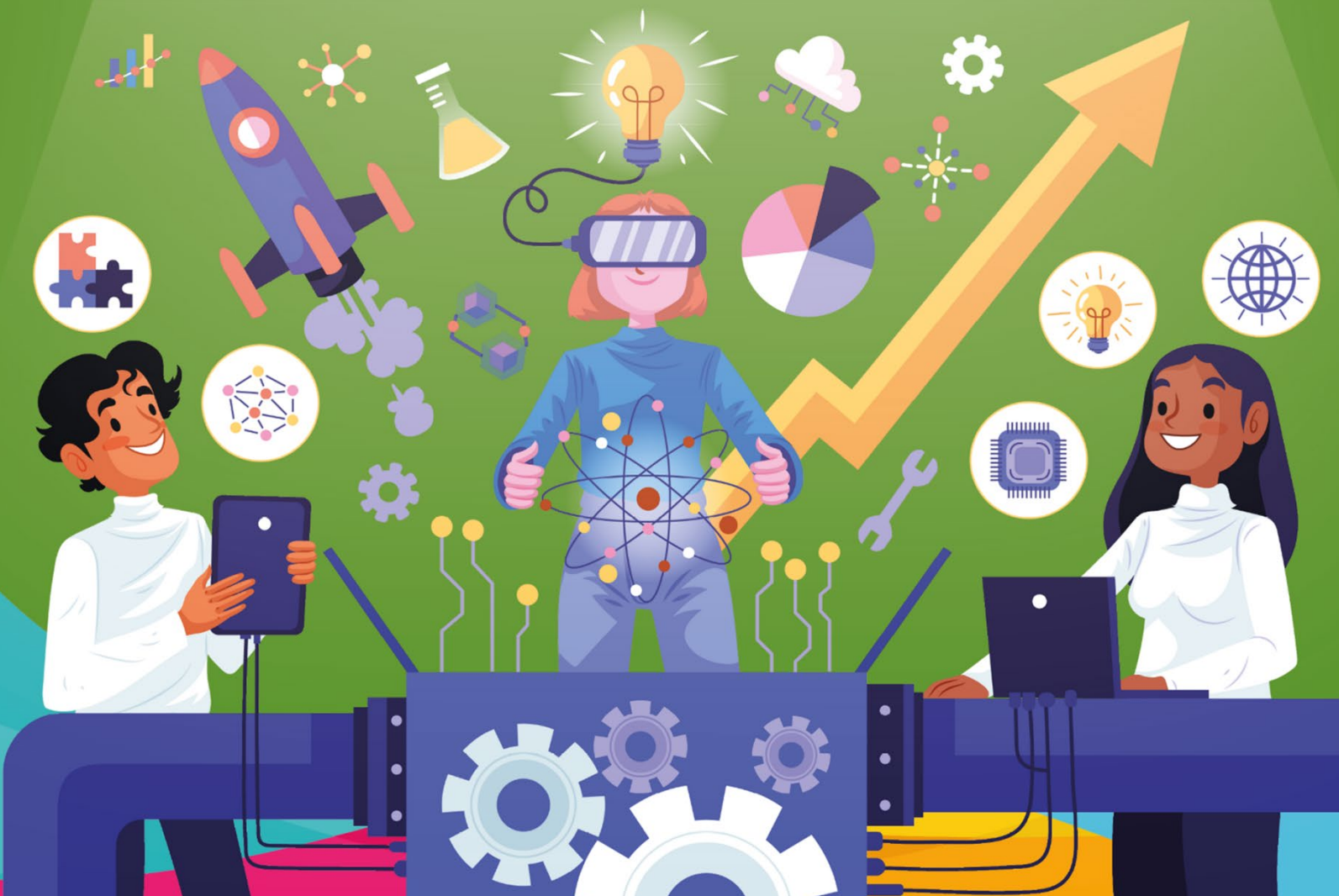




# Science Lab

# 6



## 4. Solar oven

**Topic:** Heat energy

**Objective:** Students will learn about how heat energy works in everyday life, ways to generate heat that is needed for fire and ways to get mild-heat like in a conventional oven.

**Vocabulary:** heat, generate, acetate, oven

**Materials:**

- A 2-part box
- Aluminum foil
- Duct tape (gray)
- 1 cutter(s) or scissors.
- 1 Marker
- 1 sheet of black cardboard
- 1 acetate sheet (plastic can also work)
- 1 ruler
- 1 wooden stick
- Brownies, cookies, chocolates, marshmallows, etc.

### Development:

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

- Step 1.** Open the box and cover the entire interior with aluminum foil without leaving an empty space. Fix the aluminum foil with the tape around the corners to prevent it from moving.
- Step 2.** Using the marker and the ruler, mark a square on the lid leaving a 3-cm distance.
- Step 3.** Cut the square without breaking the walls of the box and leave a long side uncut so that it can be folded.
- Step 4.** Once the part that you have not cut has been folded, place the acetate in the box that is inside and fix it with tape.
- Step 5.** Cover the open lid with aluminum foil only on the inside so that sun rays bounce off the acetate.
- Step 6.** Place the sheet of black cardboard inside the box.
- Step 7.** Put the oven at a place where energy from the sun can be gotten.
- Step 8.** Place some food on a plate inside the box and use the stick to keep the lid open. After some minutes, get the food out and explain what happened.

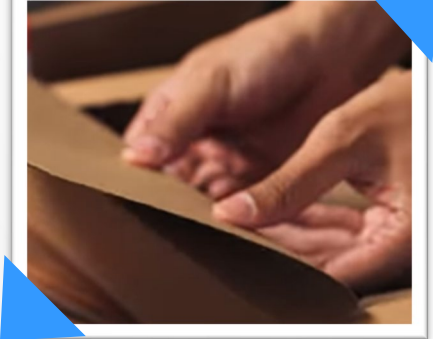
Step 1.



Step 2.



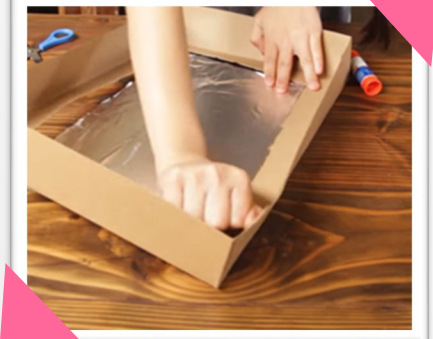
Step 3.



Step 4.



Step 5.



Step 6.



Step 7.



Step 8.



Tell us...

Read and choose a response for each question.

Example



What do you do?

A I am happy.

B I am a student.

C I am going home.

1. Are you hungry?

A I am great!

B Yes, I am.

C Yeah, why not.

2. Do we have to cut out a square?

A I need.

B I agree.

C Let me think!

3. Can you ask the teacher what the next step is?

A I want to know.

B Of course!

C It's alright!

4. Did you like the experiment?

A Wasn't my like.

B Just a little, why?

C Doesn't be!

5. We are on the same team!

A You too.

B What about Anna?

C That's awesome!



Glue a picture of your project finished!

Solar oven

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: \_\_\_\_\_  
\_\_\_\_\_.

