



### Activity 1: Decode & Design – The Balanced Life Escape

#### Format: Multi-puzzle escape + rapid design challenge

**Theme:** Crack two short puzzles (vitamins and hygiene) to reveal keywords that unlock a mini design brief.

Use those to ideate a quick prototype addressing Unit I themes.

**Group size:** 4–6 per team | **Time:** 30–35 minutes (15 for puzzles, 10 for prototype, 5 for share-out)

#### Learning Objectives

- Reinforce nutrition/vitamin fundamentals and personal hygiene sequencing.
- Link decoded keywords to the Design Thinking mindset.
- Practice rapid problem framing and paper prototyping.

#### Materials

- Printed Puzzle Sheet B1 (Vitamins) and Puzzle Sheet B2 (Hygiene) – one set per team.
- A5 blank paper, sketch pens/markers, tape.
- Timer/phone.

#### Facilitation Flow (Step-by-Step)

1. Give each team Puzzle Sheet B1 and Puzzle Sheet B2 face-down. Start a 12–15 minute timer.
2. Teams solve B1 (Vitamin Vault) to derive Keyword 1
3. Teams solve B2 (Hygiene Sequence) to derive Keyword 2.
4. When both keywords are found, teams flip the Design Brief Card (below) and spend 8–10 minutes creating a paper prototype (poster, flow, storyboard, or mockup).
5. Each team does a 60–90 second show-and-tell focused on user, HMW, and prototype.

#### Puzzle Sheet B1 – Vitamin Vault (CREATE Code)

Instructions: Match each symptom to the correct vitamin. Then, write down the first letter of each vitamin in the same order as the numbered symptoms. You'll get a 6-letter keyword.

Symptom (write the vitamin)	Your Answer (Vitamin)
1) Bleeding gums, poor wound healing → _____	
2) Cracks at mouth corners (angular stomatitis), glossitis → _____	
3) Hemolytic anemia in preterm infants, fat malabsorption → _____	
4) Night blindness, xerophthalmia → _____	
5) Neuropathy/beriberi (wet/dry) → _____	
6) Fragile RBC membranes; neuromuscular problems in infants → _____	

Vitamin bank (use each as needed): Vitamin C, Riboflavin (B2), Vitamin E, Vitamin A, Thiamine (B1), Vitamin E

*After matching, take the first letters of your six vitamins (in order). That 6-letter word is Keyword 1. (Hint: A design verb!)*

**Optional Numeric Lock (if you want a number code)**

Convert the letters of Keyword 1 to numbers (A1Z26) and add them to get a two-digit code.

**Puzzle Sheet B2 – Hygiene Sequence (EMPATHY Code)**

Instructions: Arrange the following steps of effective hand hygiene in the correct order (1 to 7). Then use the Decoder Table to translate step numbers into letters to reveal Keyword 2.

Step (reorder to 1–7)	Order #
Wet hands thoroughly with clean water.	
Apply soap to cover all hand surfaces.	
Rub palms and backs; interlace fingers thoroughly.	
Clean thumbs and fingertips (rotational rubbing).	
Rinse well under running water.	
Dry hands completely with a clean towel/air-dry.	
Turn off tap using towel/forearm (avoid re-contamination).	

Decoder Table:	1	2	3	4	5	6	7
	E	M	P	A	T	H	Y

*After decoding, the 7 letters (in order 1→7) form Keyword 2. (Hint: A design mindset word!)*

**Flip-When-Unlocked: Design Brief Card**

Combine your two keywords into a phrase (e.g., “CREATE EMPATHY”). Then respond to this brief:

- Persona: A first-time parent in a peri-urban settlement with intermittent water supply and limited income.
- Challenge: Reduce diarrheal episodes in children <5 years in the next 3 months without increasing monthly expenses.
- Constraints: Leverage nutrition education, hygiene nudges, and community resources; solution must be low-cost and culturally acceptable.

**Deliverable (8–10 min):**

- A How Might We statement.
- A paper prototype (poster, SMS flow, sticker set, reminder card, or simple gadget).
- 1–2 metrics/indicators you will track (e.g., handwashing compliance, diarrhea incidence).

### Debrief Prompts (Connect to Design Thinking Phases)

- Empathize: What did the keywords suggest about your priorities?
- Define: State your Problem Statement in one sentence.
- Ideate: What wild ideas came up that are still low-cost?
- Prototype/Test: What is your first field test and success criterion next week?

### Answer Keys – Activity 2

#### **B1 Vitamin Vault (Keyword 1): C, R, E, A, T, E → CREATE**

- 1) Scurvy → Vitamin C
- 2) Angular stomatitis/glossitis → Riboflavin (B2)
- 3) Hemolytic anemia in preterm infants / fat malabsorption → Vitamin E
- 4) Night blindness/xerophthalmia → Vitamin A
- 5) Neuropathy/beriberi → Thiamine (B1)
- 6) Neuromuscular problems in infants → Vitamin E

**B2 Hygiene Sequence (Keyword 2): Correct order is 1→2→3→4→5→6→7. Using the decoder (1: E, 2:M, 3:P, 4:A, 5:T, 6:H, 7:Y), the keyword is EMPATHY.**