

The Secrets of the Mulberry Bush

The
Meta-
bolic
Gang



More information about the diseases covered in this book:
www.guiametabolica.org

The Metabolical Gang Collection

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The Secrets of the Mulberry Bush



Annie, Arnau and Gabriel went into the classroom hanging their heads. There was an exam that day and the teacher didn't fool around. She had told them that they had to work or they would fail the year. She said that they had bad habits and that in life, you work hard or you get nothing.

On the other hand, the children from the other class were very happy. Everyone had good grades except Yuri, who was new to the Mulberry Bush School and had just arrived from Ukraine. He understood next to nothing.

"What did you get?" Gabriel asked Arnau, some days later. "I got a seven."

"A six and a half."

"Well, that's good!" exclaimed Annie, who had passed by the skin of her teeth.



The one who had really done badly was Susi, the new girl in the class. She never did homework, she never talked to anyone, and if she ever did, it was to say something nasty. Annie tried to be her friend, but Susi was so hostile that Annie got tired of her.

"Heck, what a strange girl!" Annie said to her father while she helped to prepare the spinach cannelloni for supper.

"Surely she is like that for a reason," her father answered.

"Yeah, because she was born on Neptune and not on planet Earth!"

So, the next day, once more, Annie invited Susi to come with her and her friends. But once again, the girl pulled a sour face and turned her back.



“Maybe she is missing her old school,” Arnau said.

“What is wrong with her is that she is crazy!” said Gabriel. “Yesterday a guy left his rucksack on her desk for a minute and Susi threw it on the floor and stamped on it.”

“She’s not crazy. You guys don’t like her, that’s why she acts that way.”

It was the first time that Arnau and Gabriel had disagreed. Annie started laughing.

“I think somebody likes Susi...”

Arnau turned as red as a tomato and decided to watch what he said in front of Annie.

But the subject of Susi was put on the back burner because the mystery of the other class was starting to be a problem. The good grades continued and even Yuri had started to do well. Gabriel was losing patience.

“Something strange is going on here. It’s not possible for Yuri to get better grades than us. He doesn’t know anything!” he exclaimed as he arrived at the Mulberry Bush square to have his snack.

“It’s true, it’s as if our class was the dummy group!” said Arnau.

Laura, who was one class lower, joined the conversation while she devoured some apple fritters.

“I think they know the questions,” she said glibly.

The others turned to face her and Arnau exclaimed:

“Of course! That explains it... But where do they get them from?”

Laura, seeing the attention that her older friends were giving her, gave a daring answer that generated even more expectation.

“Without a doubt: they steal them.”



The four of them talked about it for a good long while. How could they steal the exams? Normally they were in the teachers' room where there was always someone or the room was locked.

Gabriel was convinced.

"We have to investigate this. Our honour is at stake."

"The Metabolical Gang strikes again," added Arnau.

"Yes," piped in Annie, "We can spy on the ones from the other class. There are four of us so it will be easy."

"Huh," Laura said, "I'm not in your year group!"

"Doesn't matter. If you discover it, I'll carry your rucksack every day for a month," said Gabriel.

"OK!"

Thomas, the smallest of the group, had been left out of all of this. He also went to the Mulberry Bush School, but he was in the second grade of the primary school. He had made friends with a boy who also had a metabolic disorder. His name was Eloy and he had glutaric aciduria. At lunchtime, Thomas got together with his older friends in the school lunchroom and often Eloy came along too. He was now one more member of the Metabolical Gang. There they would tell each other their news and try out new recipes that some of them brought along to share.

"What is this great stuff?" Annie asked with a mouth full of mushroom flan.

"It's a recipe that my mother and I have perfected," said Laura. "It has mushrooms, carrots and onion. We added cherry tomatoes and mint leaves."

"Yummm! I think we are going to name you the official cook of the gang," said Gabriel, helping himself to seconds.



At that moment, Susi, who was seated at the end of the table, apart from all the others, was staring at them. Arnau was on the verge of asking her to join them, but he was afraid that Annie would tease him, so he settled with giving her a friendly look.

In fact, Susi was having more and more problems in class every day. She was such a rebel that she sometimes said impertinent things to her classmates and teachers. She managed to get punished and her class teacher had warned her that she would call her parents to talk to them. The final straw was the fight that she had with a classmate. Susi grabbed her pencil case and threw it through the window. Some of the crayons got broken and her teacher gave her a note to take home. Susi was more bad-tempered than ever.



“It’s her!” said Gabriel, the same day, as they were leaving school. “Yep, it’s her that’s stealing the exams and gives them to the other class. She does it because she can’t stand us.”

“What are you saying?” Arnau jumped to her defense. “Susi is no thief.”

“Oh no? So what do you call people who nick the pencil cases of other people?”

“She didn’t nick it. She threw it because that girl was bothering her.”

Annie intervened.

“Hey, you don’t need to defend her so much. Maybe Gabriel is right. Who else would steal the exams?”

Arnau had no doubts:

“Yuri.”

Everyone looked at him.



“That guy?” exclaimed Gabriel, who basically wanted to make friends with the new boy. Above all, he was attracted by anything exotic. Arnau, on the other hand, was a little jealous of Yuri because he had seen Susi smile at him one day.

“Yeah, think for a moment. Who has got the biggest benefit from the stolen exams? Yuri. He’s gone from failing to getting sevens and eights!”

On this point, Gabriel had to agree. But Annie intervened in time to stop an injustice from being committed.

“Boys, boys...if Yuri stole the exams, the most logical thing would be for him not to tell anyone, he wouldn’t risk someone telling on him.”

The three of them were thoughtful. Annie was right. Yuri would have been playing with expulsion, something that would not at all have been good for him. They had to continue with the investigation. The mystery still wasn’t solved.



The following days, Susi did not come to class. Everyone noted it because things were very calm. That night, while peeling apples to bake in the oven, Annie said to her father:

“I wish she never came back.”

But Annie’s father, who was making vegetable lasagna, looked at his daughter and said in a somber tone:

“Don’t say that. I am sure that that girl is having a hard time.”

“But why does she do those things? She could be nice, play with the others and not get herself into trouble. She’s asking for it.”

“And do you know why she is asking for it?”

Annie had to admit that she didn’t. It was so difficult to get close to her!



But the conversation with her father encouraged her to try one last time. She knew that Susi did not live far from her house. She would ask the class teacher to give her the address and she would go to see her. Surely outside of school she wouldn't be so mean. The day after, Susi still hadn't shown up at the Mulberry Bush School. Annie took a piece of apple pie from last night's baking and went to ring her doorbell.

"What are you doing here?"

Susi looked awful. She was pale and had bags under her eyes. You could tell that she had been crying, though she would never admit it.

"I wanted to know how you were. I have brought you some of my homemade apple pie. It's special because it has no eggs or normal flour, but it's really good."



Susi looked at her classmate as if she was an extraterrestrial, but she let her come in. It was an old house with a beautiful patio.

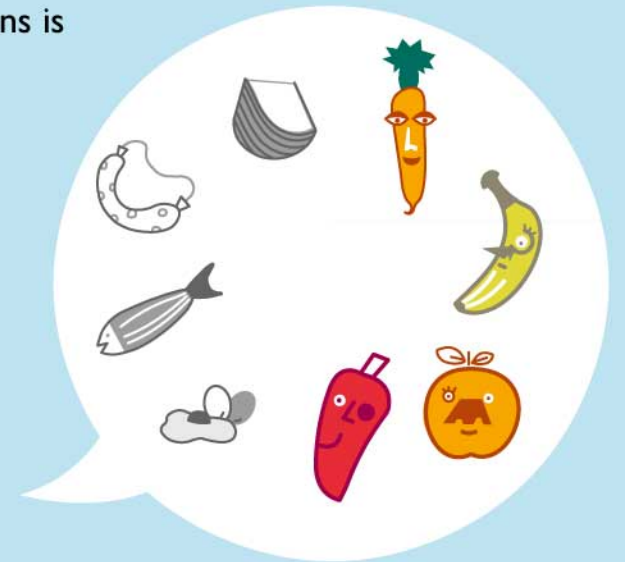
"There's something you don't know about me," said Annie as they walked outside. "I have a metabolic disorder."

Susi looked surprised, partly because of that strange word and partly because Annie was telling her a secret.

"Yes, I know you don't know what 'metabolic' means. It's normal. Hardly anyone knows. What it means is that my body can't tolerate meat, fish or eggs, for example."

"You can't have meat, fish or eggs? So what do you eat?"

"Oh, lots of stuff. And then there are the supplements. But I have had to learn, you see. At first I didn't care about food. But if I ate food that wasn't good for me, I'd get sick."



Susi, for the first time, seemed a normal girl, listening with interest to what a classmate was telling her.

“Look, the truth is it can be a bit of a bother to have to learn everything that you can and can’t eat. But in the end, you learn it and it is fun to cook, invent recipes and talk to other people who have the same thing.”

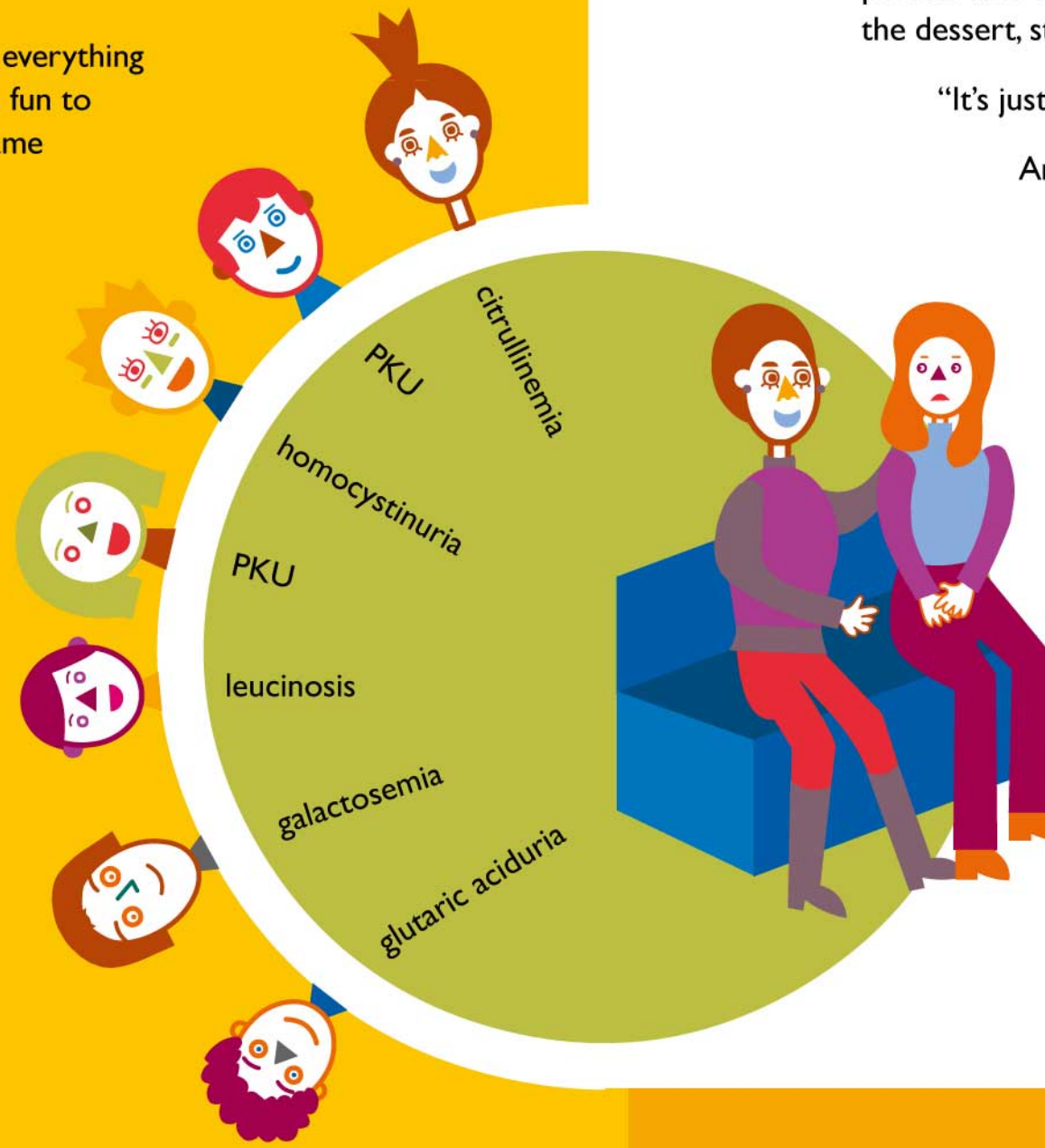
“Oh, so you’re not the only one with a meteorite?”

“A metabolic disorder,” Annie exclaimed, laughing. Not so long ago, she was the one who got the words mixed up.

“No way! In class there are two more who have them. Arnau, who has homocystinuria and Gabriel, who has PKU. And in the class next door, Amber. And in first year, my friend Laura who also has PKU. And in the primary school, Thomas, who has leucinosia and Eloy, who has glutaric aciduria. And in other schools and high schools there have got to be more people.”

“PKwhat? Acidwho?” Susi asked, surprised, but getting more and more excited.

“Ha ha, welcome to the strange names club!” Annie laughed.



Susi was stunned. Until that moment, she had always thought that she was the only person who was “different”. Annie offered her a slice of apple pie, but Susi, looking at the dessert, started to open up her own box of secrets.

“It’s just that I...I have problems with food too.”

Annie smiled and gave her a friendly pat on the back, “So, why didn’t you say so before? You can be a member of the Metabolical Gang.”

But that wasn’t Susi’s secret. She was ashamed to talk about it.

“No, I can eat everything. It’s just that...”

“Come on, say it. I am sure it’s not so awful.” Saying that, she stroked Susi’s arm and this gesture helped the girl to confess.

“I vomit up my food. At home they make me eat and then I lock myself in the bathroom and I throw up. I do the same thing at school. That’s why I don’t want to be around anyone.”

Wow, she said it.



Annie was in shock. To think that someone who could eat everything wouldn't want to...man, the world was crooked! Susi was an enemy of food!

"Why do you do it?"

"Because I want to be slim. If I get fat, nobody will want to be my friend."

Annie blurted out:

"But nobody wants to be your friend already!"

On hearing this, tears came to Susi's eyes and she lowered her head. Annie realized that she had hurt her and added:

"There are fat people with loads of friends and slim people with hardly any. Having friends has nothing to do with your weight, Susi."

Susi looked up. Her classmate was right. Then she explained to Annie that she had always wanted to be her friend, but she was afraid that Annie might not like her. Annie told her that in spite of her character, she had come to see her. And that was because, since the first day she had wanted them to be friends. She liked rebellious people.



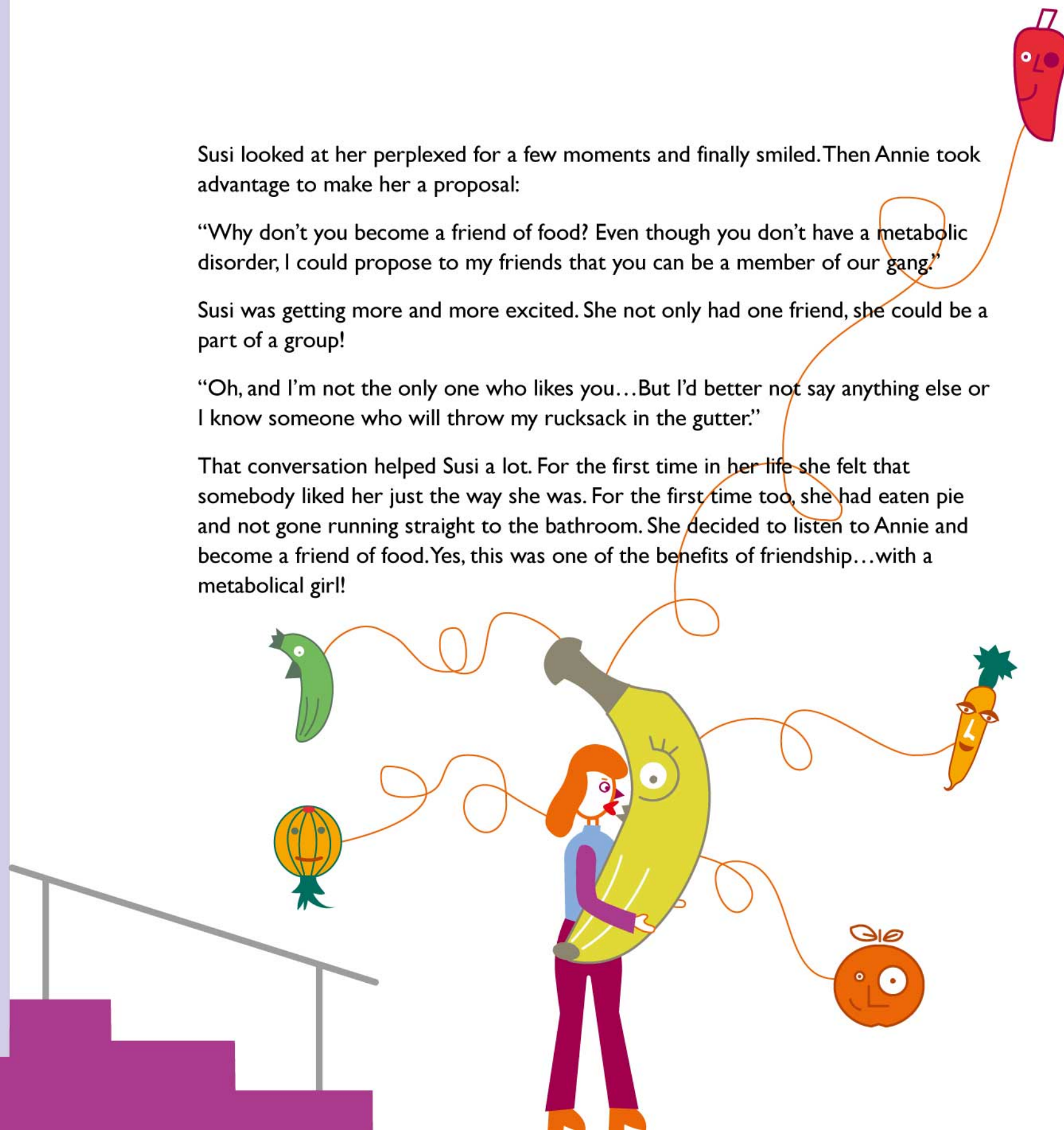
Susi looked at her perplexed for a few moments and finally smiled. Then Annie took advantage to make her a proposal:

"Why don't you become a friend of food? Even though you don't have a metabolic disorder, I could propose to my friends that you can be a member of our gang."

Susi was getting more and more excited. She not only had one friend, she could be a part of a group!

"Oh, and I'm not the only one who likes you...But I'd better not say anything else or I know someone who will throw my rucksack in the gutter."

That conversation helped Susi a lot. For the first time in her life she felt that somebody liked her just the way she was. For the first time too, she had eaten pie and not gone running straight to the bathroom. She decided to listen to Annie and become a friend of food. Yes, this was one of the benefits of friendship...with a metabolic girl!



However, there was another mystery to solve. The one of the stolen exams. Who was it? How did they do it? And why? The investigations of the gang hadn't been fruitful. One afternoon, under the trees of the square at the Mulberry Bush School, the five of them met, including Thomas, who was waiting to be picked up for his violin class. Gabriel, drinking his Captain PKU juice, was the first to speak:

"I'm starting to get fed up. I give up. I have decided to study more and catch up with the ones from the other class. I don't care if they are copying or not."

"You're right," said Arnau. "Furthermore, it's very difficult to get into the teachers' room without being seen..."

Then Thomas, with a mouth full of pear, said:

"Eloy goes into the teachers' room. And his sister too. His mother is a teacher and they go there to find her when they finish school."

The other four were speechless. Laura was the first to react.

"So now there are two people who go into the teachers' room without raising suspicion."

Arnau jumped in:

"It can't be Eloy, he's too small. But his sister... Do you know which year group she is in, Thomas?" Gabriel asked.

"No, but she's older."

With this information they had enough. The Metabolical Gang went into action to investigate the case until they solved the mystery. Terry was a biology teacher with two children, seven year old Eloy and Blanca, who was twelve and was in the other group of the second year of high school. It was clear that she was stealing the exams and passing them to her classmates. Laura was the one who discovered how.





One morning, she and Annie were talking with some boys from the other class at break time and Laura said without beating around the bush:

“I want to ask Blanca to get me Thursday’s math exam.”

The boys gave her surprised looks. But Laura had spoken so naturally that they answered:

“Ask her for it. But have a euro ready. The math ones are the most expensive.”

“Well that’s a bit overpriced!” said Annie, using her father’s expression.

“Well, yeah. It seems that Blanca’s mother stopped her pocket money as a punishment and so she invented this system to get some money.”



That was how they discovered it. When they met up with the group, Annie told them about Laura:

“She could be an actress!”

“No, I want to be a chef!”

The two of them explained that Blanca got the exam question papers in the teachers’ room in the easiest way possible. She was accustomed to going there every day to look for her mother and she knew the places where the teachers left their things. She only had to be very vigilant and when nobody was looking, swoosh! Exam into her folder.

The exams



Nobody suspected her. She had spent years coming and going from the teachers' room.

"Gosh, she must be rich. A euro for an exam!"

"Just the math ones. The rest cost 50 cents."

"Maybe we could do some business with her, huh?" Annie said, winking.

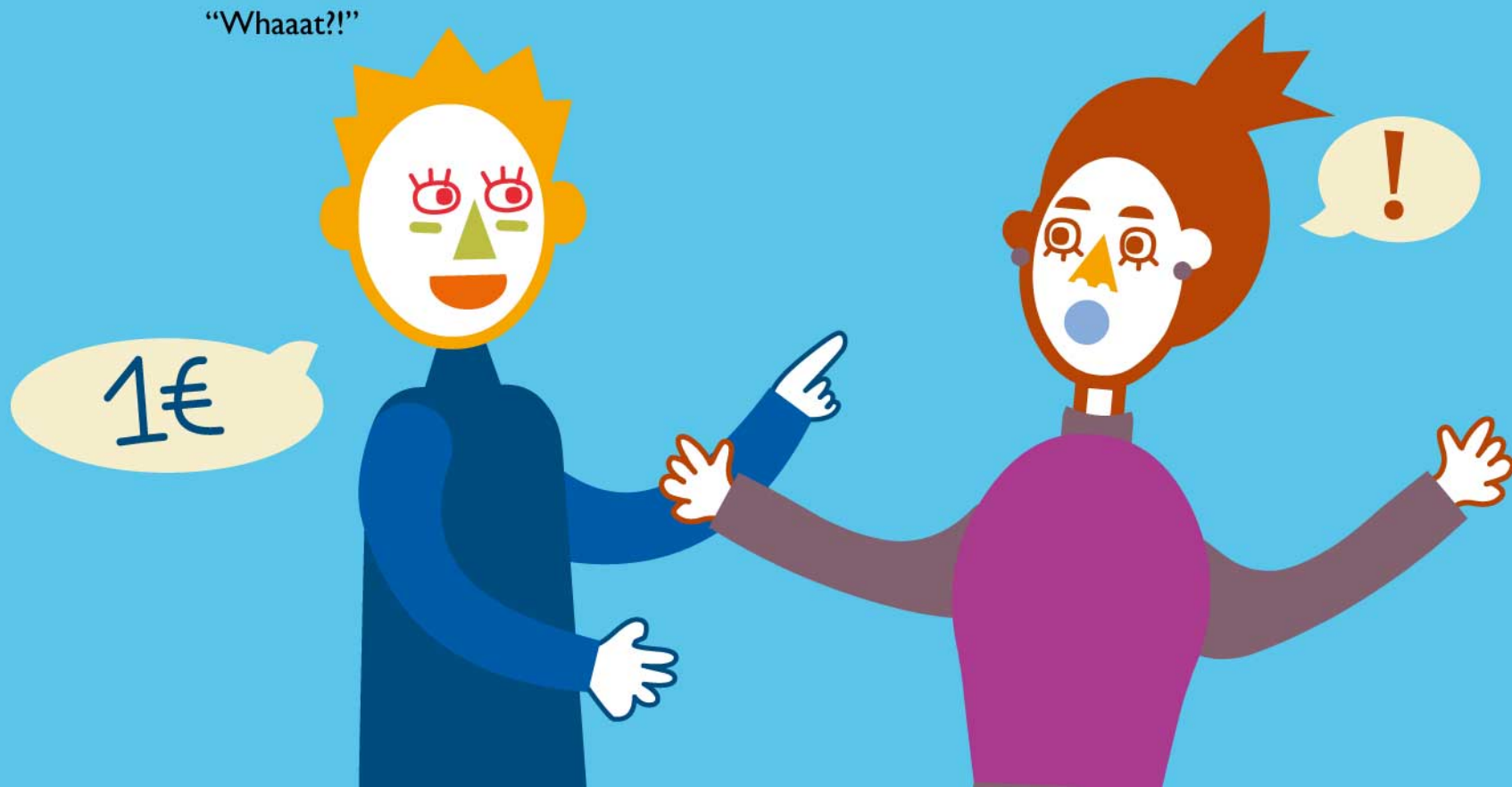
"That's not necessary. I am getting the best grades that I have ever had." Gabriel said proudly, "and without cheating!"

"OK, now that we have solved the mystery, I want to propose something to you," said Annie, a little afraid.

"What?" the others asked in unison.

"That we accept Susi as a member of the Metabolical Gang."

"Whaaat?!"



Annie explained to them about the conversation she had had with her classmate and told them that Susi needed to have friends. The gang would be the best place for her because everyone would understand her problems with food. Arnau totally agreed but Gabriel and Laura were not convinced.

"Her problem isn't a disorder!"

"Yes, it is."

"But it is not metabolic."

"So what? It's a problem with food."

So they talked and talked. In the end, Arnau had an idea.

"Well, if she can't be a member of the gang, she could be a 'supporter'..."



Everyone thought it would be good for the gang to have supporters, though nobody knew exactly what it meant. Thomas hit the nail on the head.

“Eloy is not one of the five in the gang, but he eats with us and he shares recipes with the metabolicals.”

Everyone thought that it was a good idea. When Susi brought food that was low in protein, she could share with the rest. That way she could be a supporter.

“We’ll have to explain to her what we can eat and what we can’t, so that she knows what she can share with us.” Laura said.

“No problem, I will explain to her,” Arnau said, happy. “I’ll make her an outline with drawings!”

Annie said nothing this time, she just winked at all the others.



The Christmas holidays were drawing near and the second year students had to do a craft project. They could choose between a mural or a comic. The ones from the Metabolical Gang chose the comic. Laura, though she was not in the same year group, also participated, meeting with them and contributing ideas. At the end of the day, she was the one who had discovered the exam thief. Gabriel had to carry her rucksack from home to school, but it did not last a month at all. On the third day, she was tired of it and they all decided that in exchange for him not carrying it anymore, she could come to their meetings and work on the comic.

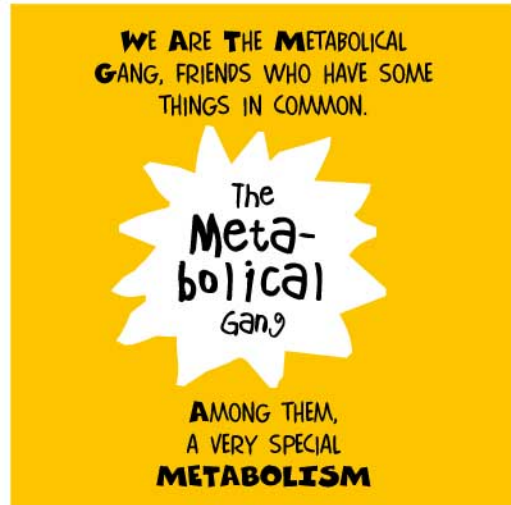


They decided to explain the things that had happened at the beginning of the school year: the new classmates, the problems with Susi, the good grades of the other class, the mystery of the teachers' room. They had a great time. The person who was not happy was Blanca. When the comic ended up in the hands of the craft teacher, she went to speak to Terry, Blanca's mother. Immediately the good grades of the other group stopped. As they were accustomed to not studying, the majority of them failed the next exam. The other class, the one with the metabolicals laughed themselves silly.

"Those teachers are just too much!" Didn't they realize that such good grades were suspicious?"

"Bah! The teachers live on the moon!"





When I grow up, I'm going to be an artist!



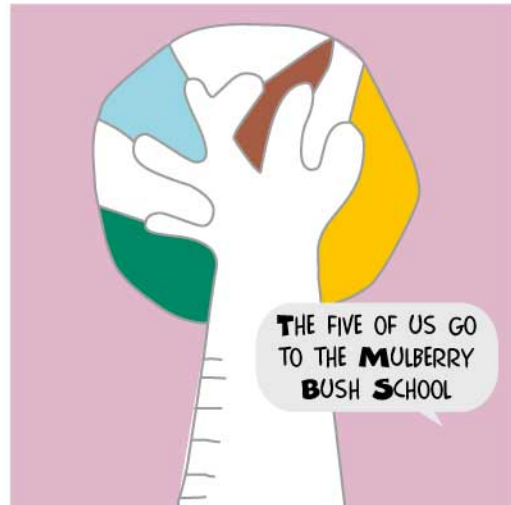
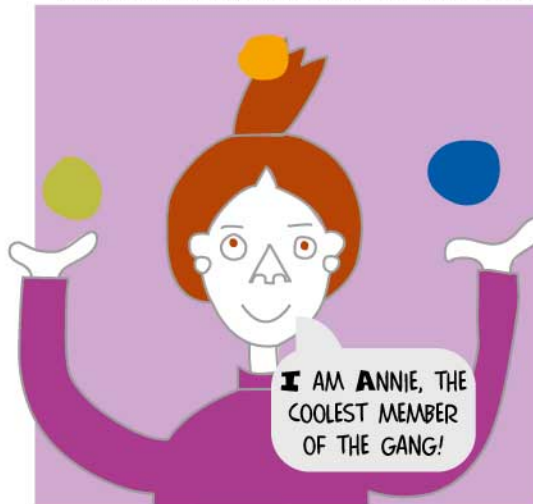
When I grow up, I am going to be a violinmaker!



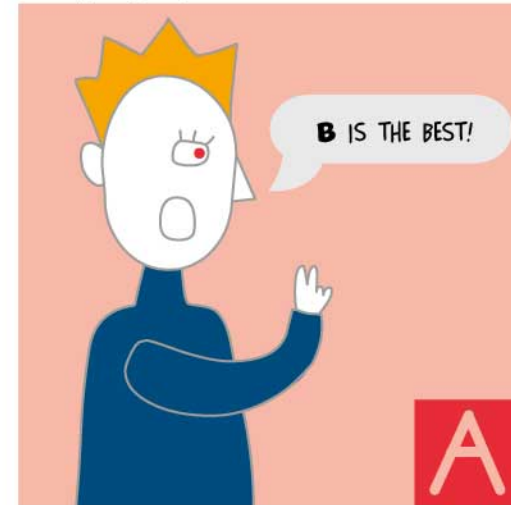
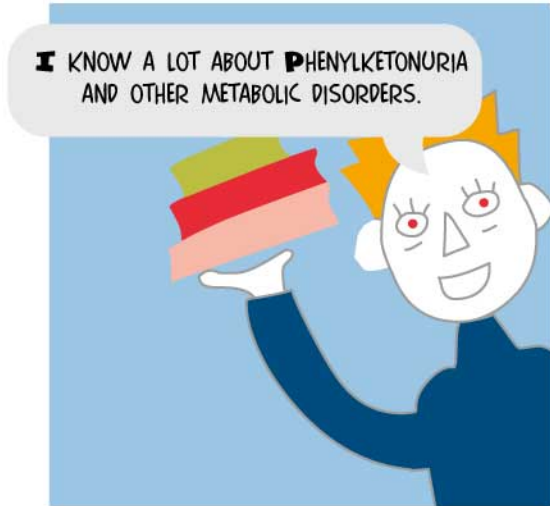
When I grow up, I'm going to be a chef.



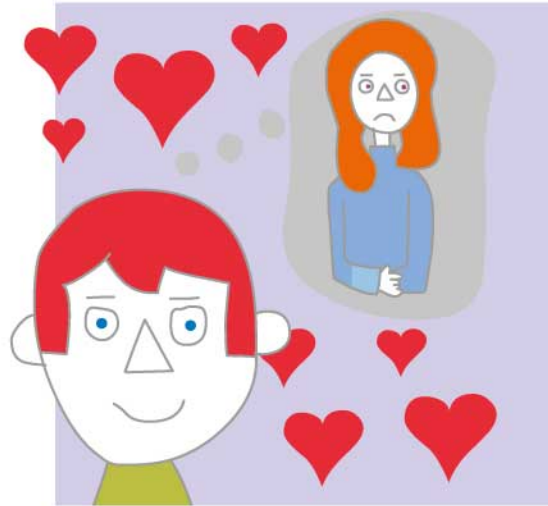
When I grow up, I am going to be an acrobat.



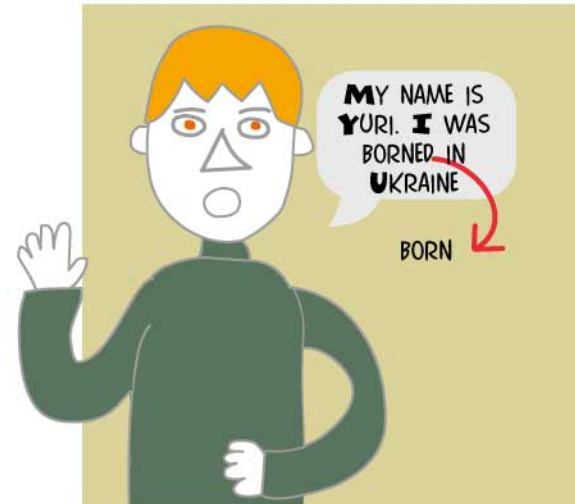
When I grow up, I am going to be a scientist.



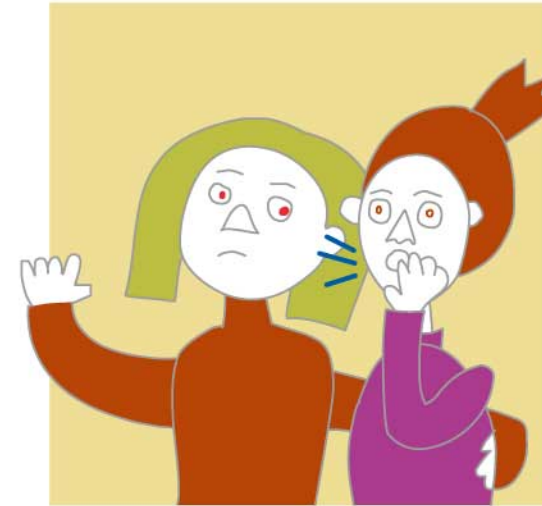
Arnau liked her from first sight.



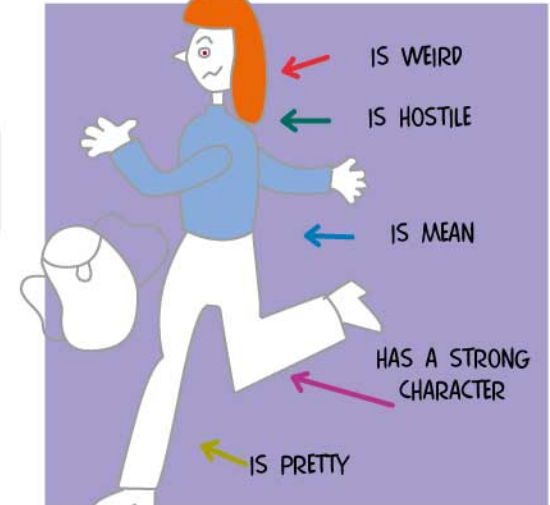
His name is Yuri and he's learning the language.



Annie always butts in when she shouldn't



The school year started well, but very soon...



In the other class there is a new boy. He's from Ukraine.



On the other hand, in the A class...



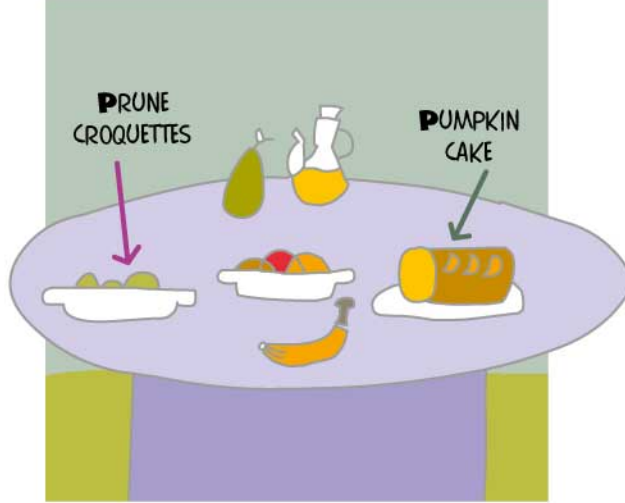
Gabriel couldn't stand people getting better marks than him,...



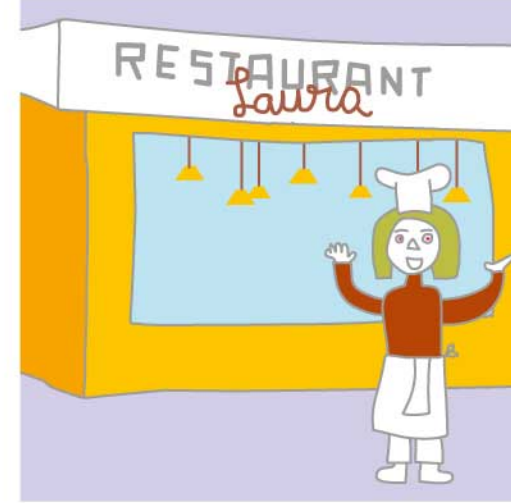
He said we had to solve the mystery.



When we get together, we all bring a nice low protein snack.



Laura is going to open a "special" restaurant.



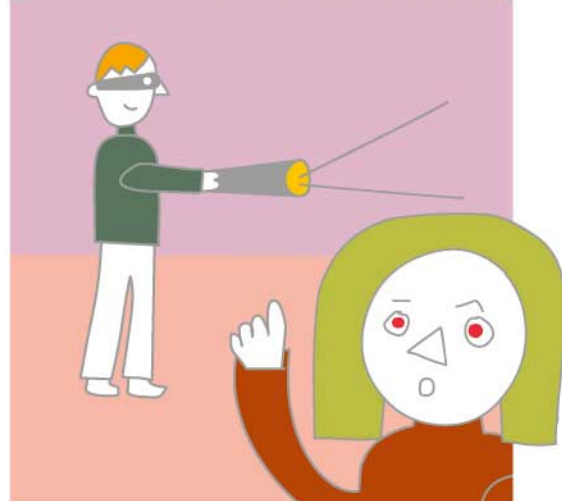
Eloy, Thomas' friend, has joined our table. He has glutaric aciduria. 31



Our first suspect was Yuri



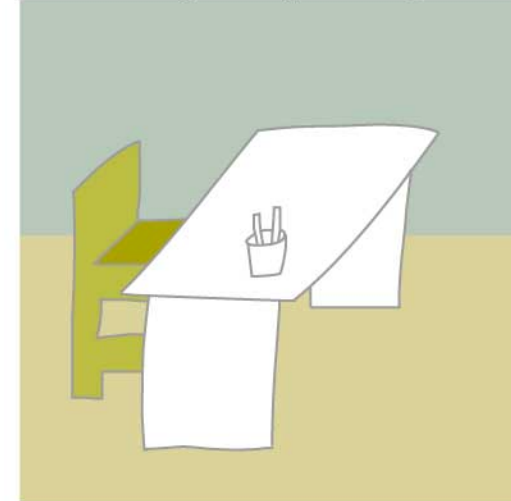
But we threw out that theory, because we couldn't imagine him stealing



We had to redirect our investigation



Susi was having more and more problems and one day, she stopped coming to class...



Annie went to see her and discovered her mystery.



You can't imagine how happy Arnau was...



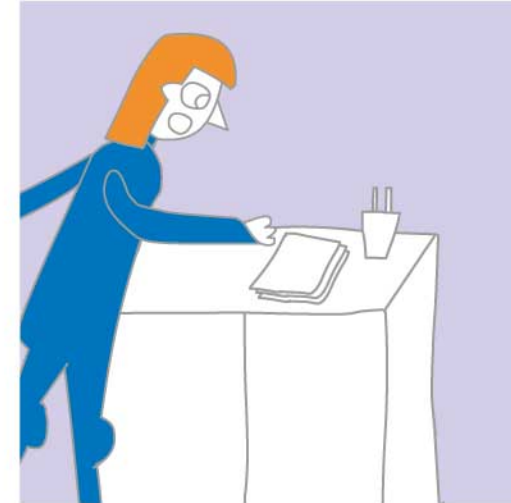
In the lunchroom, we can't talk. There we exchange recipes.



SOME OF US HELP OUT THIS IS DELICIOUS!



Thanks to Eloy and Thomas we solved the mystery of the exams.



It is the daughter of a teacher: she goes in and out of the staff room without raising any suspicion.



Now everyone gets the mark they deserve.





Congenital Metabolic disorders: They are a very numerous group of 'rare' diseases caused by hereditary changes in DNA. These mutations give rise to proteins not functioning correctly and cause alterations to the metabolism because they obstruct one of its pathways.

Some of these diseases, the ones which affect the metabolism of amino acids and organic acids, are treated with special diets which prevent the accumulation of toxic products that can affect the brain or other organs of the affected child. This means a treatment based on diets low in foods with a high protein content (meat, fish, eggs, milk and their derivatives), which are then substituted with a special formula (Captain PKU juice in the story). The special formula contains no harmful substances, but it does have everything else that is necessary for our health.

PKU or Phenylketonuria: A congenital disorder of the metabolism of phenylalanine, which causes the accumulation of this substance in the blood, urine and tissues, causing particular damage to the brain.

Homocystinuria: Congenital error in the metabolism of homocysteine, which causes the accumulation in plasma, urine and tissues of this substance, harming the brain, bones, eyes and the circulation of blood.

Ammonia: Proteins are formed by a very long chain of amino acids which release ammonia when they are broken down. This is a substance which is very toxic for the brain. Our organism eliminates it by converting it into urea, by way of a series of cyclical reactions, the urea cycle, which converts toxic ammonia into urea, not toxic and easily eliminated in urine.

Citrullinemia: A defect of the urine cycle which causes the accumulation of ammonia and citrulline in the blood, the urine and the brain, which it especially harms.

Leucinosi or Maple Syrup Urine Disease: A congenital error in the metabolism of some amino acids, leucine, isoleucine, and valine, which causes the accumulation of neurotoxic products in plasma, urine and tissues. These neurotoxic products smell like maple syrup, which gives the name to the disease. Leucine and one of its derivatives are the compounds that accumulate the most and are the most toxic. For this reason the disease is also known as leucinosi.

Glutaric aciduria: Congenital error in the metabolism of lysine, which causes the accumulation of toxic products in plasma, urine and tissues. These toxic products are glutaric acid and its derivatives.

The Secrets of the Mulberry Bush



Other titles from the collection:

Mysterious Footprints • A Prize Recipe

Everybody is different, inside and outside.

Some are dark and have long legs; others are blonde and chubby. Some have small ears and others, eyes like saucers. That is what you can see on the outside.

But inside our bodies there are also differences.

Some people cannot eat sugar, others cannot tolerate milk or lactic products; some have allergies or can't eat animal proteins. Luckily, just like there are clothes for every body type, there are foods for every type of metabolism.

This collection will introduce you to Annie, Arnau, Gabriel, Laura and Thomas, boys and girls with their individual characteristics, but who have in common a metabolism that is..different. With them and their friends, you can discover about phenylketonuria, homocystinuria, maple syrup urine disease or citrullinemia, etc. and with them you can have mysterious, funny and exciting moments.

With the Metabolical Gang you can learn a lot about disorders and nutrition and have fun with their adventures.

