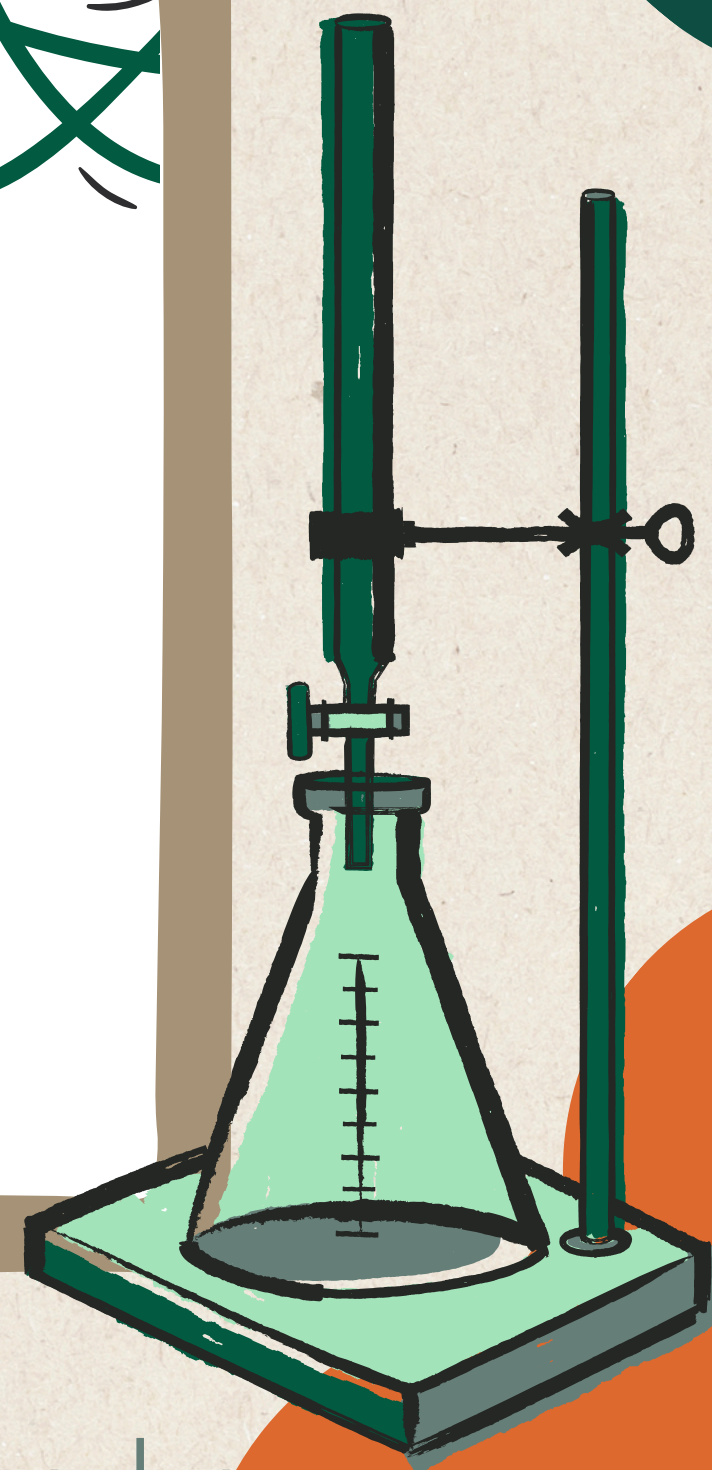
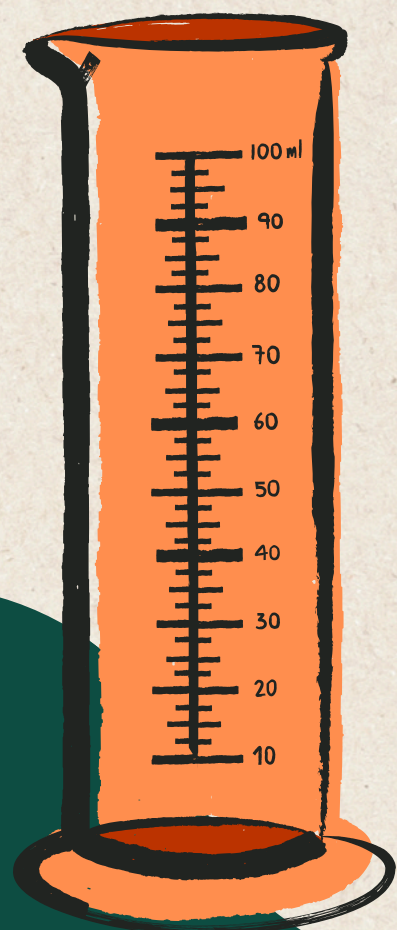
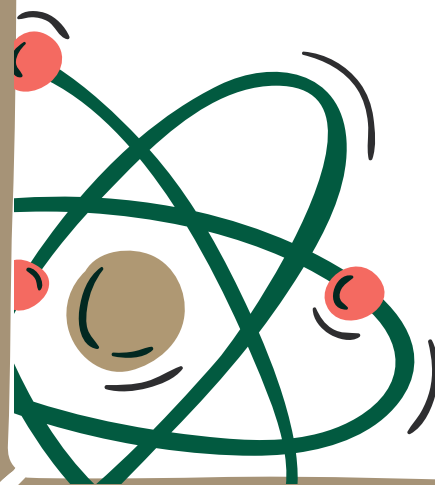
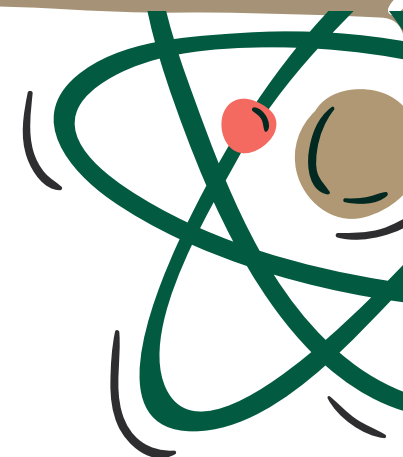


CIMAT

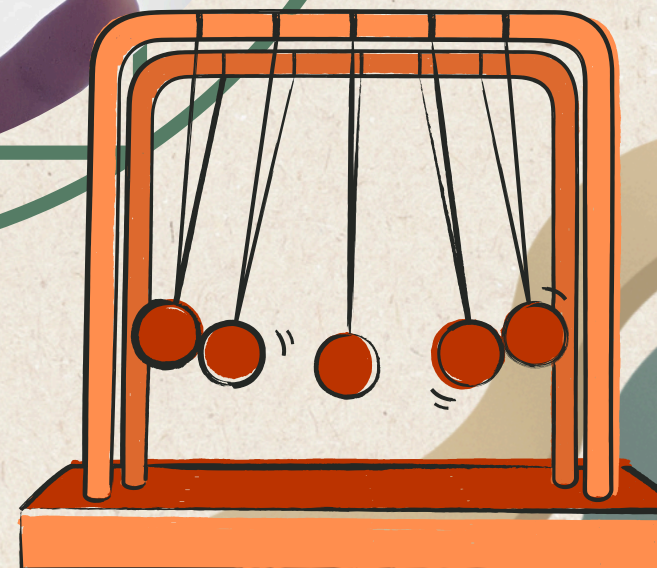
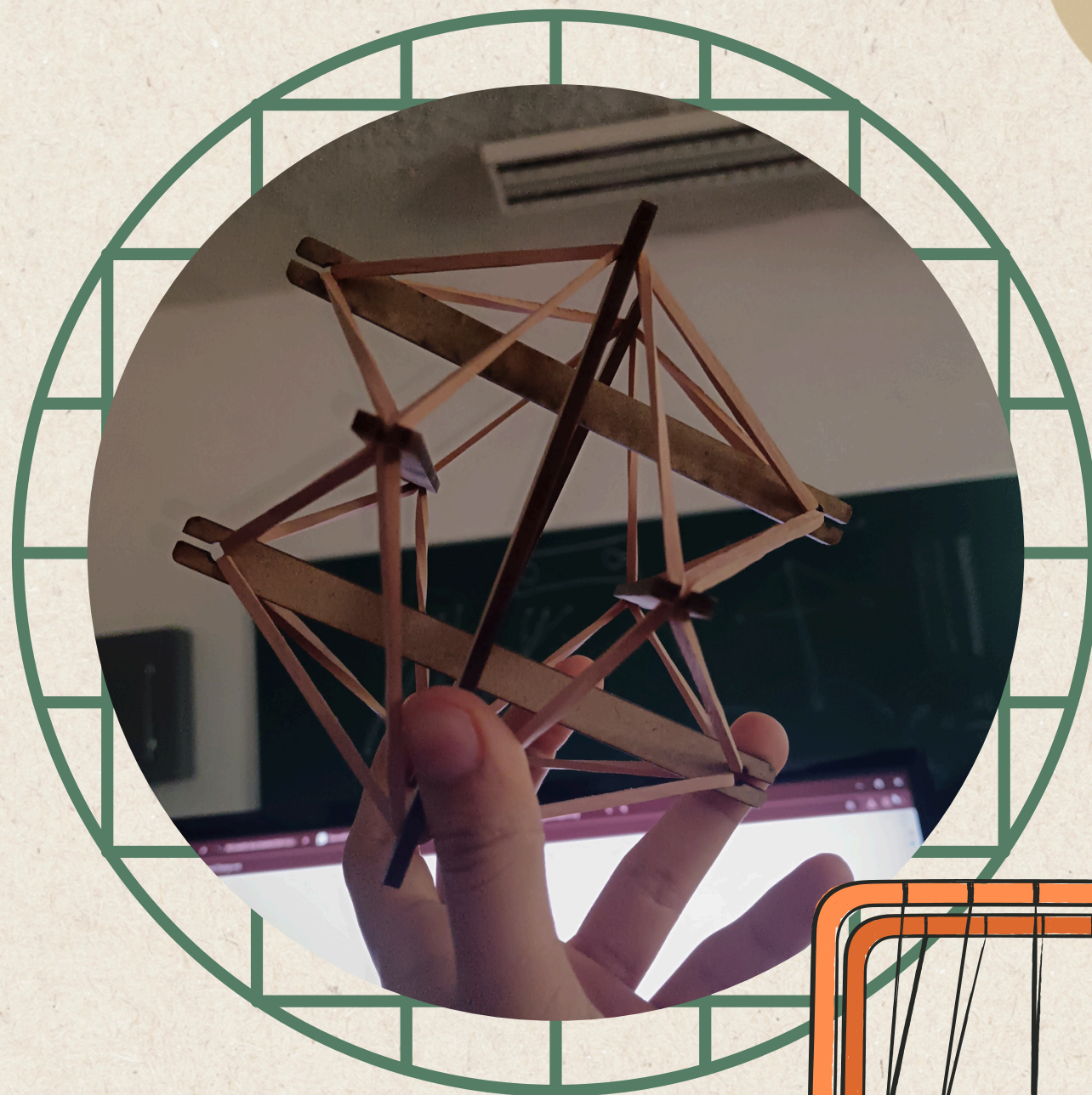
TALLER DE CIENCIA
PARA JÓVENES

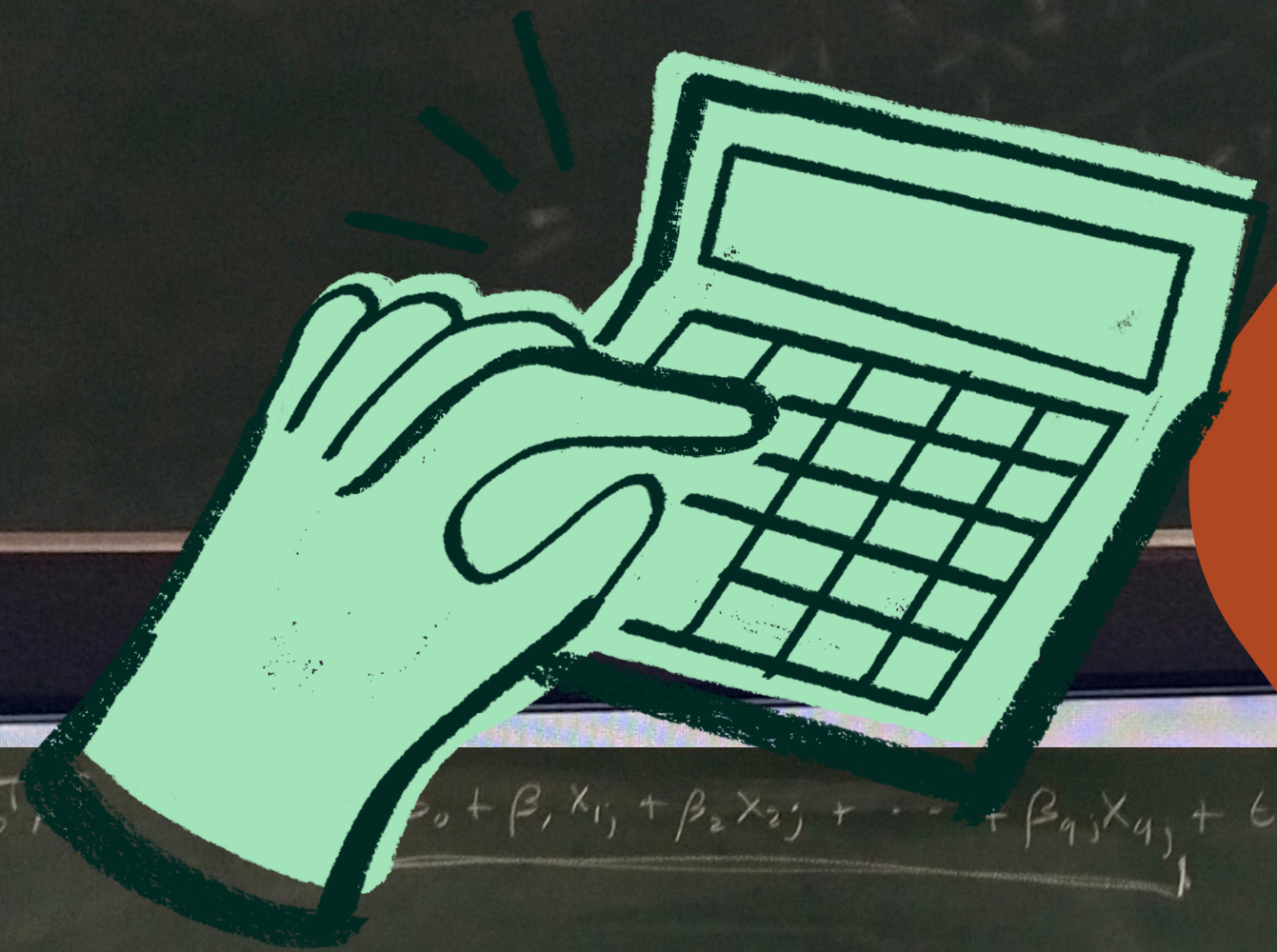




1

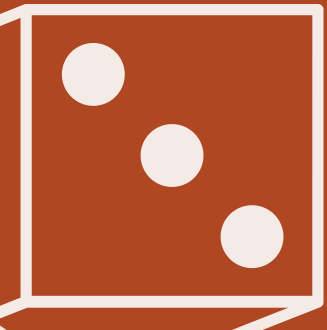
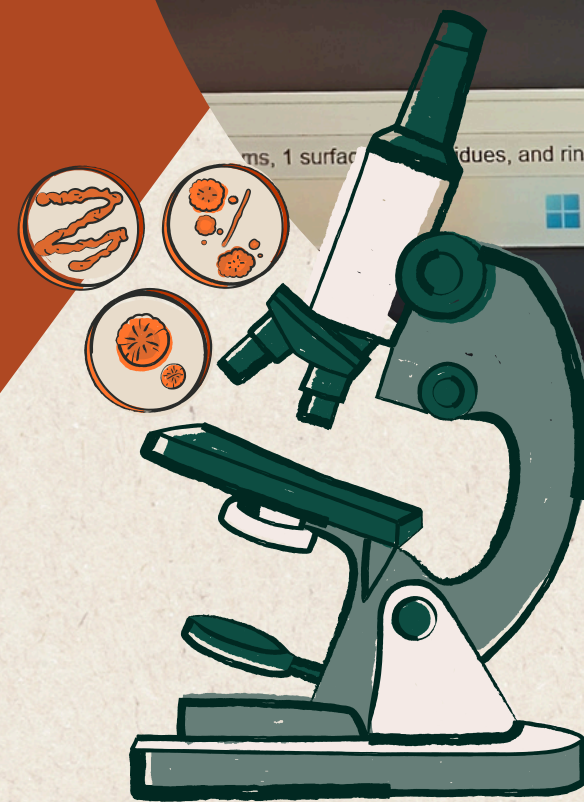
MATEMÁTICAS





LA ESTADÍSTICA.

$$\begin{aligned} & \sum_{j=1}^n (y_j - (\beta_0 + \beta_1 x_{1j} + \dots + \beta_q x_{qj}))^2 = (Y - \hat{Y})^T (Y - \hat{Y}) \\ & = (Y - X\beta)^T (Y - X\beta) \\ & = (Y^T - (X\beta)^T) (Y - X\beta) = YY^T - Y^T X\beta - (X\beta)^T Y + (X\beta)^T X\beta \end{aligned}$$



EXPERIMENTO



A collage of 15 hand-drawn mathematical diagrams and formulas:

- $$X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a + 3b}$$
- $$m = \frac{a+b}{2}$$
- A right-angled triangle with vertices A, B, and C, where C is the right angle. The equation $A^2 + B^2 = C^2$ is written next to it.
- A coordinate system showing a dashed rectangle with width 'a' and height 'b'.
- A coordinate system with an arrow pointing into the first quadrant.
- A sine wave plotted on a coordinate system with x and y axes.
- The quadratic equation $x^2 - 6x + 8 = 0$.
- The differential equation $\frac{d^2y}{dx^2} = \frac{d}{dx} \left(\frac{dy}{dx} \right)$.
- A cylinder with a shaded top circular face and a vertical height labeled 'A'.
- The equation $\epsilon = m^2$.
- A right-angled triangle with sides 'a' and 'b', and hypotenuse 'a+b'. The angle between sides 'a' and 'b' is labeled 90° . The expression $\sqrt{32}$ is written below it.
- A graph of a function $y = f(x)$ on a coordinate system, with a shaded area under the curve.
- The equation $ax + bx + c = 0$.

MINI TALLERES

1

TOPOLOGÍA

2

ROBOTICA

3

JUEGOS MATEMÁTICOS

MINI TALLERES

4 OPTICA

5 HILORAMAS

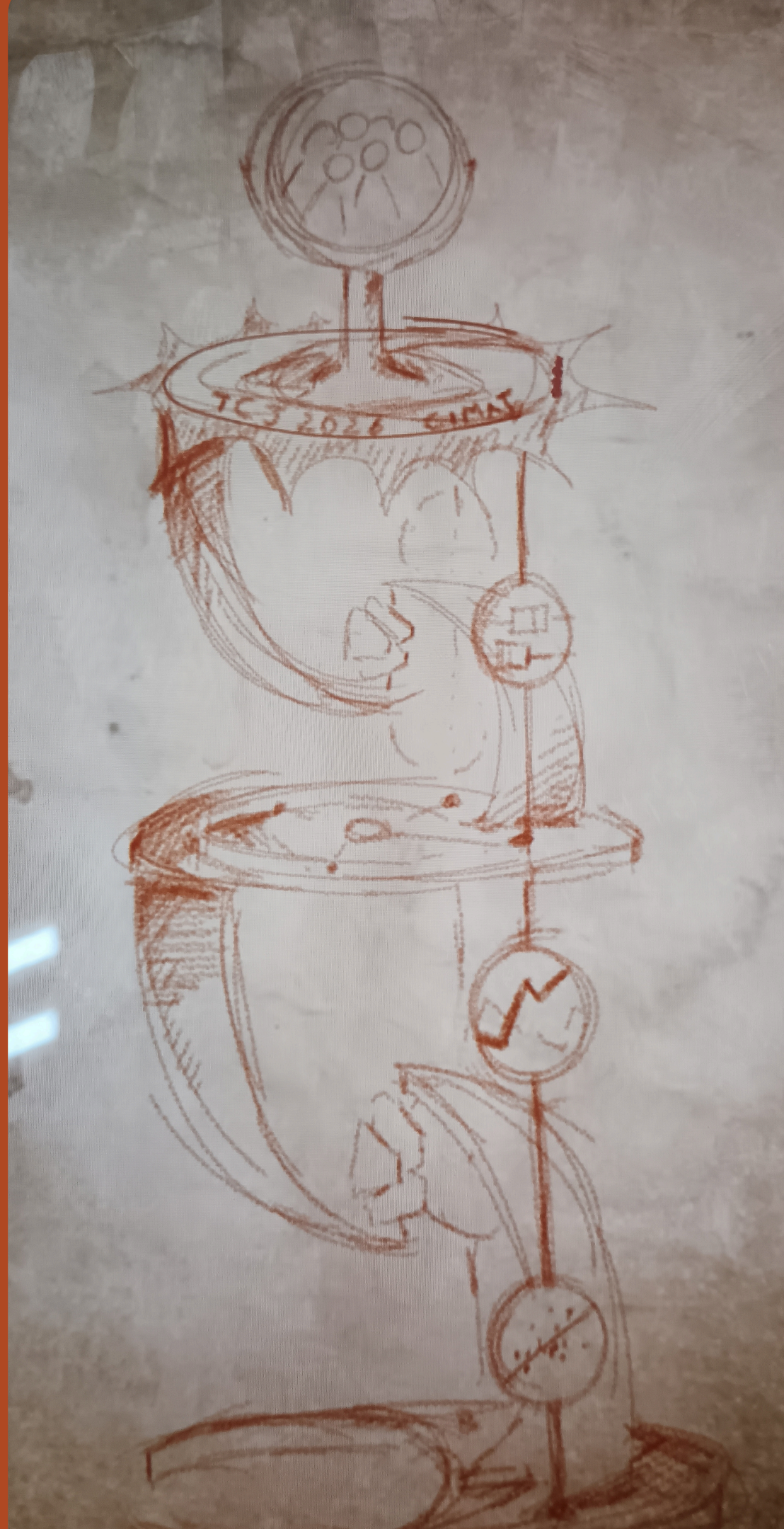
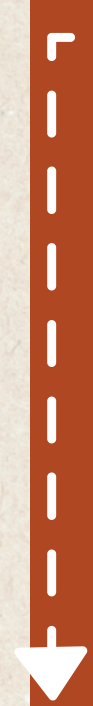
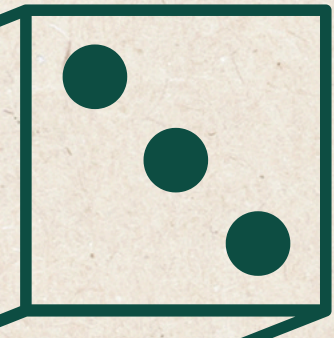
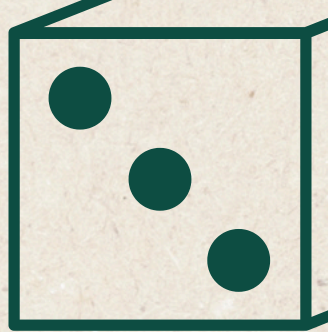
6 MÚSICA

CINVESTAV



NUESTRO APRENDIZAJE





NUESTRA EXPERIENCIA





TIEMPO DE RECUERDOS



MUCHAS GRACIAS

CIMAT

