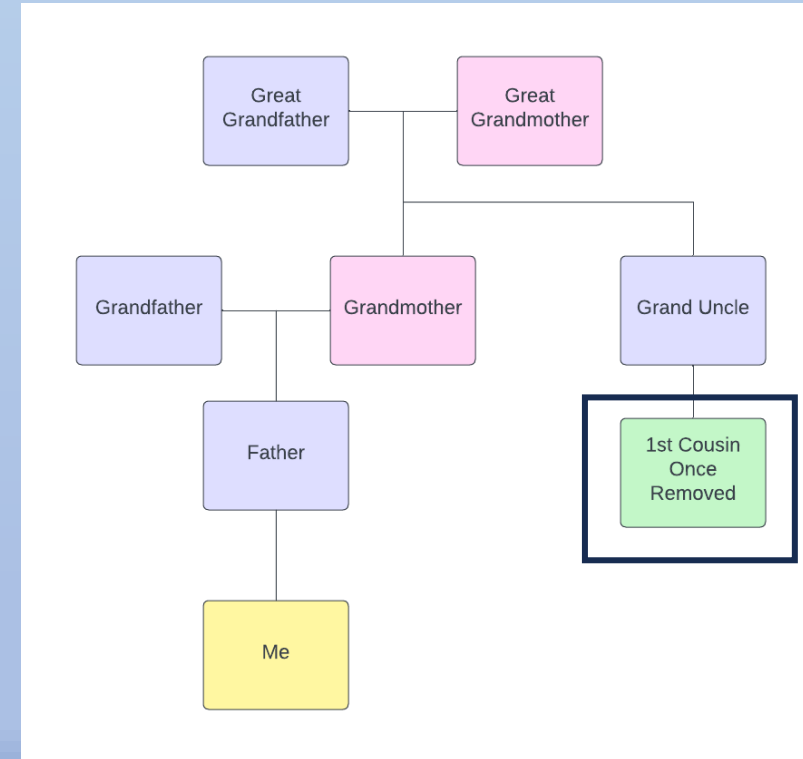
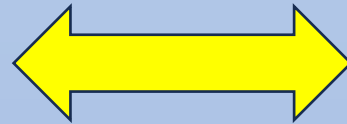
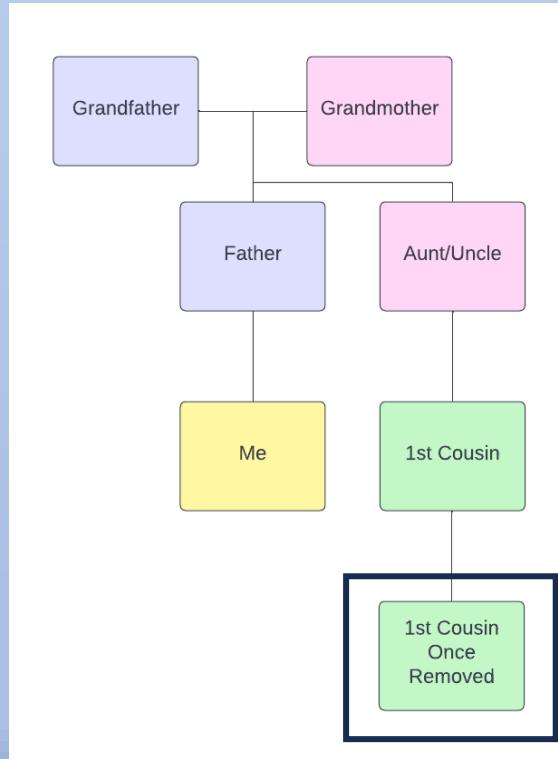
- Someone who shares grandparents with you





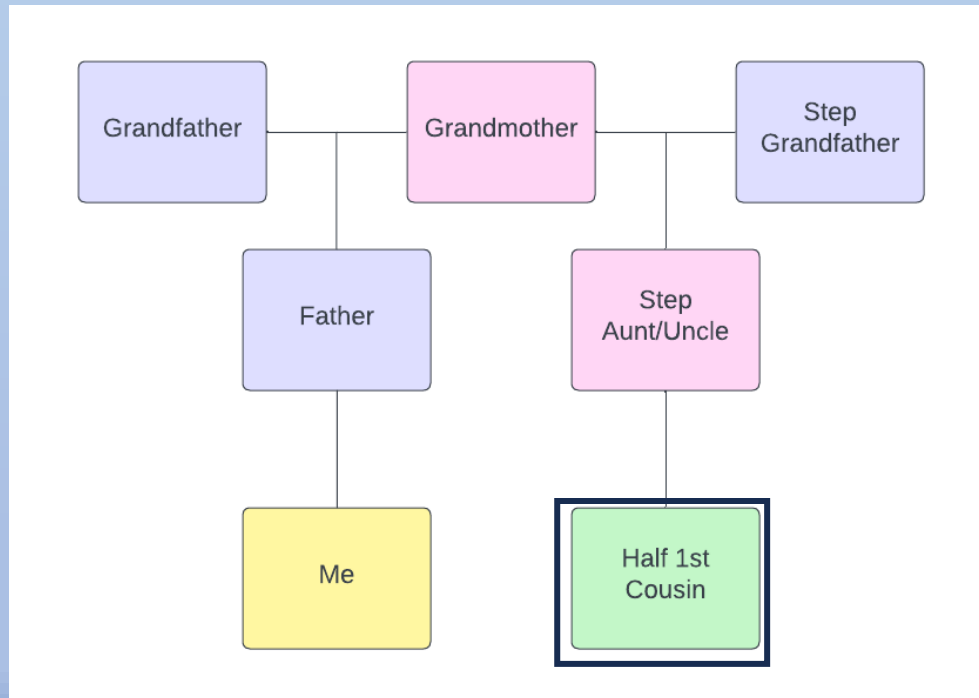
# What is a 1<sup>st</sup> cousin once removed?

- 1<sup>st</sup> cousin sharing grandparents but one generation removed



# What is a half-1<sup>st</sup> cousin?

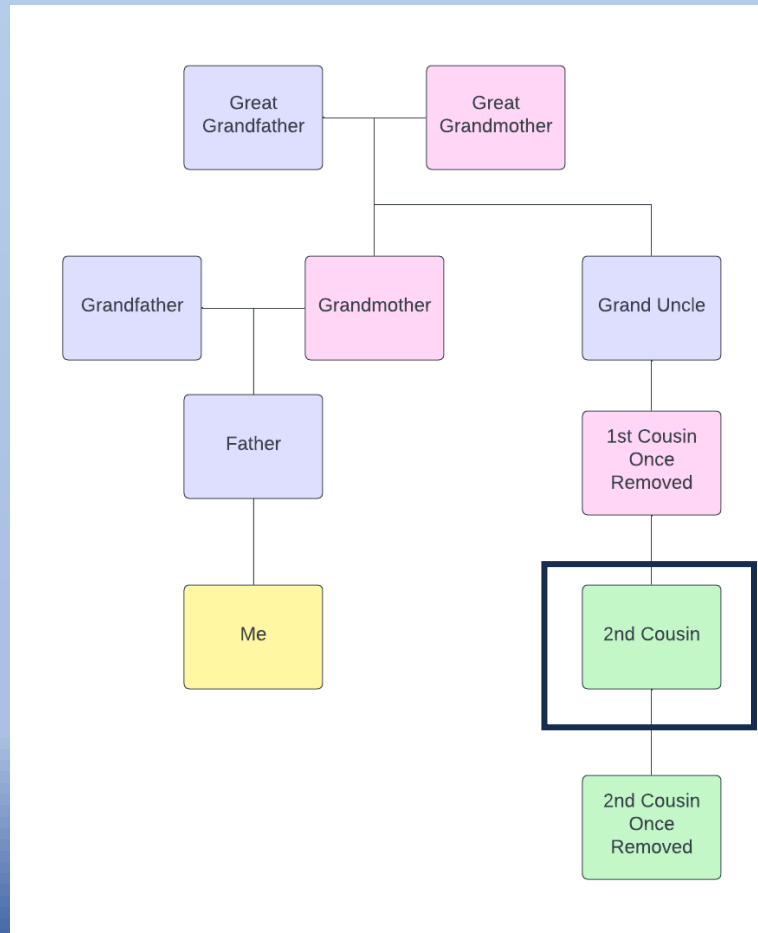
- Someone who shares only one grandparent with you



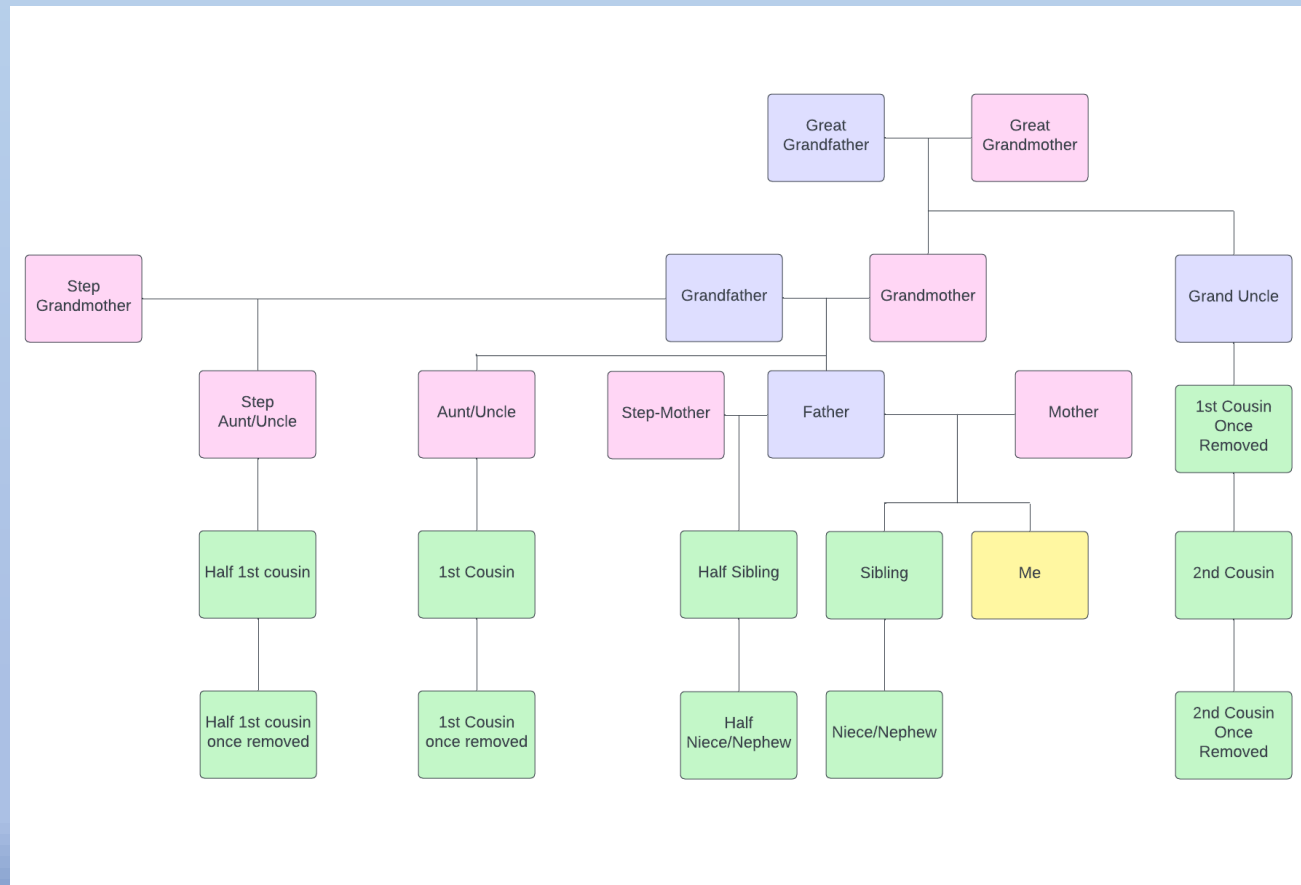
Since only one grandparent is shared a  $\frac{1}{2}$  1<sup>st</sup> cousin will share less DNA than a full 1<sup>st</sup> cousin would, typically about half as measured in centiMorgans

# What is a 2<sup>nd</sup> cousin?

- Someone who shares a set of great grandparents with you

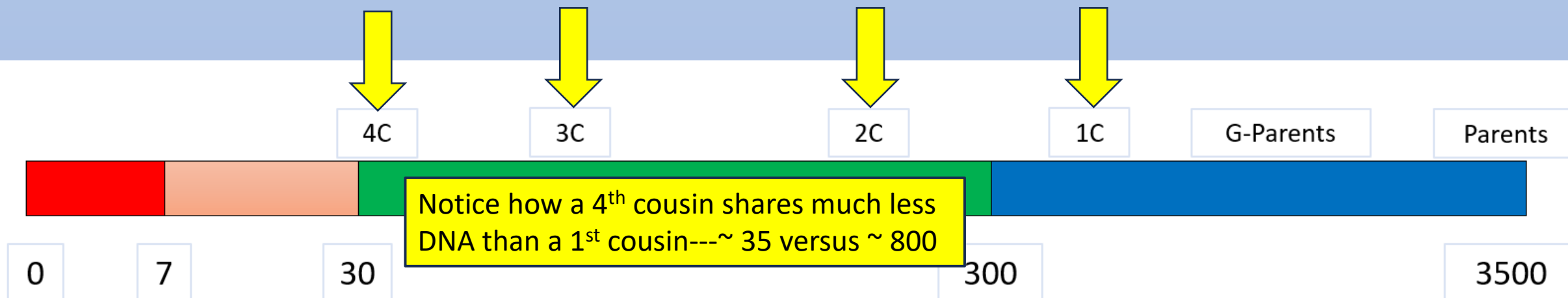


# Putting it all together



# Why is all this important??

- Relatedness is tied to the centiMorgan (cM) values
- For instance, 1<sup>st</sup> cousins typically are in a range from 400 to 1400 cMs
- A half-1<sup>st</sup> cousin is “generally” about half that range or 150 to 600 cMs
- Similarly, a 1<sup>st</sup> cousin once removed is also in the range of 150 to 600 cMs



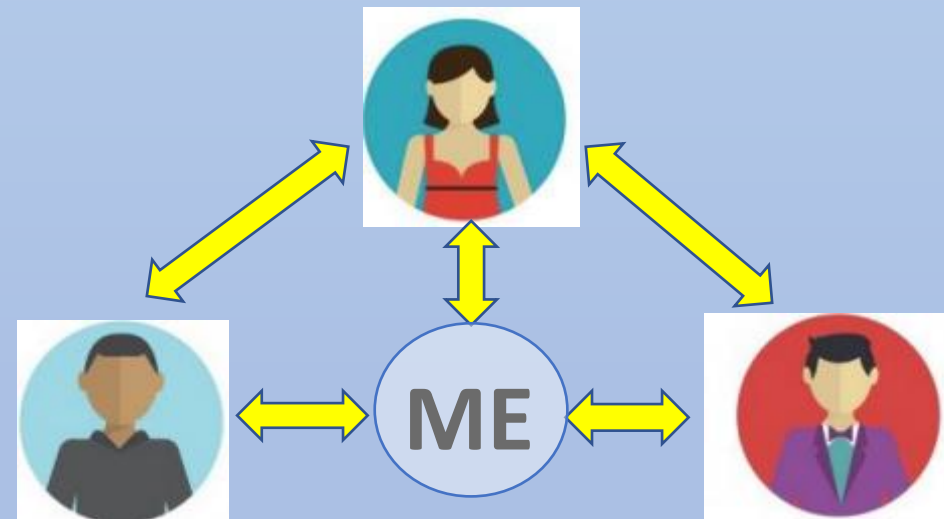
Step 1: Identify Common Ancestral Line

# Step 1: Identify Common Ancestral Line

- One invaluable tool: SHARED MATCHES

Trees Ethnicity Shared Matches

- These are other matches who match both you and the other match
  - Often these can be used to hypothesize a common ancestral line



**CAUTION:** there can be times when the shared DNA is not common to all---in other words, two matches common to you might not actually be related to each other

# Step 1: Identify Common Ancestral Line

- All 5 testing companies will show you shared matches

Special Note: at this time [Nov 2023], 23andMe is not showing shared matches due to security issues

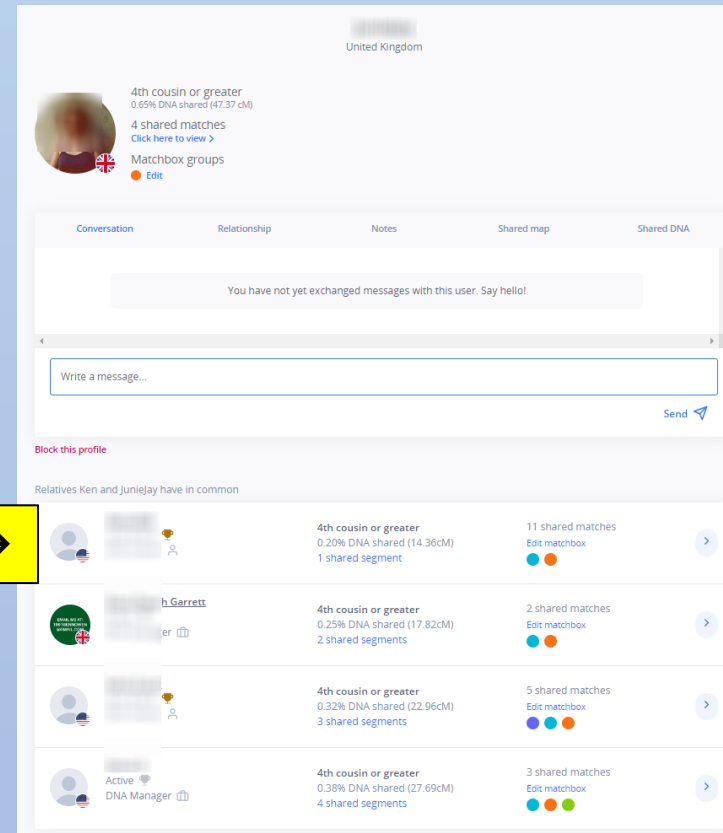
Probable relationship to you	Shared match	Probable relationship to Ernest Howard Waters
Daughter	49.9% (3,540.7 cM)	Great-niece
1st cousin	10.2% (725.1 cM)	Son
Brother	36.4% (2,581.4 cM)	Nephew
Son	50.0% (3,541.1 cM)	Great-nephew
1st cousin's daughter	5.5% (387.5 cM)	Granddaughter

This is an example from My Heritage showing the shared matches I have with my Uncle's kit



# Step 1: Identify Common Ancestral Line

- Living DNA example

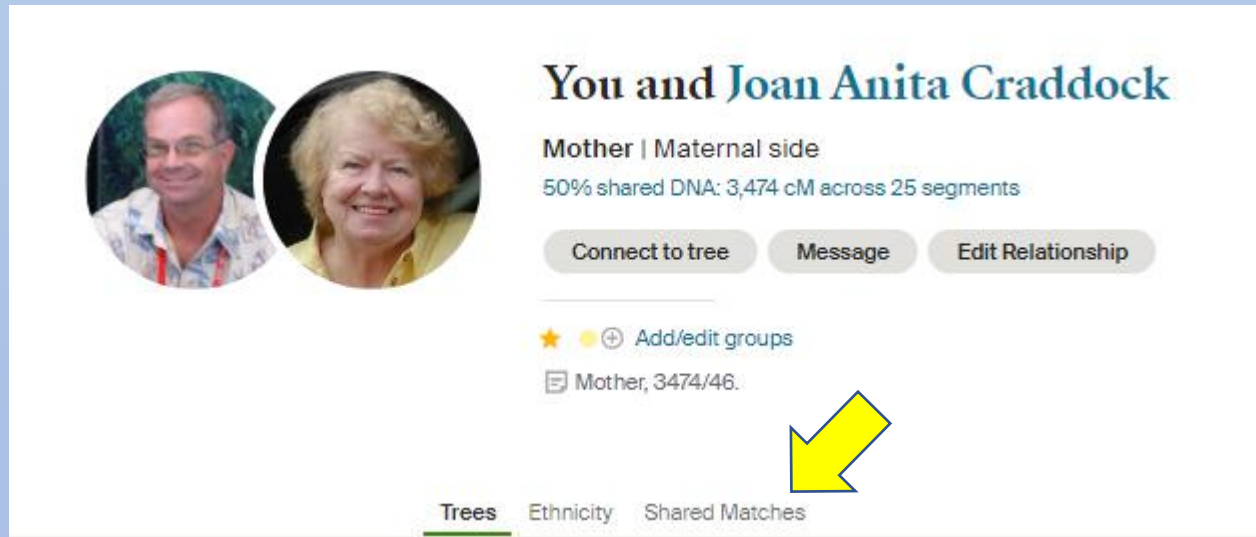


Closest shared match →

This is an example from Living DNA showing the shared matches I have with a cousin

# Step 1: Identify Common Ancestral Line

- To see shared matches on Ancestry, click on the Shared Matches tab



The screenshot displays a profile for Joan Anita Craddock. On the left, there are two circular profile pictures: one of a man and one of Joan Anita Craddock. To the right of the photos, the text reads "You and Joan Anita Craddock" in a large, dark blue font. Below this, it says "Mother | Maternal side" and "50% shared DNA: 3,474 cM across 25 segments". There are three buttons: "Connect to tree", "Message", and "Edit Relationship". Below the buttons, there is a section for "Add/edit groups" with a star icon and a plus sign, and a list item "Mother, 3474/46.". At the bottom, there are three tabs: "Trees" (which is underlined and has a green bar below it), "Ethnicity", and "Shared Matches". A large yellow arrow points to the "Shared Matches" tab.

# Step 1: Identify Common Ancestral Line

- This will yield a list of other matches who share with you as well as the other test taker
- Sorted by strength level

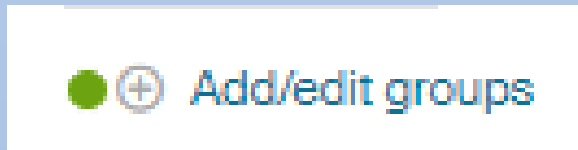
**KEY:** Look for shared matches that you know how you are related to. For instance, a 1<sup>st</sup> cousin match would help identify a set of grandparents; a 2<sup>nd</sup> cousin could identify a great-grandparent couple. A 3<sup>rd</sup> cousin could identify a common great-great grandparent couple

The screenshot shows a DNA match profile for 'You and Joan Anita Craddock'. The profile is categorized as 'Mother | Maternal side' with 50% shared DNA (3,474 cM across 25 segments). It includes buttons for 'Connect to tree', 'Message', and 'Edit Relationship'. Below this, there are tabs for 'Trees', 'Ethnicity', and 'Shared Matches', with 'Shared Matches' being the active tab. A filter bar shows 'Unviewed', 'Common ancestors', 'Notes', 'Trees', and 'Groups'. The main content area is divided into sections: 'Parent/Child', 'Full Sibling', and 'Close Family'. Each section lists matches with their relationship, shared DNA, and a 'View match' button.

Relationship	Shared DNA	Public linked tree	Common ancestor	Action
Daughter	3,470 cM   50% shared DNA Both sides	2,687 People	Common ancestor	View match
Son	3,466 cM   50% shared DNA Both sides	2,687 People	Common ancestor	View match
Brother	2,491 cM   44% - 51% shared DNA Both sides	2,687 People	Common ancestor	View match
1st cousin 1x removed	369 cM   5% shared DNA Maternal side	4,505 People	Common ancestor	View match
2nd cousin	309 cM   4% shared DNA Maternal side	No Trees		View match
2nd cousin	226 cM   3% shared DNA Maternal side	No Trees		View match

# Step 1: Identify Common Ancestral Line

- Highly Recommended:
  - Use Ancestry's Tag Groups to identify ancestral lines
- This greatly simplifies the process of identifying common ancestral lines



<input type="checkbox"/>	1 - Waters/Unknown (8)
<input type="checkbox"/>	2 - Berkley/Wheeler (38)
<input type="checkbox"/>	3 - Sylvia/Correia (74)
<input type="checkbox"/>	4 - Lemos/San Jose (141)
<input type="checkbox"/>	5 - Craddock/Spivey (163)
<input type="checkbox"/>	6 - Wood/Thurman (221)
<input type="checkbox"/>	7 - Unknown/Unknown MYSTERY
<input type="checkbox"/>	8 - Spencer/Cummings (183)

See my presentations on using tag groups (Dec 2021 and Mar 2023)

# Step 1: Identify Common Ancestral Line

- Once you've built up enough matches using tag groups it becomes incredibly easy to quickly sort the match into the correct ancestral line
- I just opened up this unviewed 20 cMs match and can quickly identify which ancestral line by looking at the color dots

**You and E**  
5th - 8th Cousin | Maternal side  
20 cM shared DNA across 1 segments

Filter by: Unviewed Common ancestors Notes Trees Groups

Parent/Child	Relationship	Shared DNA	Public Tree	Do you recognize them?
Mother	3,476 cM   50% shared DNA Maternal side	Public linked tree 2,687 People	Common ancestor	Yes Learn more
Daughter	3,470 cM   50% shared DNA Both sides	Public linked tree 2,687 People	Common ancestor	Yes Learn more
4th - 8th Cousin	34 cM   < 1% shared DNA Maternal side	Public linked tree 589 People		Yes Learn more
4th - 8th Cousin	33 cM   < 1% shared DNA Maternal side	Public linked tree 1,765 People		Yes Learn more
4th - 8th Cousin	29 cM   < 1% shared DNA Maternal side	Public linked tree 1,765 People		Yes Learn more
4th - 8th Cousin	28 cM   < 1% shared DNA Maternal side	Public linked tree 5 People		Yes Learn more
4th - 8th Cousin	28 cM   < 1% shared DNA Maternal side	No Trees		Yes Learn more
4th - 8th Cousin	28 cM   < 1% shared DNA Maternal side	Unlinked Tree		Yes Learn more

3 - Spencer/Cummings (23)

Step 2: Identify the Match

## Step 2: Identify the Match

- The process of identifying exactly how you are related to the DNA match often requires [Identifying the Match](#)
- This is needed in order to build a tree for the person as well as knowing where to place the person in your DNA tree
- Many matches can be identified but some may be difficult or impossible

# Step 2: Identify the Match

- A variety of techniques can be used such as people-finding sites, Google searches, public records searches in Ancestry, Facebook, etc.
- In particular try to obtain:
  - Full name including middle initial/name
  - Birth date including the date

TIP: Once I have fully ID'ed a match I like to put that information into the Notes field for future use e.g., "John Smith, 20 Feb 1940, living in Cincinnati"

For much more on this please see my Jan 2023 presentation on identifying matches



Step 3: Build a Tree for the Match

# Step 3: Build a Tree for the Match [OPTIONAL]

- You can only do this if you have successfully identified the match (Step 2)

NOTE: this may not be necessary if the match already has a tree with good sourcing and indicates the shared ancestral couple

- Why do this?
  - Build the tree back in time looking for common ancestral line
- You'll need full name, DOB, and a few sources for this living person such as public records, state birth records (e.g., CABI)
- As always with quick-and-dirty research trees, keep these trees **PRIVATE** and **UNSEARCHABLE**

See my presentation Building a Research Tree, Jun 2021

# Step 3: Build a Tree for the Match [OPTIONAL]

- But why can't you just use the tree that the match might already have linked to the DNA kit??
- **“Trust but Verify”**
- Existing tree may have errors in it
- Existing tree might not be sourced with quality records in it (e.g., census, public records, birth records)
- Existing tree might not go far back enough in time



Public linked tree  
4,201 People

TIP: By building your own tree you have full control to select sources to use

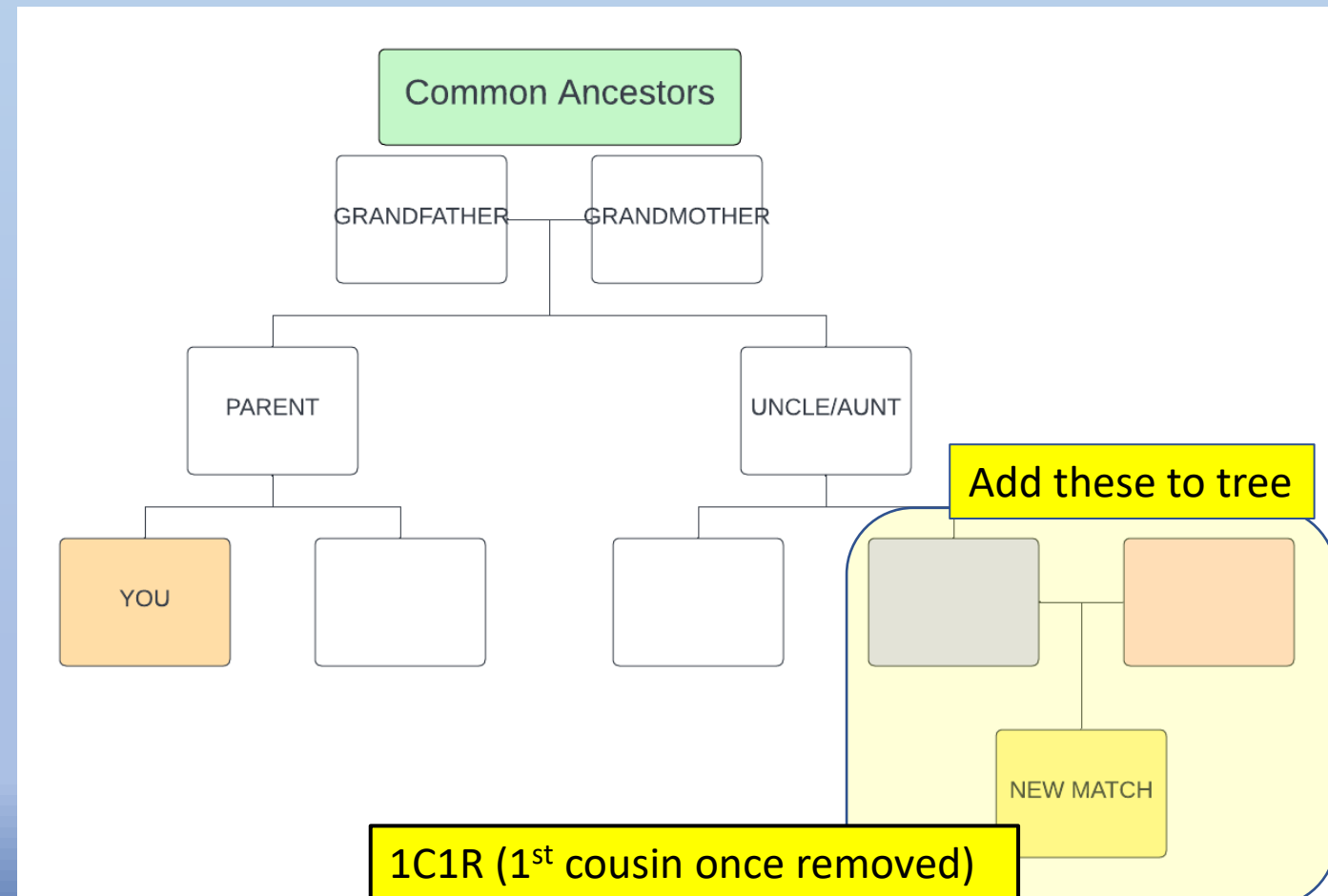
Step 4: Add Match to Your Tree

# Step 4: Add Match to Your Tree

- Once you know exactly how you are related to the match:
  - Add the person to your DNA tree

What is a DNA tree? A tree that is linked to a DNA kit and is kept at a reasonable size

- Adding that new match into your tree will help Ancestry's Shared Match Hints to identify possible common ancestor for other matches



# Step 4: Add Match to Family Tree

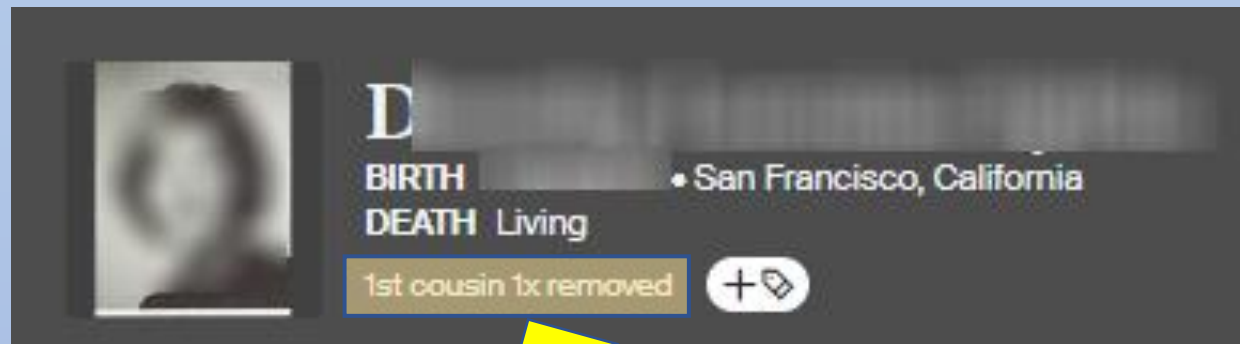
- Start at the identified common ancestor level and continue down until you've added the match to the tree

The process is shown in three stages:

- Match Identification:** A match for John E. Craddock (1834-1871) and Malinda Spivey (1839-1909) is identified.
- Family Tree Navigation:** The user navigates to the family tree of John E. Craddock. A dropdown menu is open, showing options: "Add family member", "Spouse", "Son", "Daughter", "Brother", and "Sister". The "Add family member" option is selected.
- Add New Person Form:** A form titled "Add a sister for Charles Noble Craddock" is displayed. The form includes fields for "First and middle name", "Last name" (Craddock), and "Suffix". The "Gender" is set to "Female" and "Status" is "Deceased". The "Birthdate" and "Birthplace" fields are present. The "Parents" section is pre-filled with "John E. Craddock and Malinda Spivey".

# Step 4: Add Match to Family Tree

- If added correctly Ancestry should show the exact relationship relative the “Home” person in the tree



Step 5: Contact the Match [OPTIONAL]



# Step 5: [OPTIONAL] Contact the Match

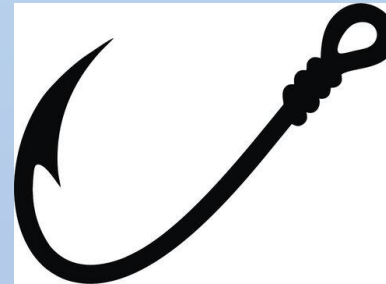
- I “generally” do not attempt to contact matches
- ONLY if there’s a strong reason (close cousin, asking for specific information, etc.)
- BECAUSE very low response rates are common with Ancestry messages
  - People not interested?
  - People don’t see the message indicator?
  - People changed emails or may even be deceased
  - Flaky Ancestry messaging system



Do as much research on the match as possible before attempting contact!

# Step 5: [OPTIONAL] Contact the Match

- If you do try to contact one:
  - Try to include a “hook” --- you’re fishing here and want to hook the line
  - You want to get the person interested in your message
  - Keep details to a minimum (no mentioning of triangulation, centiMorgans, etc.)
  - Try to mention a few relevant surnames that you think may be familiar to the person from their own family heritage
  - Short, succinct request is best



Expect the Expected --- no response.  
Getting a response is a nice surprise!

Hello Doris, my name is Ken Waters and it looks like we may be cousins. I believe we may be related on the GIBSON or MATHEWS family lines. Do you recognize these names as possible relatives? Thanks so much for taking the time to respond.

# Step 5: [OPTIONAL] Contact the Match

- Not just Ancestry messaging!
- Think out of the box as you might find the person on another platform that they might be more active on and so more responsive; maybe you can find the match's children who might be more communicative
- Several times I have elected to contact the person on Facebook rather than Ancestry --- my success rate doing this is much greater than Ancestry messaging

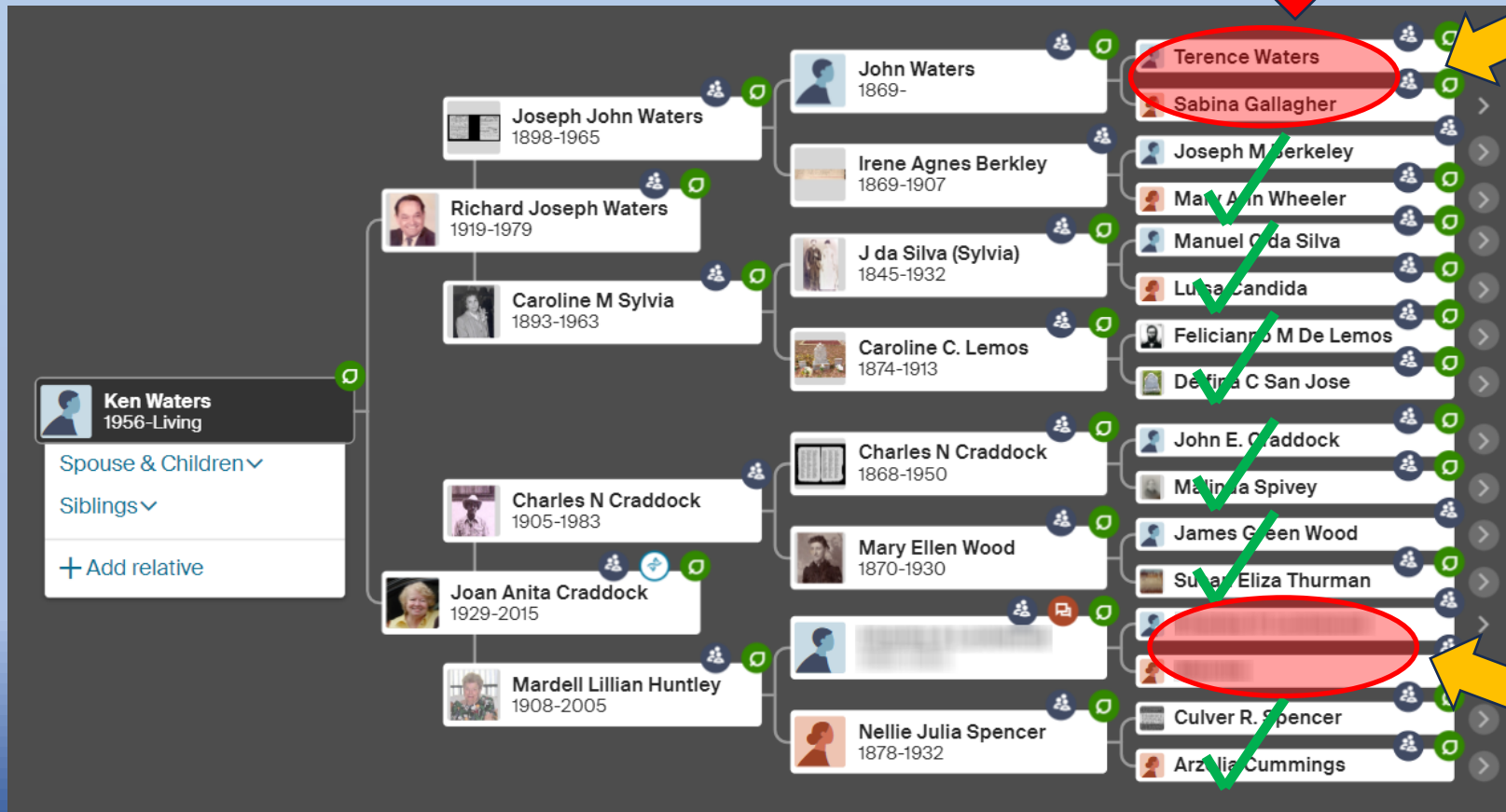


# Other Suggestions

# Ultimate Goal --- Validate Your Family Tree

16 2<sup>nd</sup> great grandparents

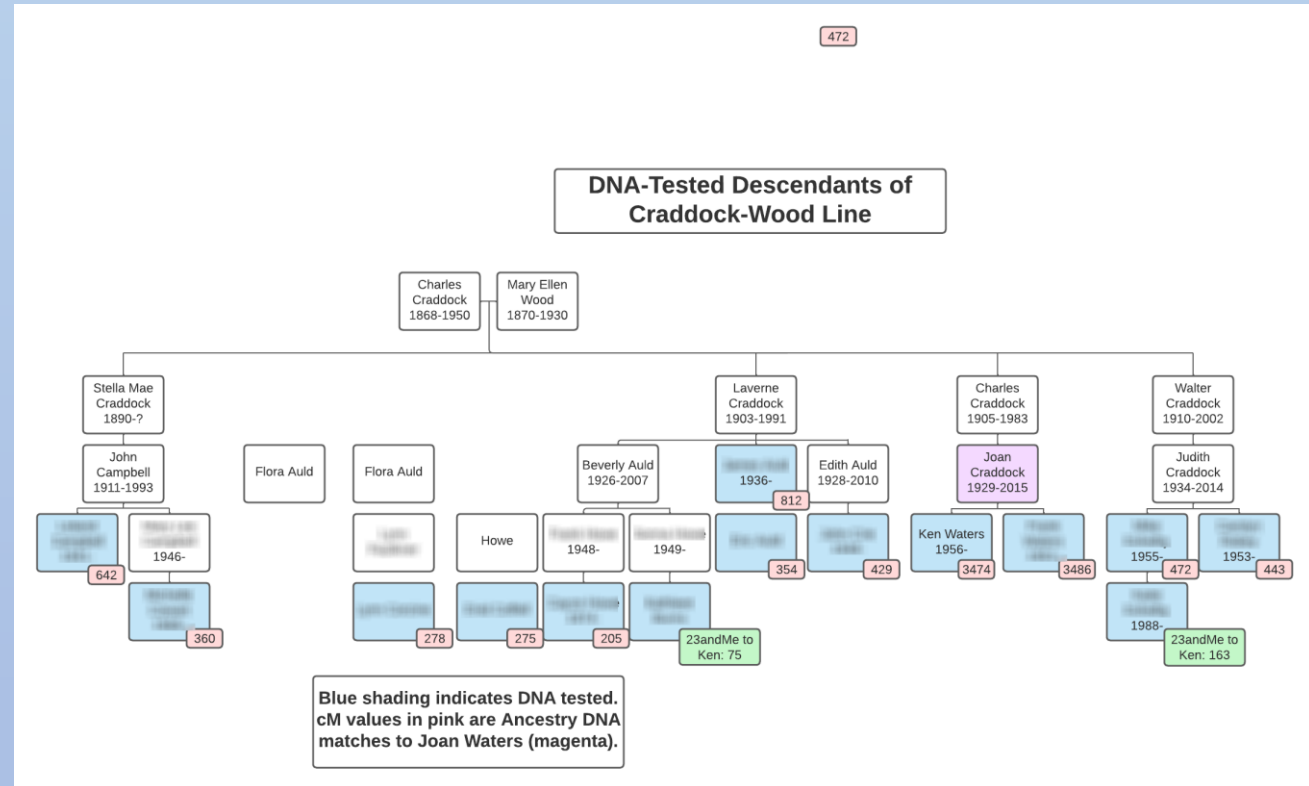
Two sets of 2<sup>nd</sup> great grandparents are brick walls --- looking for DNA matches to these couples that would be 3<sup>rd</sup> cousins



3<sup>rd</sup> cousins would share a set of 2<sup>nd</sup> great grandparents  
Look for 3<sup>rd</sup> cousins for each set of these

# Other Suggestions

- Consider building a DNA relational diagram (aka, descendancy diagram) when you have several matches related to each other



See my Nov 2022 presentation on building these

# Other Suggestions

- Keep checking for new matches
  - When you find them always try to “tag” them into the appropriate ancestral line
- Use the “Unviewed” filter to quickly see your newest matches



# Other Suggestions

- Make use of the Notes field!



- I often enter relevant information in the Notes field for each match to include:
  - Full name, DOB (if identified)
  - If known, exact relationship (e.g., 1C2R for 1<sup>st</sup> cousin twice removed)
  - Surname list from tree, if included

A screenshot of a DNA match card from a website. The card has a white background and a thin grey border. At the top left is a small, square profile picture of a person. To the right of the picture is the name "John Si". Below the name is the text "4th - 6th Cousin", "47 cM | < 1% shared DNA", and "Maternal side". To the right of this text is a small icon of a tree and the text "Unlinked Tree". At the top right of the card is the question "Do you recognize them?" followed by two buttons: "Yes" and "Learn more". At the bottom of the card is a horizontal line. Below the line is the text "Jo Si", "Jun 1997, daughter of DNA match P", and "B Garrison, Sep 1975. Grandfather was Richard Butler,". At the bottom right of the card are three small icons: a yellow circle, a blue circle, and a pencil icon.



# Upcoming Classes/Presentations

**Sat, Nov 18, 3 pm – Mesa Red Mountain Library**

**What mysteries can be revealed with a DNA test? We will discuss actual instances of surprise matches, how you can learn from them, and where to go from there.**



All library classes (highlighted blue) are free to attend and require no registration. Classes are held at the Red Mountain Mesa Public Library at 635 N Power Rd in Mesa (unless otherwise noted above).

# Remember---all presentations online

- Presentations: <http://familytreeaz.com/Presentations>



## **Genealogy Presentations**

**2023**

[Identifying Your DNA Matches \(Jan 2023\)](#)

**2022**

[A Unified Process for DNA Matches \(Dec 2022\)](#)

[Intro to DNA \(Dec 2022\)](#)

[DNA Painter Dec 2022](#)

[GEDMatch \(Trilogy\)](#)

[DNA Relational Diagrams](#)

[First Look at Ancestry SideView Matching](#)

[Deep Dive into MyHeritage DNA Oct 2022](#)

[What Can DNA Do For You Sep 2022](#)

[New Match Methodology 2022](#)

[GEDMatch Apr 2022 Handout](#)

[DNA Tips & Tricks](#)

[Intro to DNA \(Mar 2022\)](#)



Presentations:

<http://familytreeaz.com/Presentations>



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Paternal haplogroup (Big-Y700): R-FTB79747

Maternal haplogroup (Full series): H1c1

GEDMatch: A979857

