

Science Lab



2



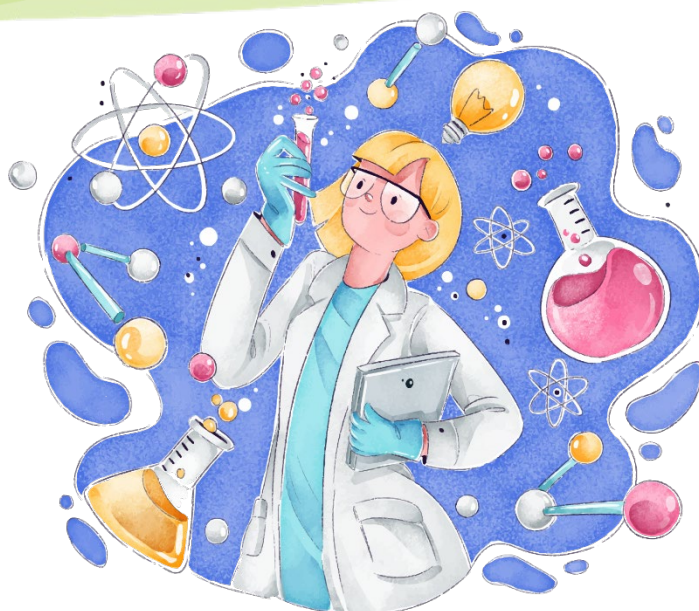
8. Spectroscope

- Topic:** Decomposition of white light in different colours
- Objective:** Students will observe that not-all-light sources are the same, the secret lies in its spectrum: the colours that compose from it.
- Vocabulary:** spectroscope, spectrum, compose, decomposition
- Materials:** 1 cardboard box (cereal type)
1 old CD or DVD
1 cutter or scissors
1 protractor
Opaque adhesive tape
Different sources of light: incandescent bulb, low consumption, halogen, colored lanterns, LED, etc.
1 ruler
1 pencil or pen

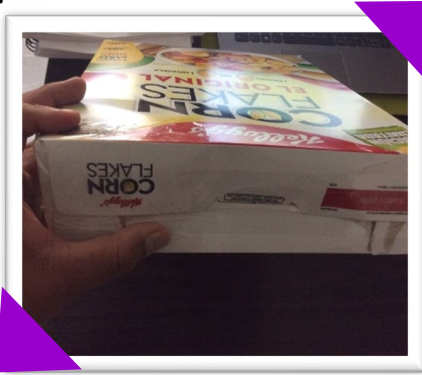
Development:

- **Read and look at the pictures.**

- Step 1.** Close the box and its openings well with the adhesive tape - avoid slots.
- Step 2.** Draw a 4-cm square that will work as the viewing window – cut it out.
- Step 3.** Draw two 9-cm lines (60°) – one on each side – just right below the viewing window.
- Step 4.** Cut the lines – all the way side to side and slot in the CD.
- Step 5.** Opposite side, at about 7 cm from the top, draw a 1-cm square and cut it out.
- Step 6.** Test your spectroscope by looking at different sources of light.
- Step 7.** What colours can you see? What forms do they take? Are the colours still? Do they look like moving?



Step 1.



Step 2.



Step 3.



Step 4.



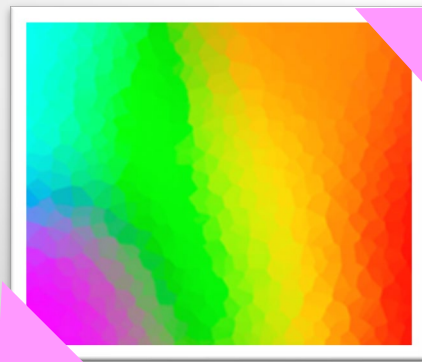
Step 5.



Step 6.



Step 7.



FLAKES
DECLARACIÓN NUTRIMENTAL

	100 g	300 g
CONTENIDO ENERGÉTICO 367 kcal (1580 kJ)		
PROTEÍNAS (g)	6	18
GRASAS TOTALES (g)	0,2	0,6
GRASAS SATURADAS (g)	0,2	0,6
GRASAS TRANS (g)	0	0
HIDRATOS DE CARBONO (g)	85	255
AZÚCARES (g)	0	0
AZÚCARES AÑADIDOS (g)	0	0
FIBRA DIETÉTICA (g)	1,5	4,5
SODIO (mg)	340	1020
CONTENIDO ENERGÉTICO TOTAL DEL ENVASE 1 817 kcal (7 722 kJ)		
INGREDIENTES: Maíz, arroz, almidón (patata), leche, sal, azúcar, vitaminas B1, B2, B6, B12, niacina, ácido fólico, vitamina D, vitamina E, vitamina B12, vitamina D.		

Tell us...

Read and write YES or NO.

1. The experiment showed that all the light sources are the same. _____
2. All the colours of the rainbow are called spectrums. _____
3. White light is made by the combination of all the colours. _____
4. You could observe all the colours you know in the experiment. _____
5. Highlighters were needed for this experiment. _____

Glue a picture of your project finished!

Spectroscope

Glue your
picture here
:)

1. What was your favourite part of the project? _____.

2. What, exactly, did you like the most?
_____.

3. Extra notes on what you observed during the project. _____

_____.

4. Can you see or apply the information from the project in real life? YES / NO
Explain: _____
_____.

5. Was it easy to get the materials for the project? YES / NO
Explain: _____
_____.