

# ITL PUBLIC SCHOOL

## Active Engagement of Young Minds during Summer Vacations 2026-27

Class: XII

Subject: Entrepreneurship

### Computational Thinking based Project

#### **Project Title: Market Survey**

Objective:

To apply Computational Thinking (CT) pillars to analyze the data gathered from your Market Survey, identify business patterns, and create a logic-based strategy for launching or scaling a product.

Task Guidelines

#### **Part 1: Decomposing the Market (The Blueprint)**

Select any one product from the following and break down your chosen product and its target market into four distinct quarters. Create a Mind Map or a Table that deconstructs your business idea into:

- Customer Demographics (Who bought/wants it?)
- Competitor Landscape (Who else is selling it and at what price?)
- Cost Structure (Fixed vs. Variable costs)
- Marketing Channels (Where do your customers spend their time?)

Attached is the suggested list of products for reference:

|           |              |                 |
|-----------|--------------|-----------------|
| Hair Oil  | Towels       | Wall clock      |
| Toaster   | Cooking Oil  | Water dispenser |
| Bread     | Dry fruits   | Crayons         |
| Chocolate | Organic dals | Hair colour     |
| Soft toys | Lip balm     | Pickle          |
| Crockery  | Frozen food  | Candy           |
| Milk      | Powder       | Sweets          |

#### **Part 2: Pattern Recognition & Abstraction (The Insights)**

Analyze the data from the Market Survey you previously conducted (Minimum sample size: 30 respondents).

Identify 3 Key Patterns: Look for correlations in your data. (e.g., "Students aged 15–18 prefer eco-friendly packaging but are highly price-sensitive," or "Working professionals prefer online delivery over in-store pickup.")

Apply Abstraction: Create a "Customer Persona" profile based only on the most critical, recurring data points. Filter out irrelevant survey answers (like favorite colors, unless relevant to the product) and focus strictly on purchasing triggers, pain points, and budget.

#### **Part 3: Algorithmic Logic (The Decision Tree)**

Develop a "Business Logic Flowchart" (Your Algorithm) for your startup's customer onboarding or pricing strategy.

Use standard flowchart symbols (Start/Stop, Decisions, Processes) to map out how your business will react to a customer.

Example Logic:

IF a customer buys more than 2 units, THEN apply a 10% discount.

ELSE IF they are a first-time buyer, THEN offer free shipping.

ELSE charge standard MRP.

#### **Part 4: The Minimal Viable Product (MVP) Dashboard**

Create a visual mockup of a digital dashboard (on a chart paper or using tools like Canva/Excel) that tracks the health of your product launch. It must include:

A Pricing Formula box showing how you arrived at your selling price:

Selling Price = Cost Price + Profit Margin

3 Key Performance Indicators (KPIs) you will track (e.g., Customer Acquisition Cost, Monthly Sales Volume, Customer Satisfaction Score).

**Submission Guidelines:**

Students must compile their work into a creative "Computational Entrepreneurship Portfolio" (Physical file or Digital PDF) containing:

The Deconstructed Market Table/Mind Map.

Survey Data Visualization: pie charts or bar graphs highlighting the identified patterns.

The Customer Persona Sheet (minimum 30 respondents).

The Algorithmic Flowchart (Hand-drawn or digital).

**PRACTICE ASSIGNMENT**

1. State any two factors while assessing the market. 2
2. Harish, after finishing his degree wanted to start his own business. He was confused as to the kind of business he should start. He attended a start-up session. One of the speakers stated that 'Creativity can be used to spot and harness opportunities, as well as be applied to develop new products and services'. State any four ways in which creative ideas can be generated. 2
3. Saurabh wants to start a new business. He is not sure of the type of business he should start. His friend suggested him to seek the help of professionals. He contacted a professional who asked Saurabh to pay a big amount for providing the reports and industry updates. Therefore he decided to search for the reports and industry updates himself. He scanned the relevant information from various national and international websites.  
Identify and state the way that Saurabh is using for spotting the trend. Also state one more way which will help Saurabh in starting his business.
4. Give the meaning of 'Problem identification'. With the help of any two points, state how problem identification helps the entrepreneur. 2
5. Explain 'Proforma investment decisions' and 'Proforma financing decisions' as components of a financial plan. 3
6. As a chemistry enthusiast, Athavan was always very innovative and wanted to try out new things. He had an idea of making a new stain remover which will help in removing stains very fast from clothes. He did a market research to find out the various stain removers available in the market to foresee the future of the product in the market. Which step of the creative process is he following? Identify and name it. Also state the next two steps of the creative process. 3
7. One of the important methods for generating ideas is to carry out a 'Market research'.
  - i. What is meant by 'Market research'?
  - ii. Explain how market research helps an entrepreneur for generating 'Market –driven or Demand- driven ideas' as a source of Idea field. 3
8. This concept is an identifying symbol for any product or business. It can be any distinctive design, mark, sign which stands associated with the enterprise. Enlist any three purpose of this concept. 3
9. Kartik works as production analyst at 'Shree Tyres'. During the board meeting for the financial year 2022 – 23, the target production of tyres for the year was decided at 6 lakh units. The Managing Director of the company asked Kartik to prepare a blueprint in advance and 'work your plan'. He also added that this blueprint will ensure orderly flow of materials in the manufacturing process from the beginning to the end. Identify and explain the component of 'Business Plan' being discussed by the Managing Director. 3
10. Subeer, a tech-entrepreneur and his friend Harish, an investment banker planned to start a business organization where they can exercise control over the business, manage it with limited liability and that its continuity is not affected by entry or exit of members. They intend to maintain the confidentiality of the business operations as well. Identify the form of business organization best suited for them and give any five privileges to choose such form of business organization. 5
11. 'Preparing a good business plan can't guarantee success, but it can go a long way towards reducing the odds of failure.' Justify this statement by giving any five points. 5