Why do I need to collect my own research?

You may feel that doing research is a waste of time and that you are better off just getting started on your design.

But if you simply rush into your project:

- How will you know what has been developed already?
- Perhaps someone else has had your idea?
- Perhaps someone else has already conducted some research into your area of interest?
- Perhaps there is a new development that would really help you

"Standing on the shoulders of giants" (Newton, 1676)

So putting some time aside to find out what has already been done and researched will:

- Save you time
- Stop you doing unnecessary research or testing
- Help you to understand the market you are working in
- Give you facts about what is possible
- Give you names/universities/businesses that are market leaders or experts in your field

Therefore it is useful to learn by "standing on the shoulders of giants." *(Isaac Newton, 1676)* or, to put it another way, using what has already been found out to inform your own design and investigations.

There are two kinds of research that you can do

The first is secondary research or looking at evidence produced by others (meaning you didn't do the actual research). Innovation means developing something new, but without knowing what has already been done in your area you; will not know what is possible, what has already been learned or what mistakes have been made!

✔ You will need to think about what you want to find and plan how to start your search (key words, search terms).

✔ Your research might reveal that there is a gap in the market that you could fill. It could also show what people think about a certain topic.

✔ To do effective research you will need to find out about which databases are available and which search engines that you can use to access academic research. Ask your Librarian or Teacher, or contact a Local University for support.

✔ Academic research is more likely to present conclusions that are backed up by evidence and include research aims and methods. In this way you will be able to look at the data and make up your own mind about the findings rather than relying on a blog or newspaper journalists opinion on the research.

✔ You will also need to find background scientific and technical knowledge so that you can link it to the kind of design you wish to make. In this way you can ensure that the product or service you design is more realistic.

✔ You team will need to meet together to review and go over the information that you have found – Do you need more answers? Has the research presented you with more questions?

It's important to find out what people think and what they need. To do this you may need to carry out primary research and gather your own information using questionnaires or interviews.

✔ You may do this by interviewing people in general to gather opinions or by asking specific questions to the potential users of your innovation.

As you gather the different kinds of information, you will be starting to firm up your ideas for your design. Once you start to put them into practice, you may find that the design doesn't work as you planned. So, more research may be required. The information that you gather should enable you to improve your design and project.