(a) A designer would undertake different multiple activities to determine whether an existing design product needs further development. There are many ways that a designer could undertake in some market research to determine if consumers feel that a development is needed to the existing product, this can be done by setting a survey which asks consumers questions that will show their thoughts on the topic. Another activity that a designer could undertake is brainstorming. By writing a whole heap of ideas in a brainstorming session will help show the designer other ways that the existing product can be developed.

Also another research technique is making a PMT. Writing down the Positives, Negatives and Interesting aspects that could or couldn’t come from developing the existing product. After deciding if a development will be going ahead, testing and prototypes will be needed to be able to communicate the new developments to production.
b) Even though a product may be still functional and aesthetically pleasing, products can still become unpopular or go 'out of date' quickly as competitors are always finding ways to make their products better than others. So, it is necessary to be constantly developing current models as the consumers are always looking for the newest.

Available and emerging technologies are always being discovered which helps develop existing products even more quickly than ever before, which also makes it necessary to be developing products or designing the developments as soon as the new materials, tools, techniques or technology is released.

Being prepared for when the existing product finally is not popular anymore by already having the developed designs ready allows the designer to straight away enforce the development while setting out new marketing for the developed product. By recognising the need for change, is a step that should be taken well before the...
Change is actually needed. Therefore by developing new functions and new aesthetics that are slowly being discovered and introduced as emerging technologies allow existing designs to be developed into innovations or just upgraded products from the existing ones. By allowing the product to be developed the success of the product will continue with the support of its consumers who use the products.

For example, Microsoft introduced the Xbox Kinect in 2010 it was the first gaming system where no controls were needed. Microsoft had trouble with some ethical issues of the Kinect not being able to recognise darker skinned people which was unethical. Microsoft had to develop a new the existing product to overcome this problem. Microsoft also connects to the Xbox Kinect via internet to constantly update the software so the Kinect to be able to satisfy users. Another example of one design...
which was taken and used for an innovation was made by Dyson where he saw the big fans used by factories to suck the exhausts from the inside and he worked on a new innovation for many years developing the design of the big exhaust fans to develop a new vacuum cleaner that used the same process as the big exhaust fans in the factories. By developing the design of a normal household vacuum cleaner he developed a new product even though the current model was still functional and aesthetically pleasing. The launch of these two products was phenomenal as the only thing that made them different from the current models was the new technologies that were used which made both designs very successful.