Advice from current and recent MRC LID students

Show your project proposal to as many people as possible. It may well not end up looking much like your PhD at all (mine certainly didn't!), but it should demonstrate your ability to write a brief and thoughtful proposal addressing a clear hypothesis using feasible methods. It is often a good idea to mention some possible "Plan Bs" for in case your initial plan doesn't quite work out.

My top advice for applicants would be to meet their prospective supervisors and current members of the supervisors' teams before even submitting an application.

When choosing a PhD, the project matters (because that's what they'll be working on every day), but I would argue that the people also equally matter (because that's who they'll be working with every day!). I'd recommend applicants to not be shy, reach out to prospective supervisors, meet them, and try to meet a couple of other members of their teams as well! (current PhD students, research assistants, postdocs...).

Where possible, co-create your PhD proposal with your (potential) supervisors. If you are interested in something not covered formally through your PhD research, be open and discuss these with them (supervisors), as they may be aware of other ways you can bridge those gaps.

Doing a PhD is not a straight line and it is unlikely to follow the exact plans you start out with. Be prepared to be flexible as the straight line you envisaged turns into a wiggly one. Not all of the work you do will come to something and this is common in research, so don't be disheartened by the occasional setback. Whatever way your research goes, the work you do will be valuable and any contribution to the furthering of knowledge is always important.

Speak to the supervisor about the project and what kind of supervisor they are e.g are they hands on? Will they be able to help you learn new protocols? If not is there a post doc in the group that can?

Contact previous PhD students in that group and arrange a 1:1 call with them to ask what the group environment is like! Anything they wish they had known when they started? What is the supervisor's style of supervision?

Applying for the 1+3 is a little different. Make sure to ask if you are unsure about the application process.

You are not expected to be an expert in your field yet! Talk to your prospective supervisor about the project and ask them to read a draft of your proposal.

Don't forget the big picture. The PhD will probably involve learning a lot of details about a specific method but don't forget the reason behind the PhD project as a whole. I found this was of more interest to the funders than specific details about methodology.

Pick a project that you're genuinely passionate about, and speak to your potential supervisors before applying to see if you think you could work well together!

Really make sure that the supervisor is suitable for your needs (this can be the things you want to learn, to the way they communicate and work, their ability to give you the type of support you require).

Decide what you want to get out of the PhD (particular skills, working in large team or totally autonomously, working with particular types of people like policymakers or in a particular place) and make sure the project can provide.

Don't sell yourself short: you will have unique qualities/experience that others don't. Make sure to emphasise this.

I wish I'd known how much support a good supervisor can give.

Your potential supervisors and interviewers usually aren't looking for someone who is already any expert in the field, they are looking for someone who can demonstrate a developing skill set to become an expert in the future.

Be a meticulous record keeper from the start. The things you think you will remember because you are thinking about them a lot at the time will be a figment of your imagination later in your studies.

Skills learnt from the working world, whether it was in science or not, go a long way when navigating a PhD. Let your supervisor and interviewers know you have these skills.

Try to show your proposal to a lay audience to make sure that the background and scientific need for your PhD project is understood by more than just you and your potential supervisor. Members of your interview panel will be from a range of specialties. This is one of the most important skills of a researcher - you will continue to communicate your research to those with less of an understanding of it than you for the rest of your career.