

# STEPS IN NEW PRODUCT DEVELOPMENT DESIGN

# NEW PRODUCT DEVELOPMENT DESIGN

- Developing a new product is a step-by-step process.
- At each step, a project is evaluated to determine whether it should continue.
- Product design is a cyclic process.

## New Product Development



# 1. CREATING A BRIEF

## *What is a brief?*

- A brief is a statement of the aims of the project and criteria to measure the success of the product.
- It may be broad or very specific and includes limitations such as; budget and timing.



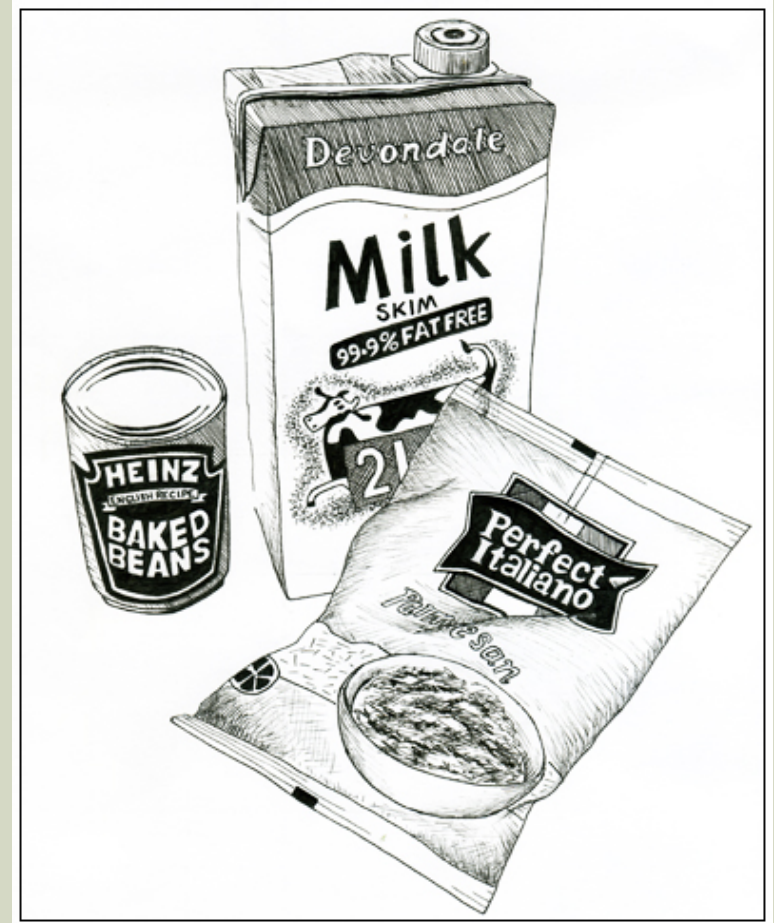
## 2. RESEARCH

- The manufacturer must investigate the target market to find out their needs and wants.
- The results will determine whether the original idea needs to be modified or dropped if consumers state that there is no need for it.



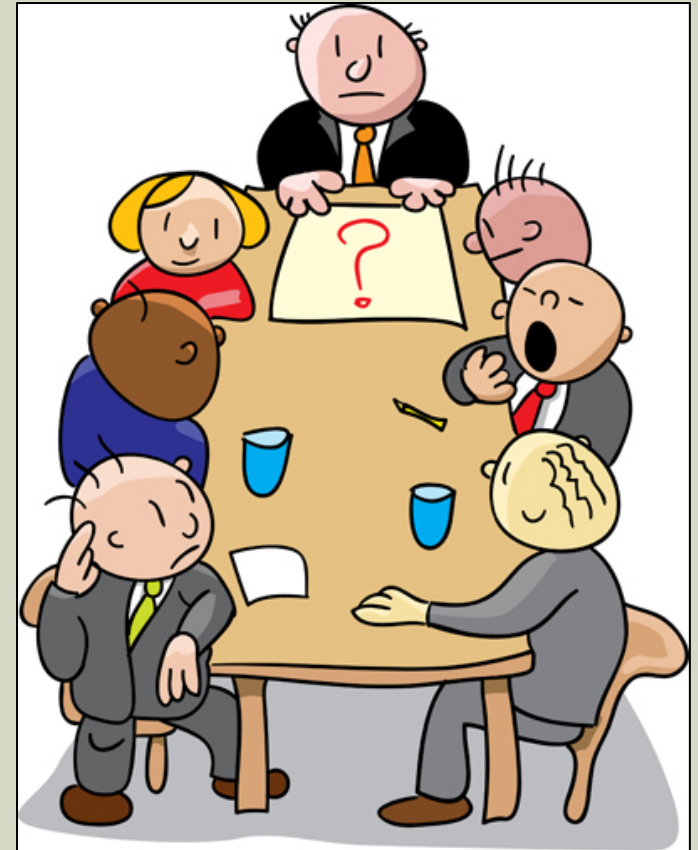
# 3. CREATING AND DEVELOPING IDEAS

- Possible ideas for the product and packaging are sketched and computer generated.
- Once ideas have been developed, manufacturers look for available ingredients and investigate processing methods.



## 4. ASSESSING OPTIONS AND SELECTING THE MOST APPROPRIATE

- The list of ideas generated is examined and each idea is matched with the criteria given in the design brief.
- The ideas that remain are investigated more closely to determine whether they will meet the budget constraints.



## 5. PRODUCTION

- Laboratory experimentation is aimed at developing a prototype (model) product that satisfies the design brief.
- All steps and results are recorded so that the recipe can be produced when a decision is made.
- In-house sensory testing is used to evaluate colour, flavour, aroma and texture.
- During this stage, the packaged and unpackaged product is tested for spoilage and deterioration under a variety of conditions.

# CONT..

- During the production stage, the actual cost of the product is then calculated.

$$\begin{aligned} &\text{Ingredient Cost} \\ &+ \\ &\text{Production Costs} \\ &+ \\ &\text{Packaging Costs} \\ &+ \\ &\text{Marketing Costs} \\ &= \\ &\text{Total Cost} \end{aligned}$$



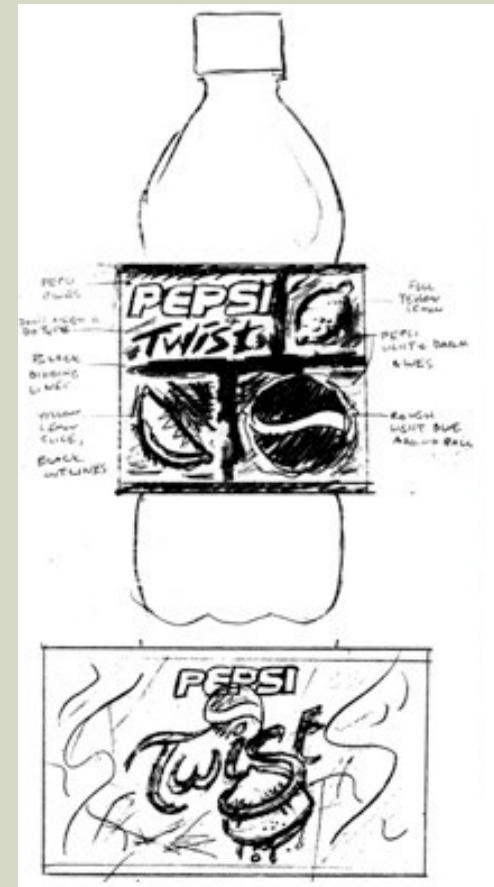
## 6. PILOT PRODUCTION

- The final product goes into full-scale production.
- Factory production is undertaken on a small-scale first with small batches so that production costs can be fine tuned before full-scale production.



# 7. PACKAGING

- The package design occurs at the same time as product design, following a similar design process.
- The development of a package for the new product is integral to its success and recognition in the market.



# 8. EVALUATING

- Evaluation is a continuous process undertaken at every stage of product development.
- Once the product has been developed into a successful prototype, market evaluation occurs.

## Sensory Assessment

- ✓ Sensory analysis is used to evaluate and describe the new product in terms of its senses; flavour, texture, aroma, appearance, noise.

