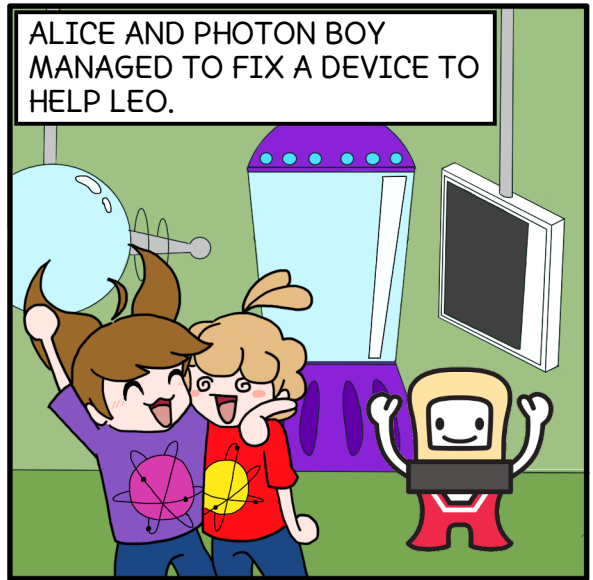


LEO, ALICE AND THE UNEXPECTED X-RAY EVENT

EPISODE 2



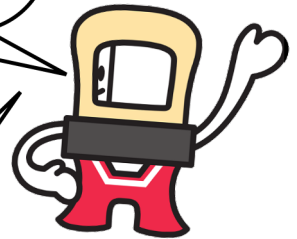
THEY BUILT A MACHINE TO... GET X-RAYS!

THANKS TO X-RAYS, WE CAN DISTINGUISH LIGHT FROM HEAVY MATTER.

IN MEDICINE, WE ARE THEN ABLE TO SEE OUR BONES, EVEN THOUGH THEY ARE INSIDE OUR BODY.

TO CARRY OUT OUR EXPERIMENT, WE NEED A SPECIAL LIGHT TO ILLUMINATE THE BODY WE WANT TO STUDY.

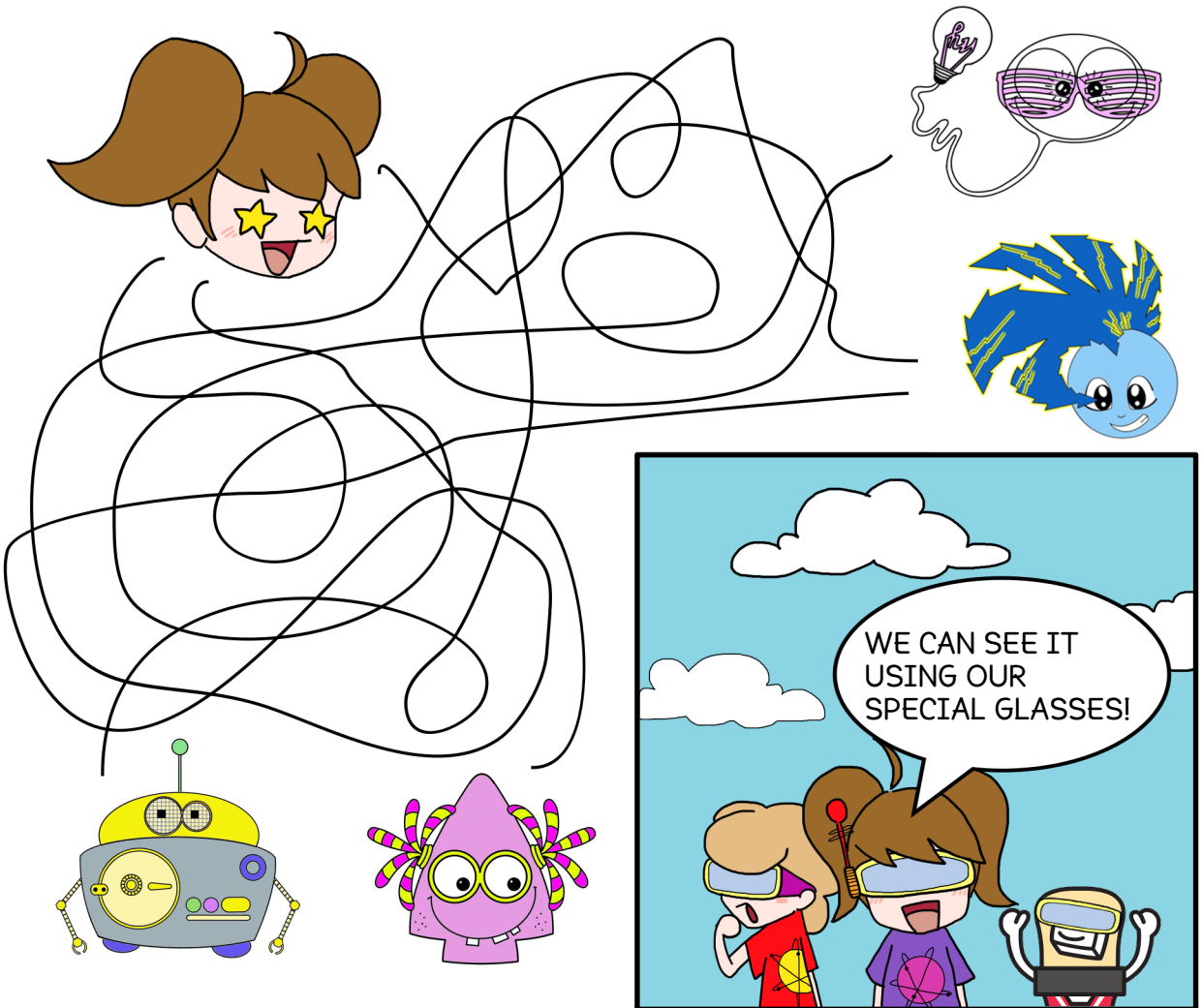
THEN, THANKS TO A SPECIAL CAMERA, THAT IS CALLED DETECTOR BY THE SCIENTISTS, WE CAN SEE HOW MANY AND WHICH RAYS HAVE PASSED THROUGH THE BODY AND WHICH HAVE NOT.

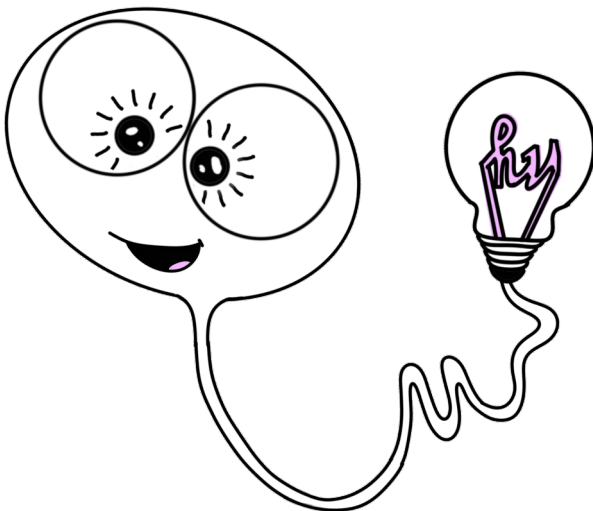
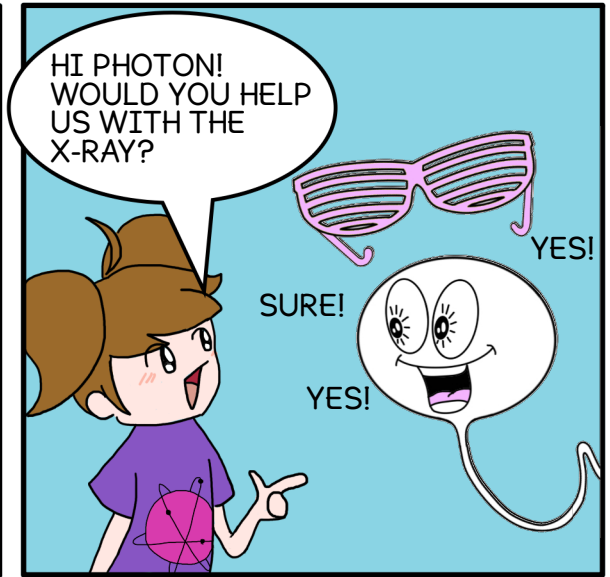
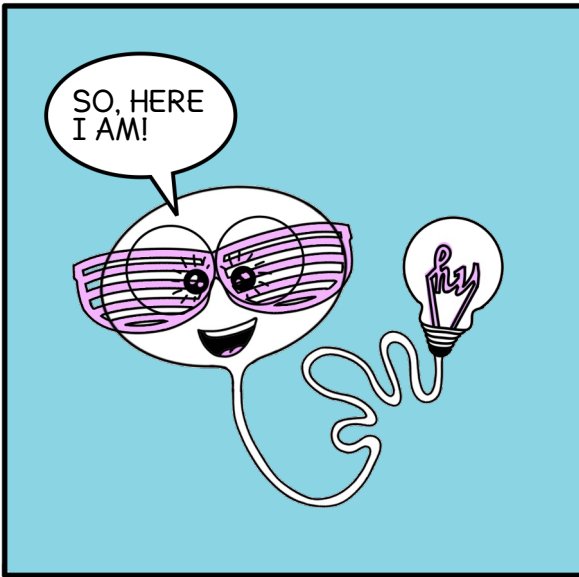


THEREFORE, AN X-RAY MACHINE CONSISTS OF A LIGHT SOURCE, THAT IS OUR SPECIAL LIGHT, AN OBJECT, AS THE BODY INVOLVED IN OUR RESEARCH, AND A DETECTOR.

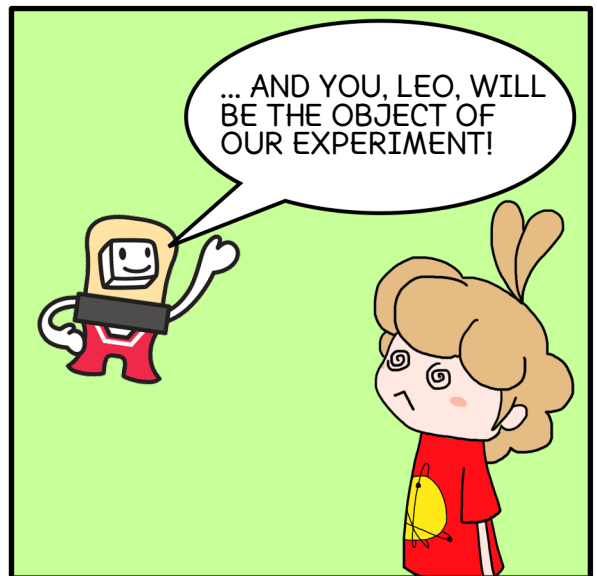
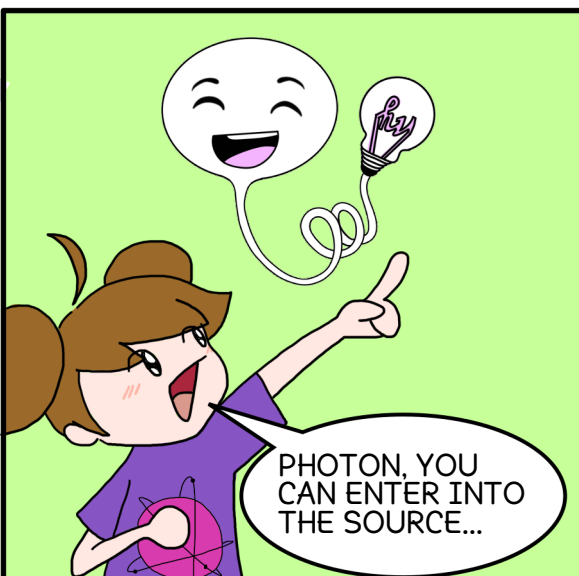


WHICH IDEA HAS JUST COME UP TO ALICE'S MIND?
LET'S DISCOVER THE CORRECT WAY TO FIND OUT!



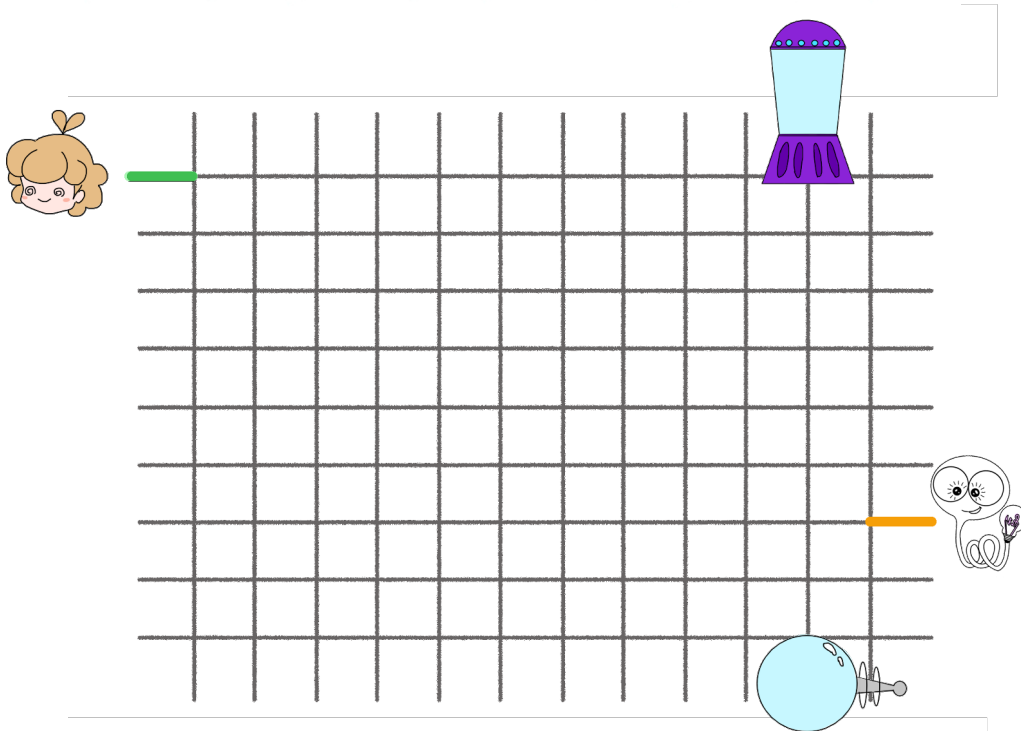


WE AS PHOTONS CAN HAVE MANY DIFFERENT ENERGIES. SOME OF US HAVE THE ENERGY OF THE LIGHT, WHICH IS THE ONE WE CAN SEE WITH OUR EYES. OTHERS, LIKE ME IN THIS MOMENT, HAVE MUCH BIGGER ENERGY. WE ARE CALLED X-RAYS AND HAVE AMAZING PROPERTIES, EVEN THOUGH YOU CANNOT SPOT US. FOR EXAMPLE, WE CAN "TRAVEL" INSIDE THE MATTER.

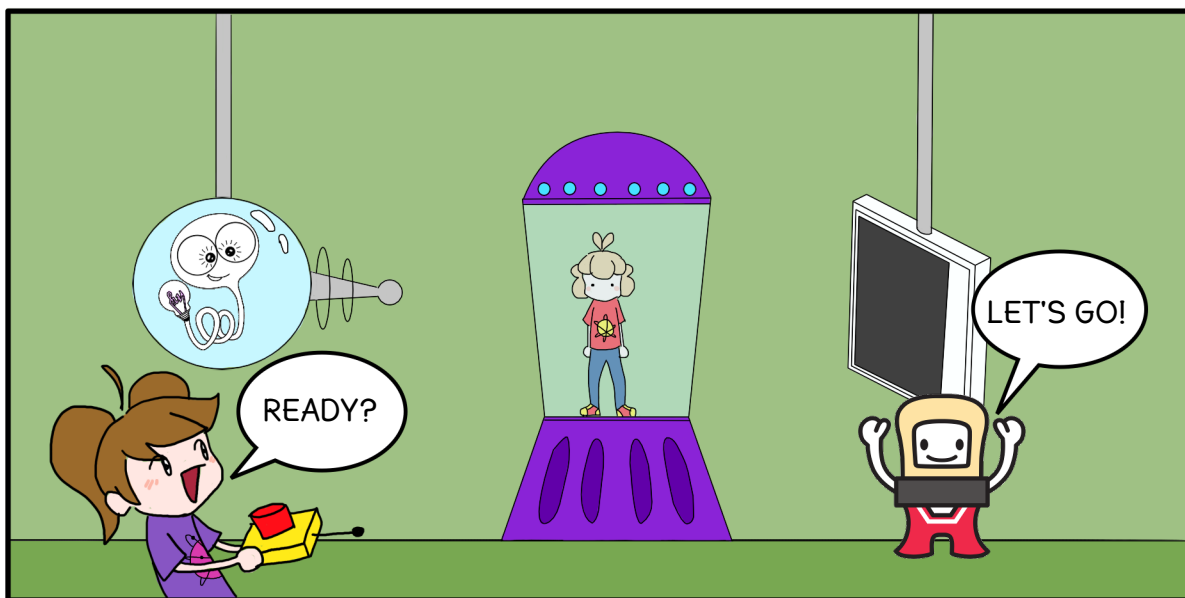


LET'S GUIDE LEO AND PHOTON TO THEIR POSITION.
 AS FOR LEO, FOLLOW THE GREEN ARROWS (FROM LEFT TO RIGHT), WHILE FOR PHOTON FOLLOW THE YELLOW ONES (FROM RIGHT TO LEFT).

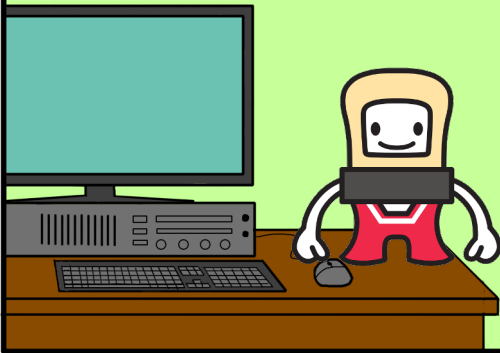
2 → 2 ↓ 3 → 1 ↓ 2 → 2 ↑ 2 → 1 ↑ 1 →



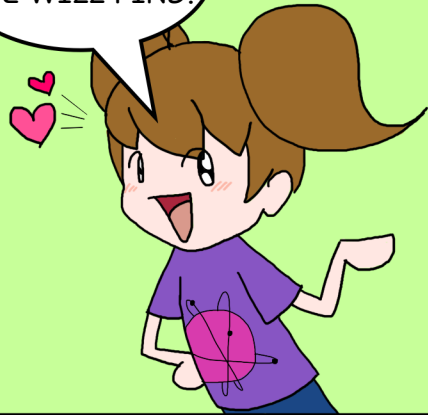
→ 2 ↓ 1 → 7 ↓ 1 ← 3 ↓ 1 ← 3 ↓ 1 ← 4 ↑ 2



THANKS TO THE PC, WE CAN GATHER THE ELECTRICAL SIGNALS COMING FROM THE DETECTOR AND HAVE ALL THE INFORMATION DISPLAYED.



LET'S WAIT AND SEE WHAT WE WILL FIND!



LEO IS READY FOR X-RAY!
LET'S SOLVE THE CODING GAME BELOW, COLOUR THE SQUARES AND YOU WILL DISCOVER WHAT OUR FRIENDS WILL GET.

COLOURS LEGEND:

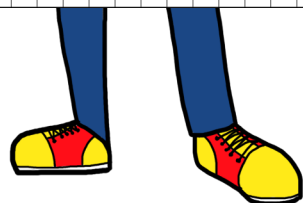
- a purple
- b yellow
- c black

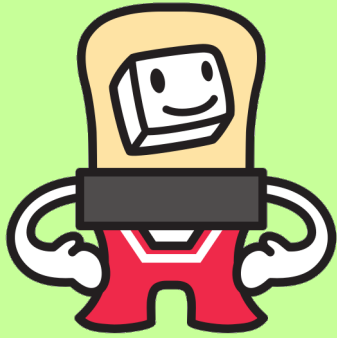
INSTRUCTIONS:

- A: 17a
- B: 1a - 4b - 2a - 1b - 1a - 1b - 2a - 4b - 1a
- C: 8a - 1b - 8a
- D: 4c - 1a - 7b - 1a - 4c
- E: 4c - 4a - 1b - 4a - 4c
- F: 4c - 1a - 7b - 1a - 4c
- G: 4c - 4a - 1b - 4a - 4c
- H: 4c - 1a - 7b - 1a - 4c
- I: 4c - 4a - 1b - 4a - 4c
- L: 4c - 3a - 1b - 1a - 1b - 3a - 4c
- M: 4c - 9a - 4c
- N: 4c - 1a - 2b - 1a - 1b - 1a - 2b - 1a - 4c
- O: 4c - 1a - 1b - 1a - 1b - 1a - 1b - 1a - 1b - 1a - 4c
- P: 4c - 2a - 1b - 1a - 1b - 1a - 1b - 2a - 4c
- Q: 4c - 4a - 1c - 4a - 4c
- R: 4c - 2a - 1b - 1a - 1c - 1a - 1b - 2a - 4c
- S: 4c - 2a - 1b - 1a - 1c - 1a - 1b - 2a - 4c
- T: 4c - 2a - 1b - 1a - 1c - 1a - 1b - 2a - 4c
- U: 4c - 2a - 1b - 1a - 1c - 1a - 1b - 2a - 4c

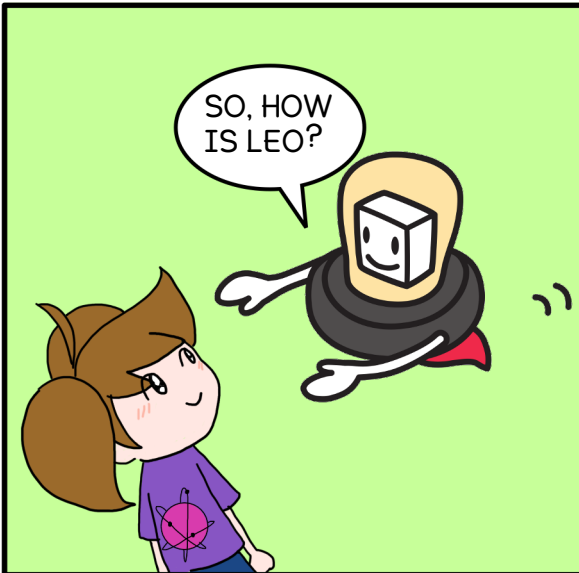


A	
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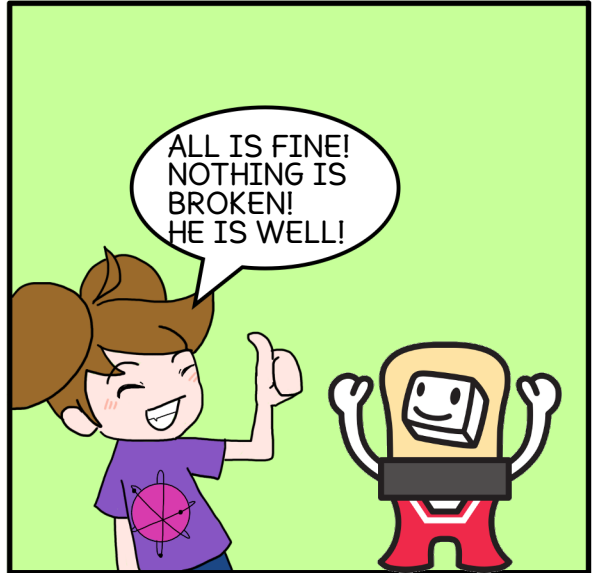




X-RAYS COMING FROM THE SOURCE ILLUMINATE THE OBJECT: THANKS TO THEIR STRONG ENERGY, THEY CAN PASS THROUGH LIGHT MATTER, LIKE OUR SKIN AND MUSCLES, WHILE THEY ARE ABSORBED BY HEAVY MATTER LIKE THE BONES. THIS IS WHY THROUGH THE X-RAYS WE ARE ABLE TO SEE ALL LEO'S BONES!



SO, HOW IS LEO?



ALL IS FINE! NOTHING IS BROKEN! HE IS WELL!



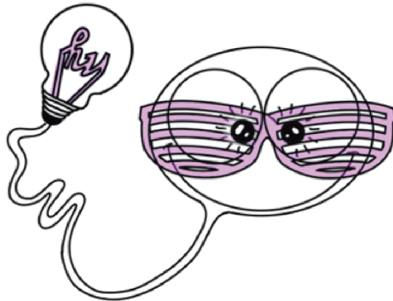
HURRAY!

OUR FRIENDS' ADVENTURE IS OVER: WE LEARNED TOGETHER HOW TO CARRY OUT AN X-RAY. SEE YOU SOON ON THE NEXT GREAT DISCOVERY!

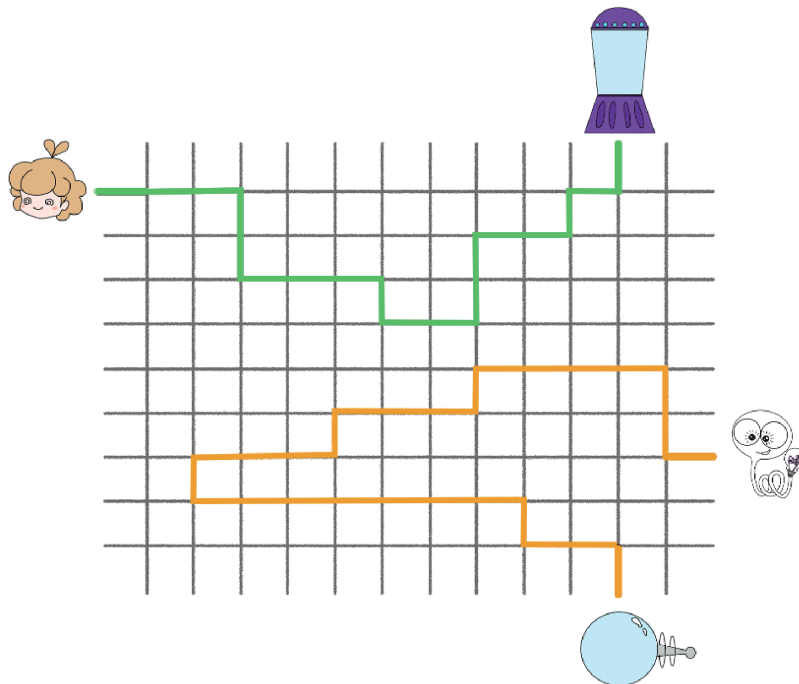
THE END

Solved puzzles

(1) Discovering the correct way to find out which the idea of Alice is



(2) Guiding Leo and Photon to their position



(3) Solving the coding to find out the output of X-ray

