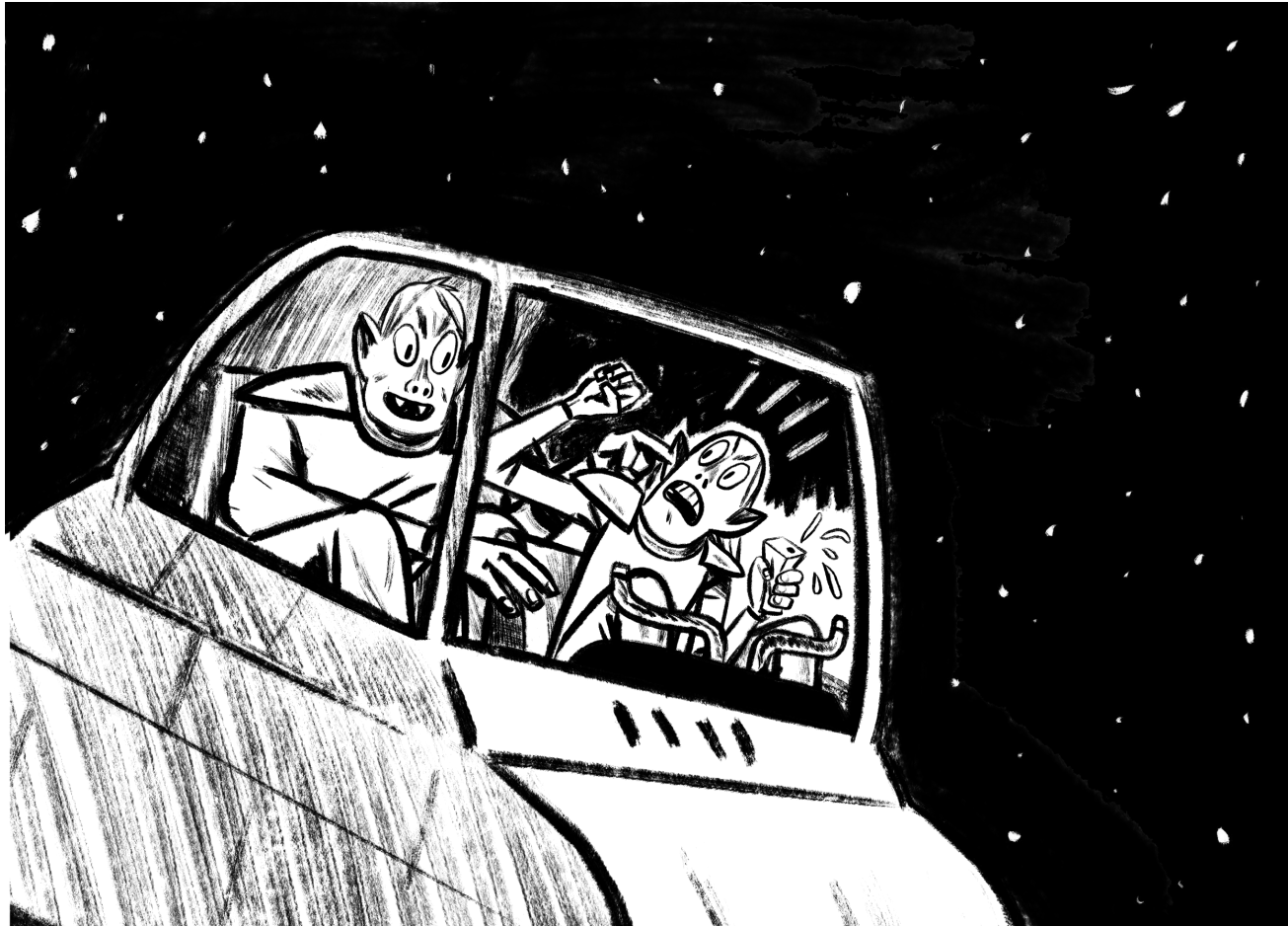
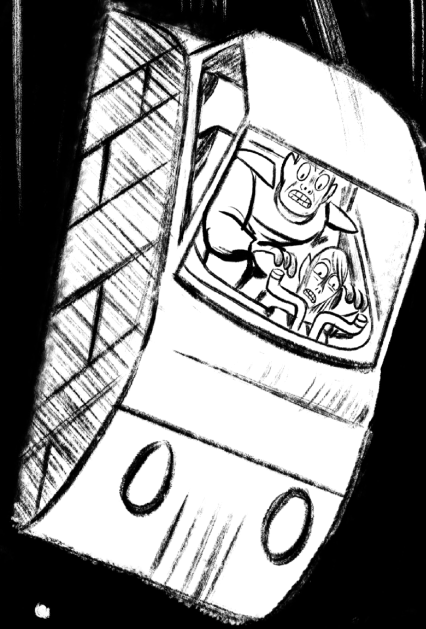


- Get ready for light speed, says the group leader Zom. Field trip to planet Earth is coming to an end. All the ships are making preparations to make the jump. Except one.

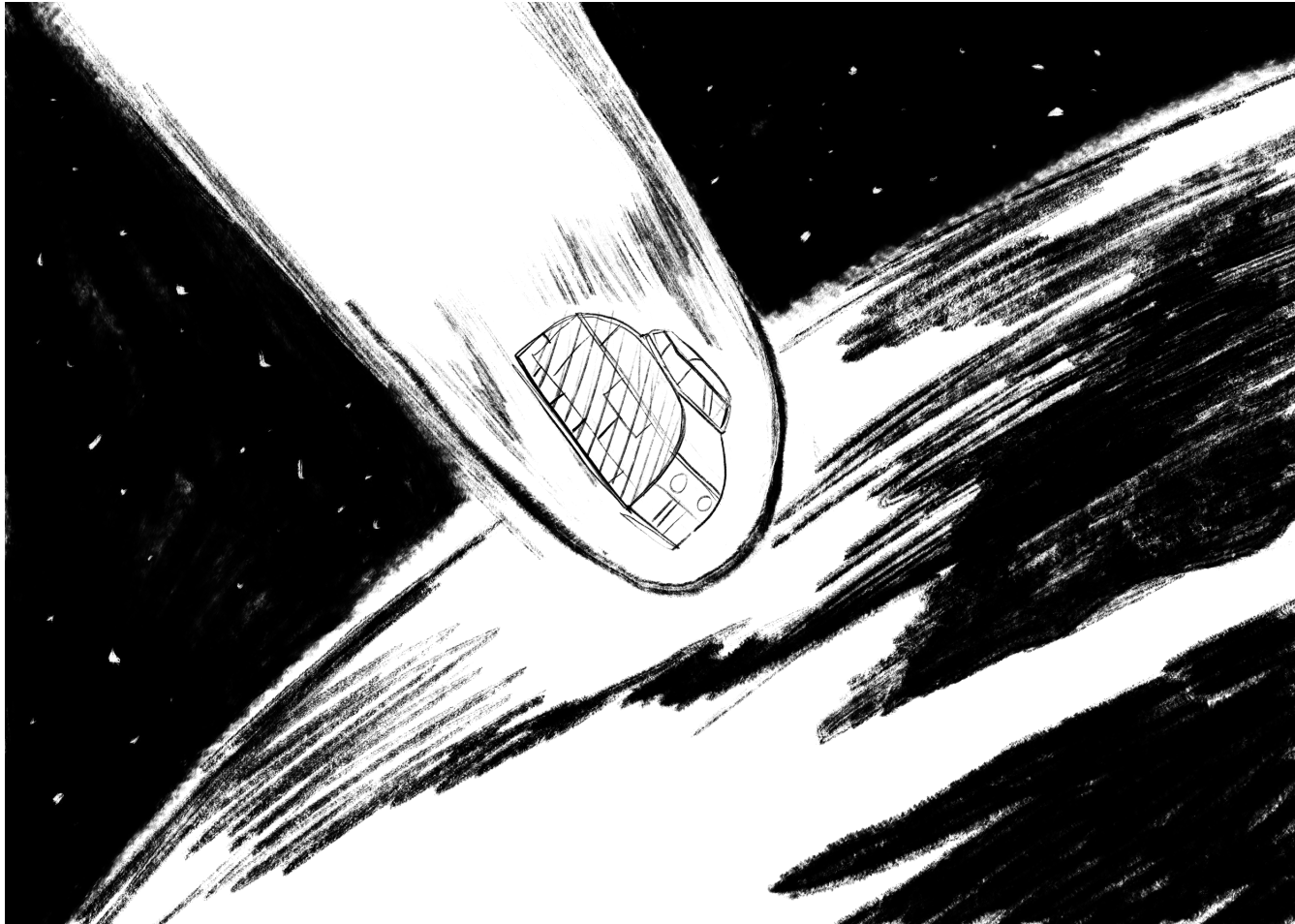


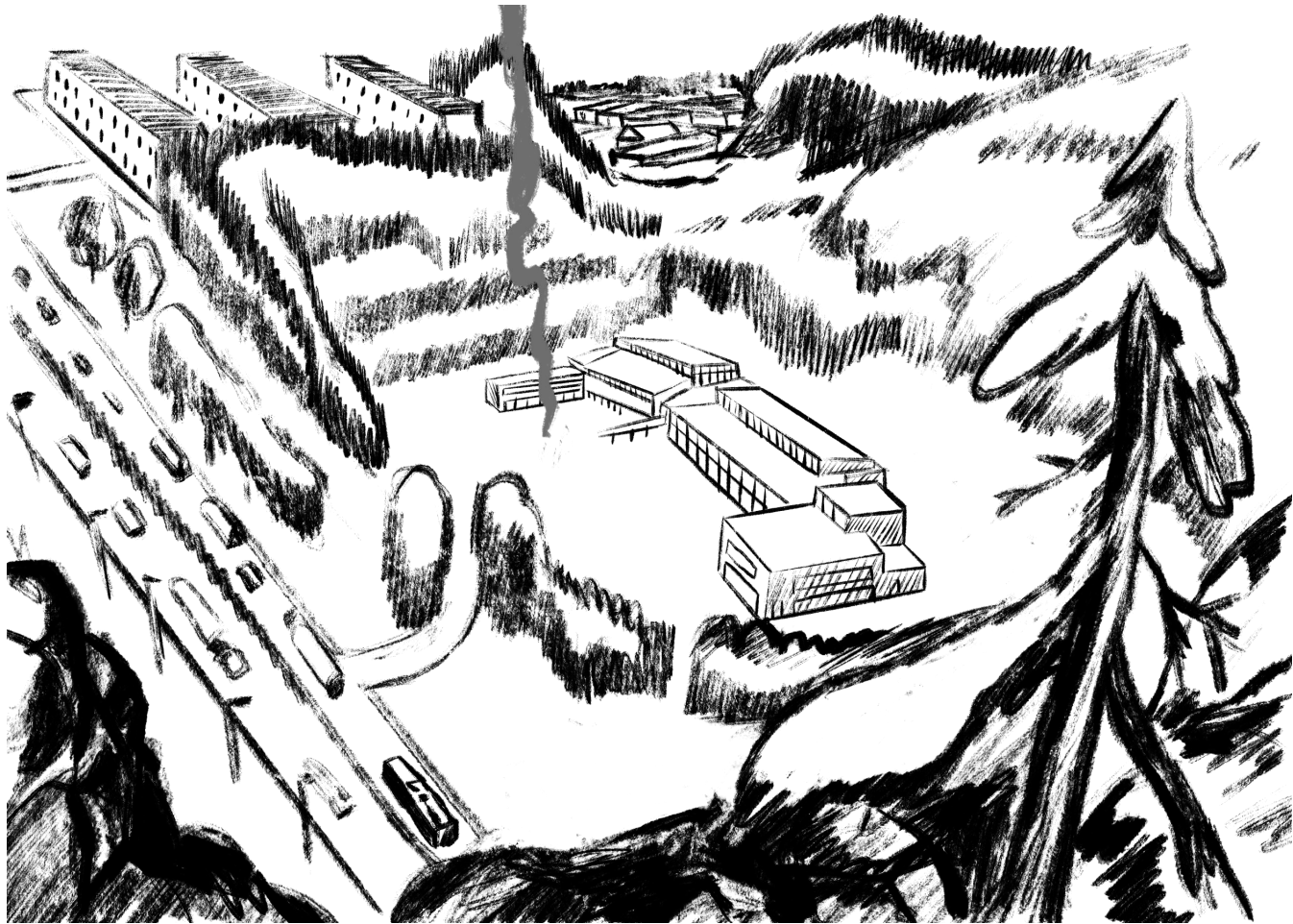
- Get off me Plano!
Cut it out! Obdi
shouts and spills his
juice box all over the
ship's consoles.

- Oh now you've done it! Look what you did! Plano shouts angrily and lunges towards Obdi.



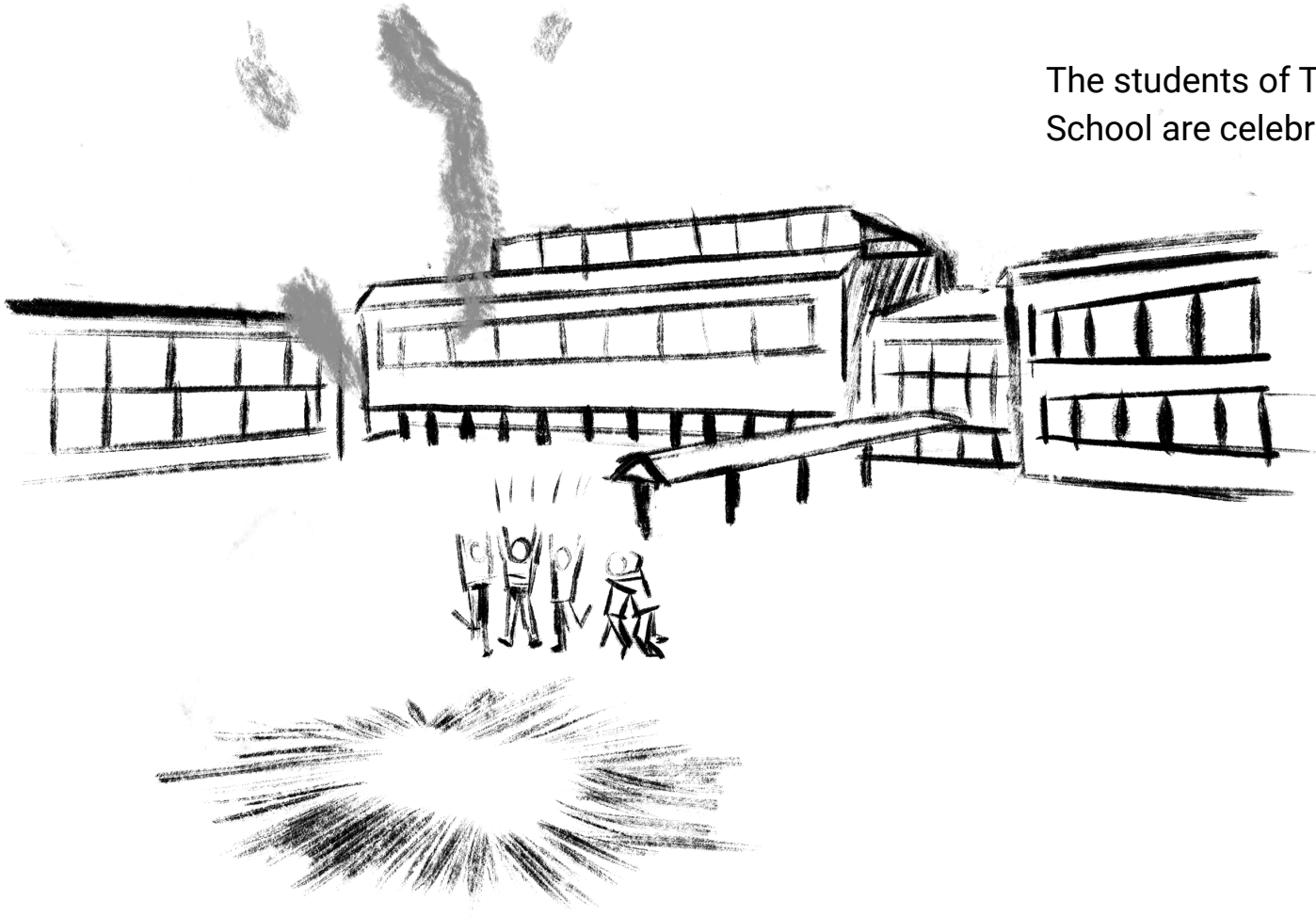
Obdi falls over the control panel. Woosh! Suddenly the ship changes its course and accelerates back towards Earth. The two aliens Obdi and Plano are screaming and embracing each other while other ships make the jump to lightspeed and back home without noticing the two missing students.





Meanwhile on Earth...

The students of The Elementary School are celebrating.



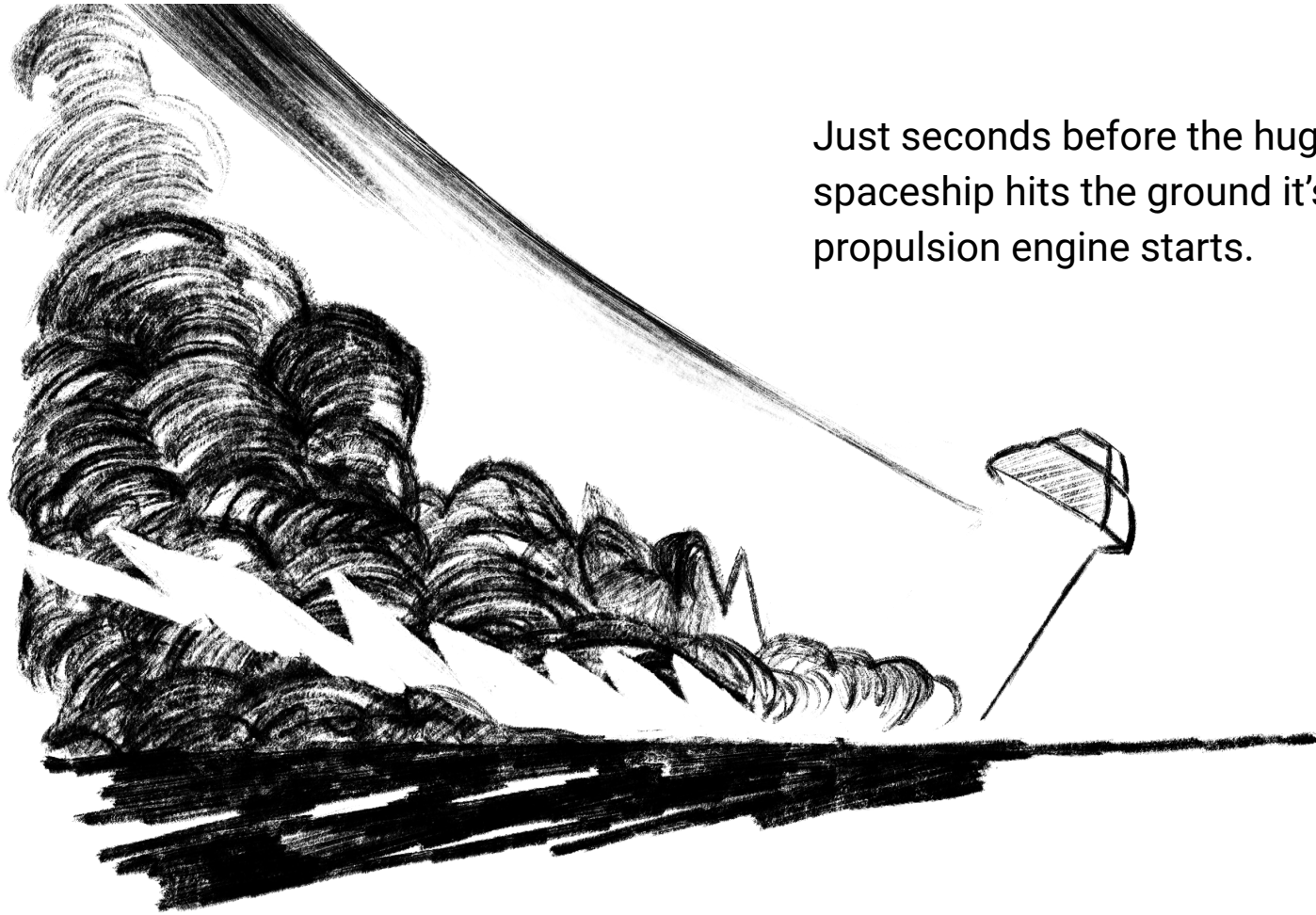
They've finally successfully launched their satellite into orbit. Suddenly they hear a roar from the sky.





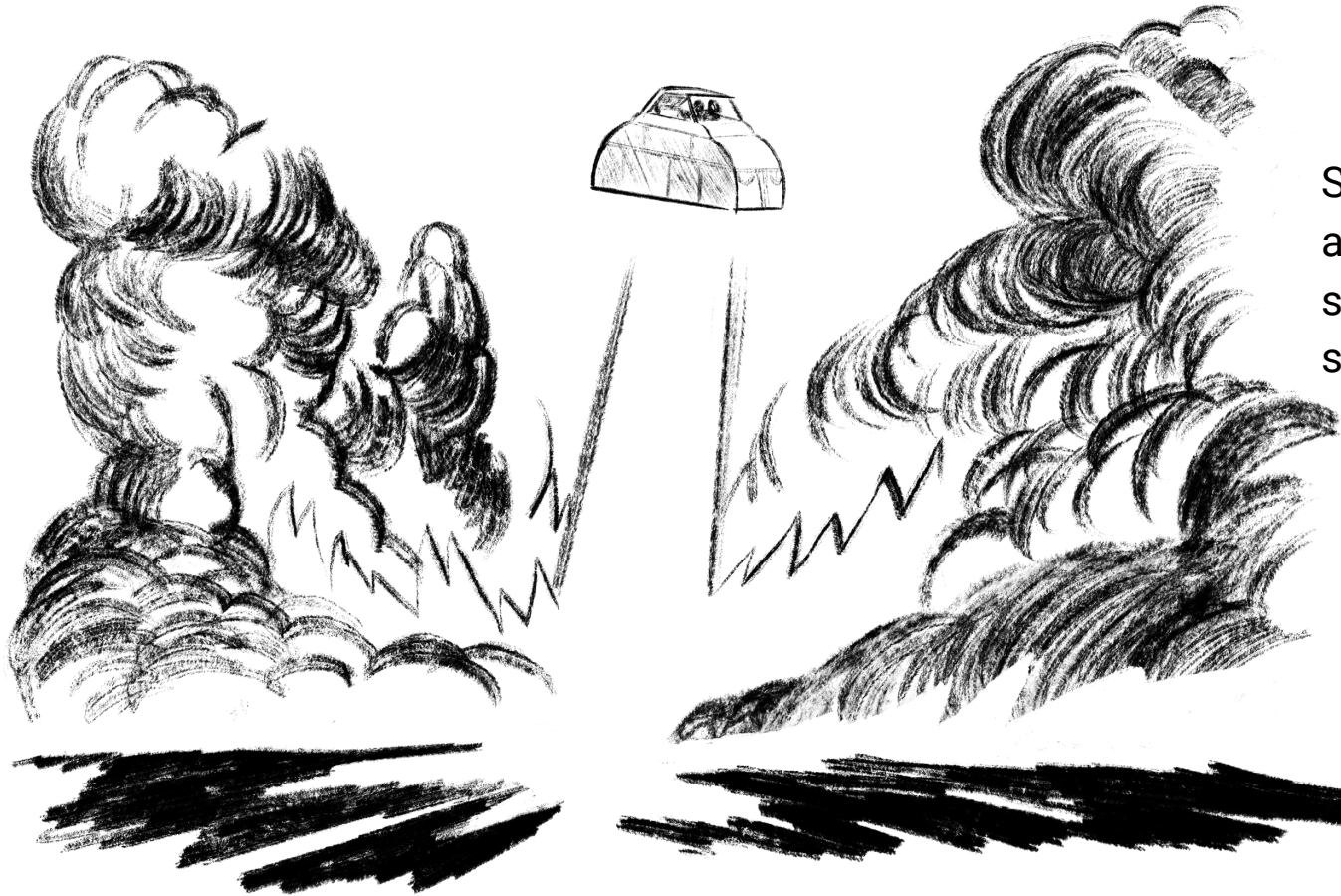
A huge explosion lights the sky. The satellite exploded! Through the fiery debris something huge is hurdling towards the students!

Just seconds before the huge
spaceship hits the ground it's
propulsion engine starts.

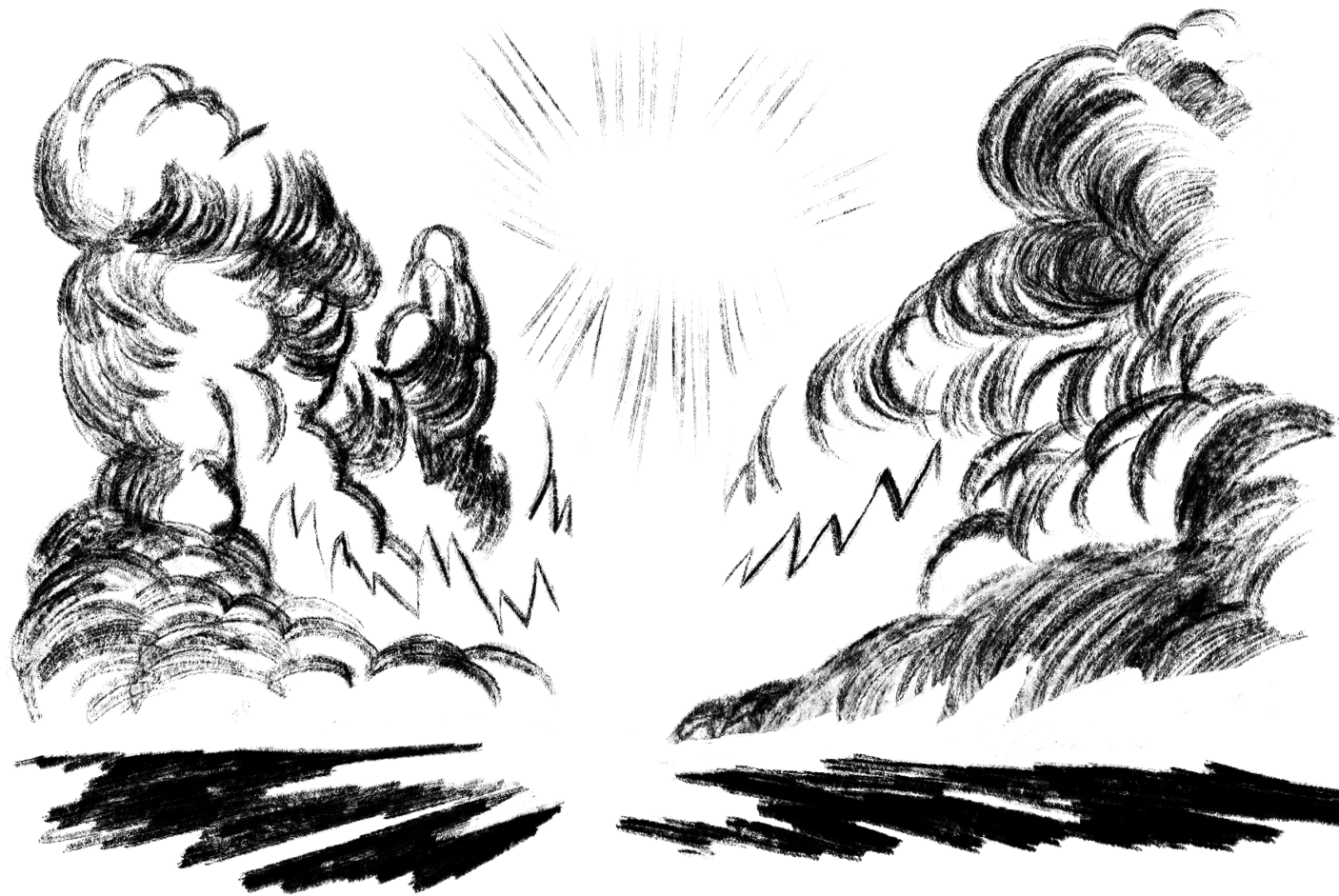


Pupils are peeking cautiously from the cover of the school building as the spaceship mows down everything in its path.





School yard looks like
a war zone. Then
suddenly the
spaceship is gone.



- Oh no! Did you see what we did?! Obdi screams.

-This is bad! This is bad! They saw our ship!
Plano screams while looking out of the spaceship.

-The ship's cloaking device is working but everything else is down, Obdi observes from the ship's control panel.



Obdi reads through the list of broken parts of the ship:

On Board Computer - Broken beyond repair. Must be replaced

Camera - Broken beyond repair. Must be replaced

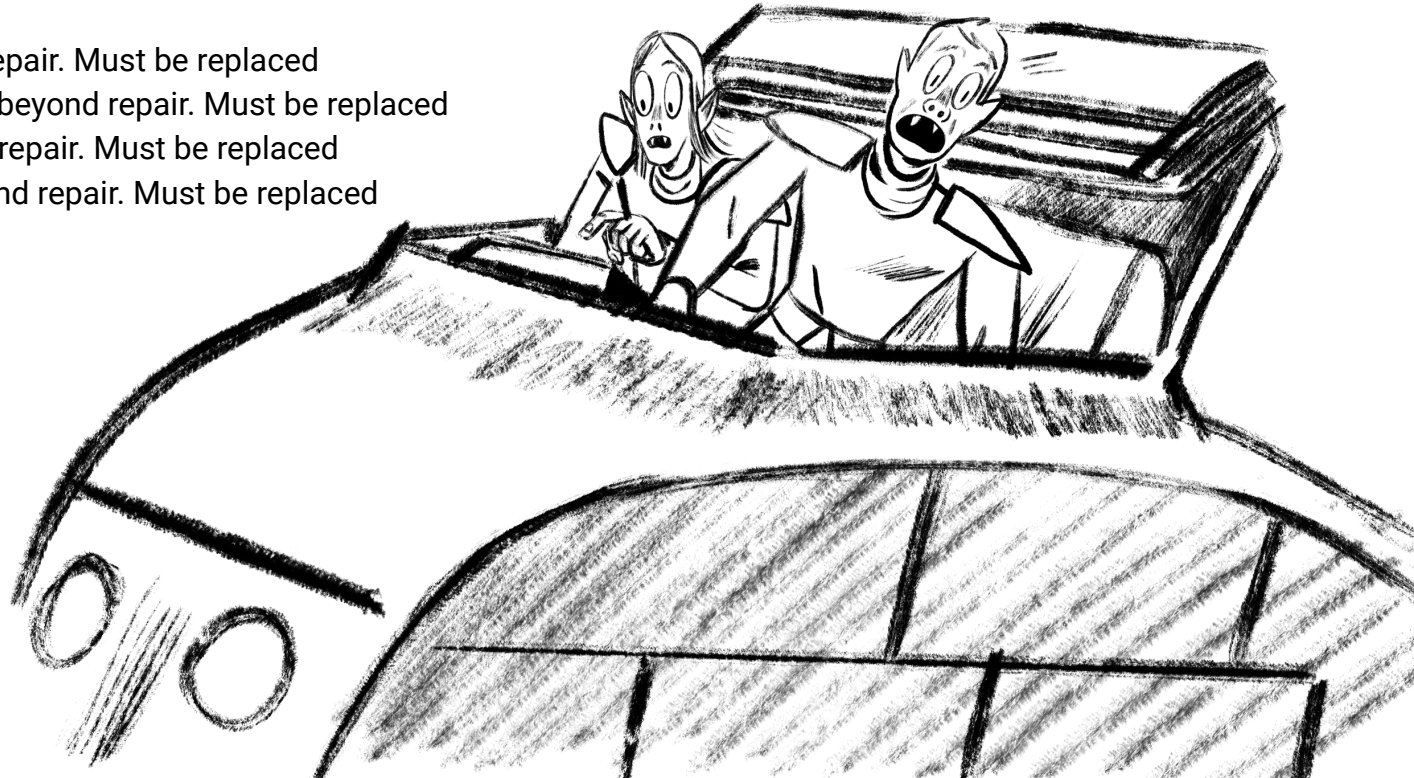
EPS (Electrical Power System) - Broken beyond repair. Must be replaced

Sensors - Broken beyond repair. Must be replaced

Radio transmitter - Broken beyond repair. Must be replaced

Antennae - Broken beyond repair. Must be replaced

Solar panels - Broken beyond repair. Must be replaced

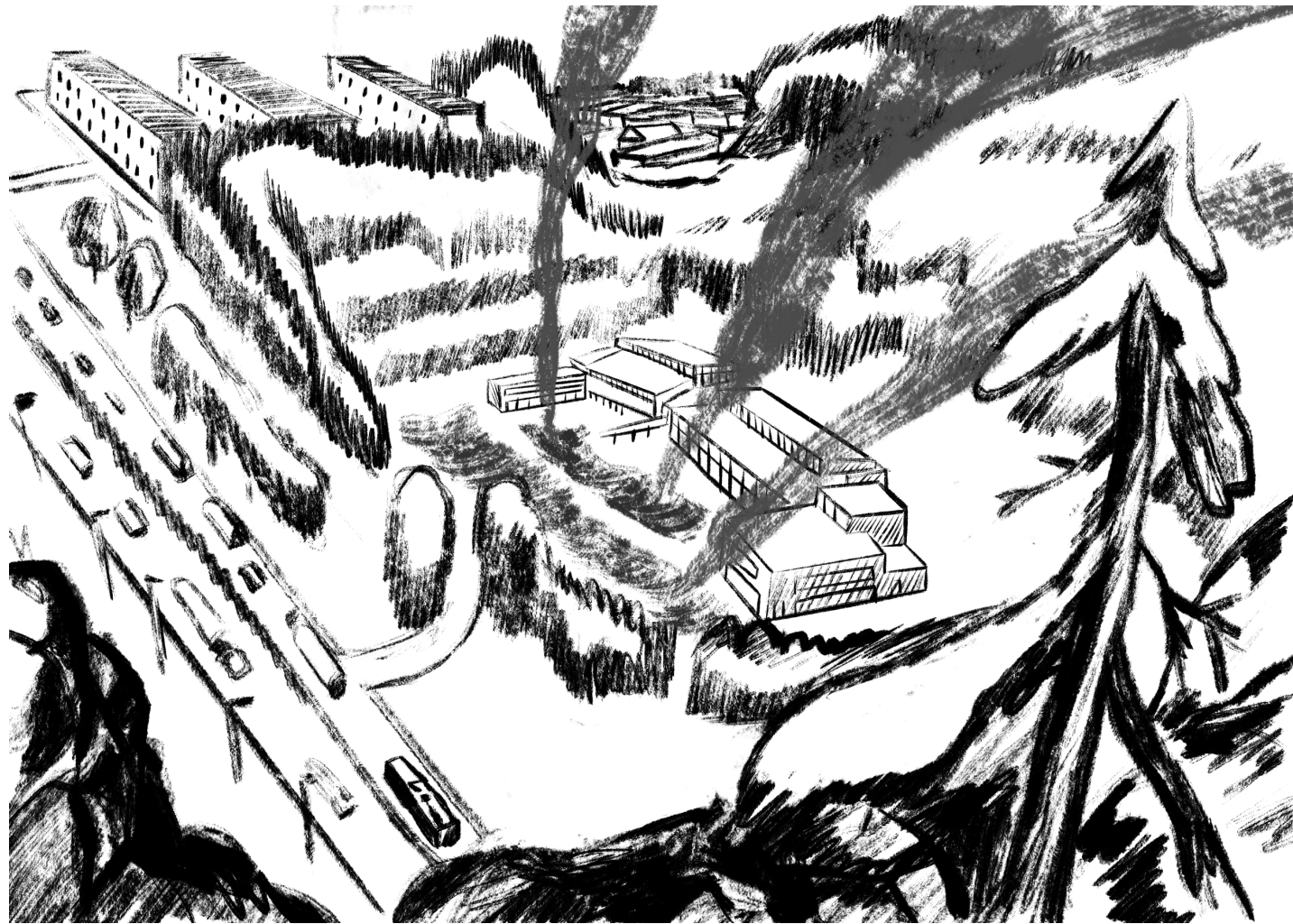


- We need help! But there are only these weird earthlings. I think that everyone else is at home already, Plano says.

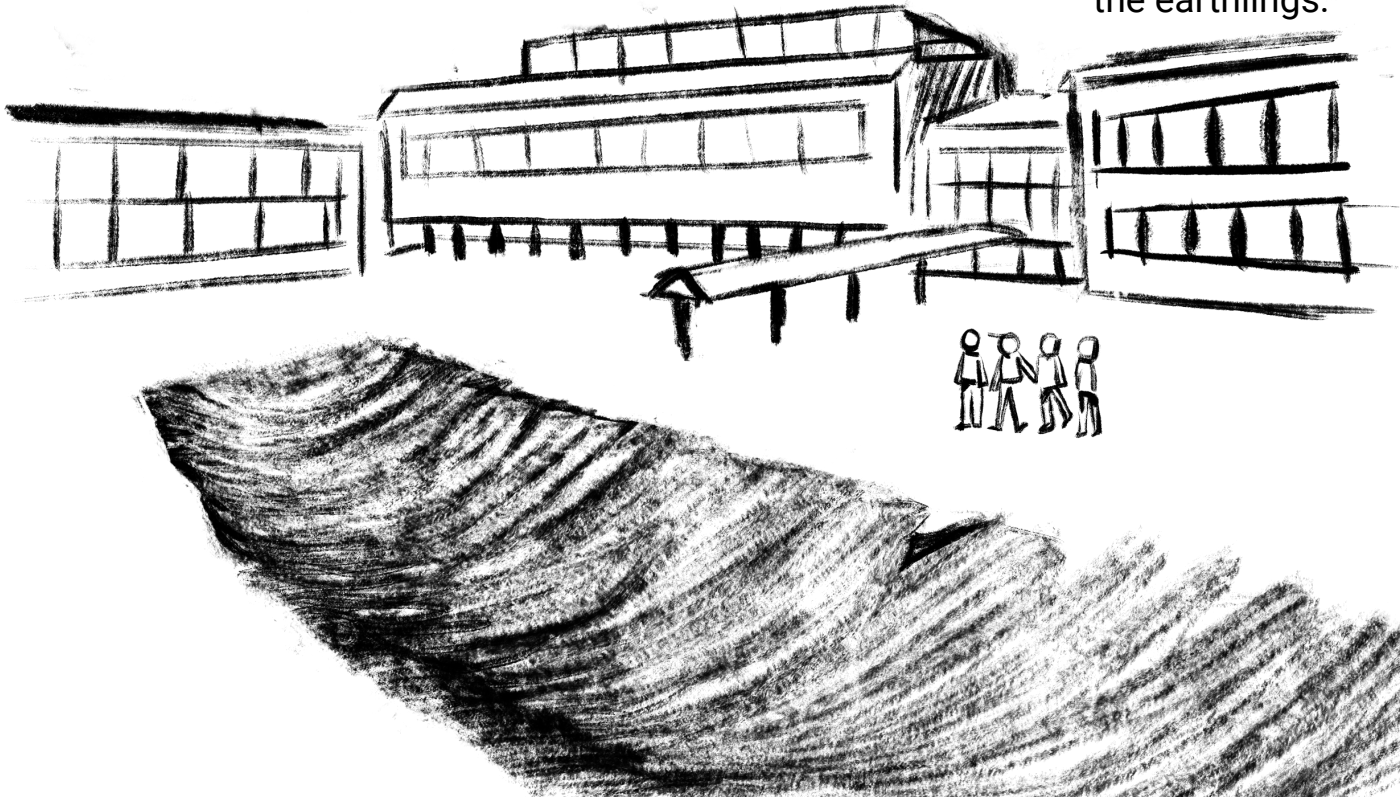
- Maybe we can ask the earthlings for help, Obdi says.

- That's our only choice and after all we have to make things better. Just look at what we did to their yard, Obdi says.





Obdi and Plano are preparing themselves for an encounter with the earthlings.





They exit the ship and face dozens of astonished faces. The students of The Elementary School are catching their breaths as they face two aliens on their school yard.





Plano activates the communication device so that the earthlings can understand them.

- Hello! We are Plano and Obdi. We come from a planet far away called Elneron. We had a field trip to Earth today. Unfortunately we missed our jump to lightspeed and instead crashed into your yard. Sorry about that. Our ship is broken and we were thinking that maybe you could help to fix it, Plano says.



Mumbling sounds can be heard amongst the students. After a few moments one student steps up and hands over a list. Obdi and Plano are baffled.

- Help us with these things and then we can help you to fix your ship. We have a school project that we have to complete first, one of the students says.

The students also introduce their information sheets they've gotten from their teacher for the project. On the cover of the material is a drawn image of a satellite and a header that says: **"Courier"**. The students tell the aliens that they can use the Courier and other sources of information to complete the project and Obdi and Plano will be counted on one source of information and guidance.



- Umh. Okay then. We will help you if you promise to help us with the ship, Obdi says.

The student and the two aliens shake hands. The aliens can't help but ponder how a group of earthlings can help out with their high tech ship.



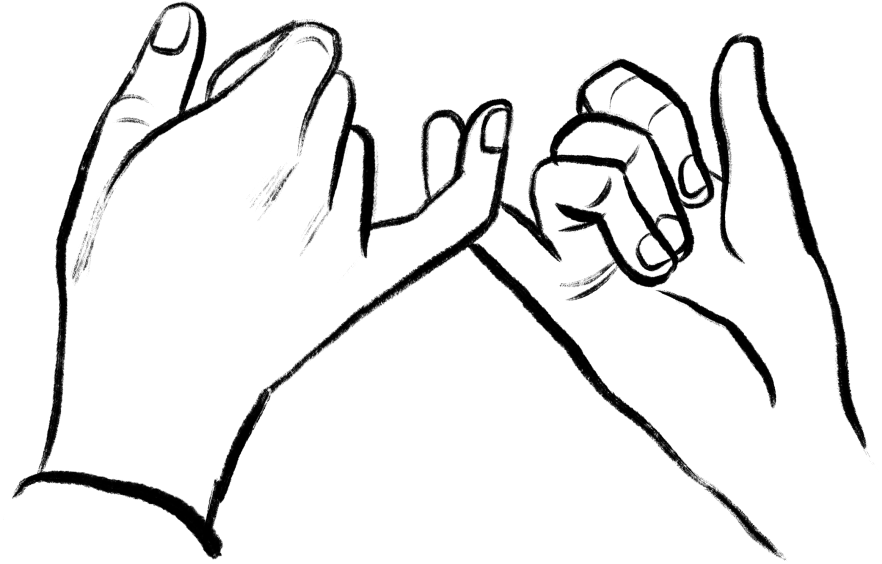
Obdi and Plano can't help noticing a small satellite on one of the students' hands. They realize immediately that the satellite has all the necessary parts needed to fix their ship.

- Hey! If we help you with your list of tasks will you give us one of those satellites? It has some parts that we need to repair our ship. A favour for a favour, Obdi and Plano states.

- Umh. Will you promise to help us with our list first? Pinky promises, one of the students asks.

Obdi and Plano don't know what the pinky promise means. But the students explain that it's a common habit on Earth to seal a deal.

Obdi, Plano and the students make a pinky promise to help each other out.



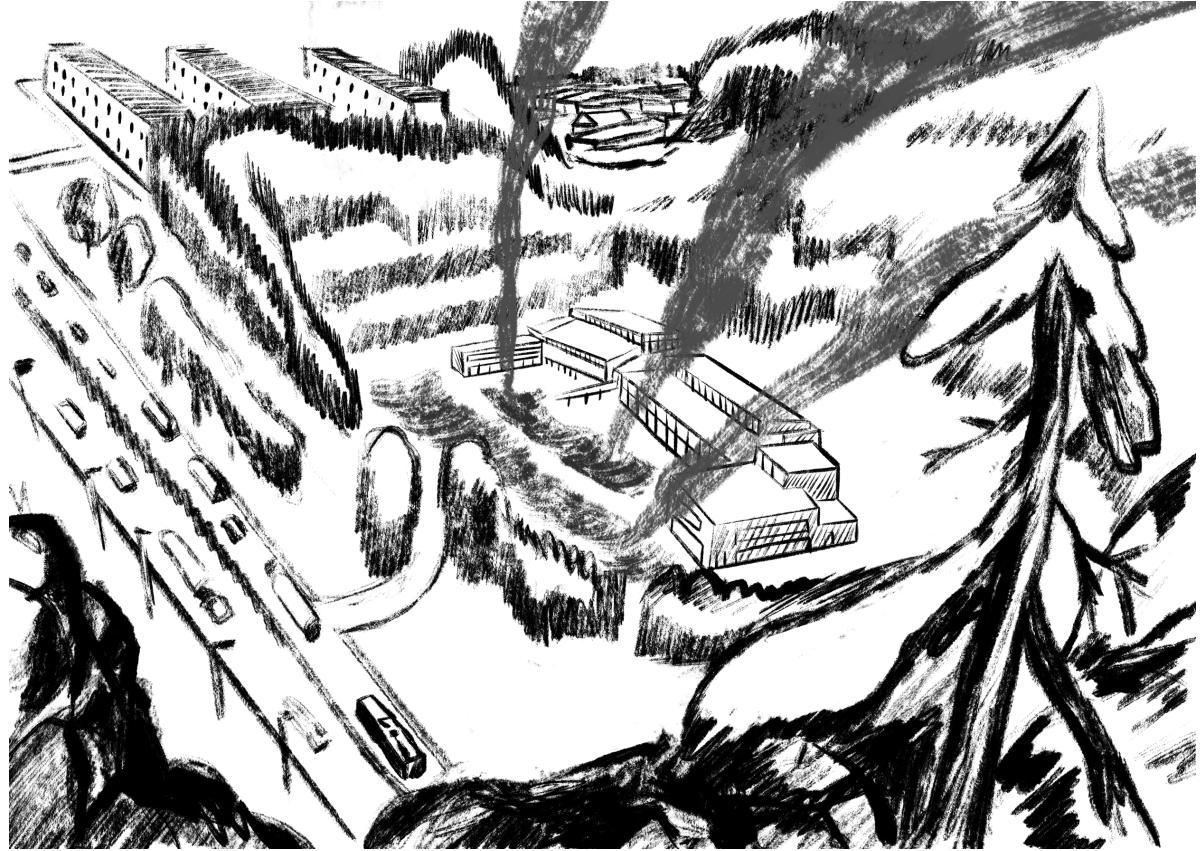
ASSIGNMENT 1:

First the aliens and the students will have to deal with the wrecked school yard. The students suggest that they use their satellite to get a better view of the yard's destruction.

Try to get the Kitsat satellite as high as possible facing the yard of the school.

How can you get the satellite as high as possible with a minimum risk of the satellite dropping or breaking? What does it take to lift the satellite above the school yard? What tools, equipment or methods can you use? Remember to follow the different graphs from your ground station while the satellite is being lifted up. What do you notice?

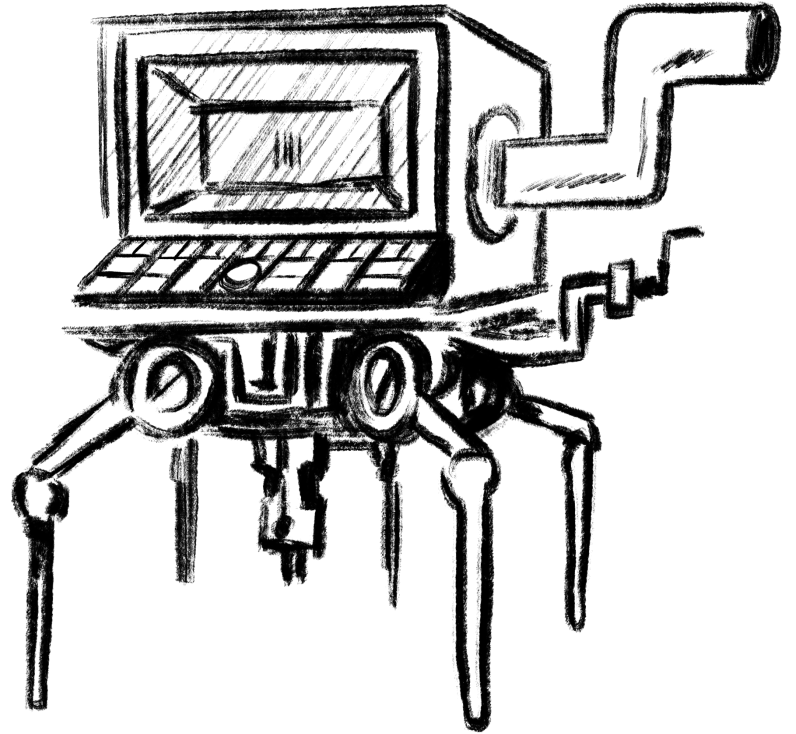
Remember to check the Courier for more detailed information!



Awesome! The satellite is high above the school yard, safe and sound. Next it's time to get a clear picture of the damage that the yard has taken and get to work fixing the yard.

Luckily Obdi and Plano find an advanced multi material 3D printer from their ship. First there has to be a plan what to make with the printer thus the printer's battery power is limited and running out.

The students give the aliens the On Board Computer of the satellite.



ASSIGNMENT 2:

Take the satellite as high as possible above the school yard. Think about the point of view carefully. Use the satellite's camera to take a picture of the school yard where you are able to see the whole yard. If there is more than one yard then take pictures of all the yards at your school.

Now analyze the photos that you have taken. After the analysis, make a plan to refurbish the school yard. What would you change about the yard? Would you remove something? What would you add to the yard? What would make the yard more appealing and fun?

Remember to check the Courier for more detailed information!

The students hand over the plan for the schoolyard to the two aliens. Obdi and Plano start their 3D printer and in a blink of an eye the yard is fixed and looking even better than before. **One of the students hands over the camera of the satellite to the aliens without taking his eyes off the yard.**

The students and the aliens examine the yard amazed and in awe. The long silence is interrupted by Obdi. Obdi wants to take a closer look at the satellite that the students used to refurbish the school yard. Obdi observes the satellite closely. Both of the aliens seem very intrigued by it. They ask the students more information about the satellite, its materials and structures.



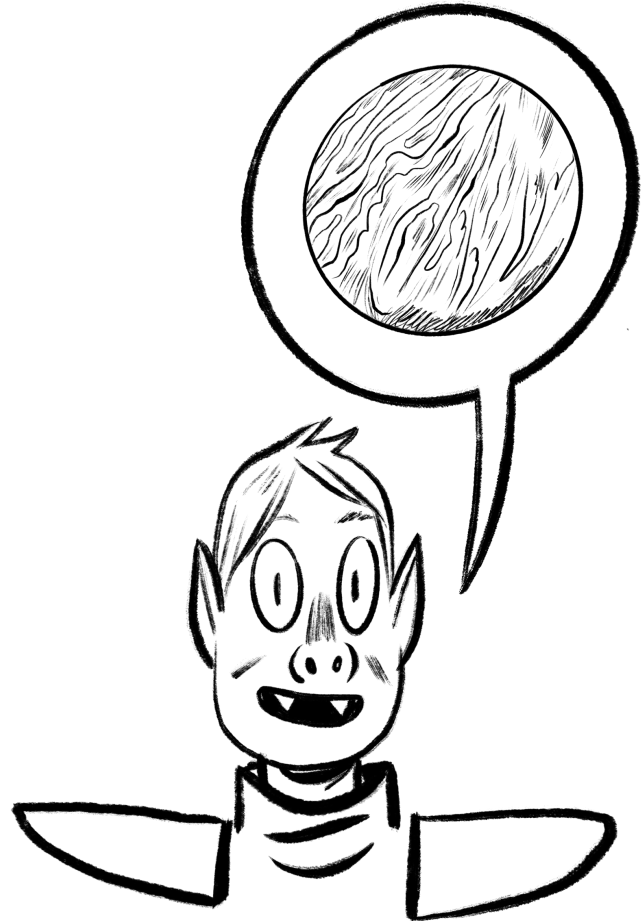
ASSIGNMENT 3:

Examine the Kitsat satellite. Come up with an information bulletin about the Kitsat satellite. Tell the aliens at least the following information:

- What kind of structure does the Kitsat satellite have? Why is this particular structure being used in the satellite?
- What kinds of materials does the satellite consist of? Why are these particular materials being used in the satellite?

Remember to check the Courier for more detailed information!

Obdi and Plano listen and their thirst for information seems to become even greater. Now they want to know the operational principles of the satellite. Their planet doesn't have any satellites so now they want to know absolutely everything about them. They are planning to suggest using satellites and their abilities back at their home planet of Elneron. **One of the students hands over the EPS (Electrical Power System) of the satellite to the aliens.**



ASSIGNMENT 4:

Explain the basic operational principles of the Kitsat satellite. How does it work?
From where does it get its power from?
How does it communicate? What kinds of features does it have? Come up with a same kind of information bulletin for the aliens as in assignment 3.

Remember to check the Courier for more detailed information!

- Oh yeah! This is exactly what we need back at Elneron, Obdi and Plano celebrates.

The students are baffled that there are no satellites at Elneron because they are a vital part of many everyday situations here on Earth. **One of the students hands over the sensors of the satellite while shaking her head in disbelief.**

- Can you tell us how you use satellites on Earth? Plano and Obdi ask.

The students begin to tell the aliens about the different situations on planet Earth where satellites are being utilized. And by a coincidence this is also one of the students' tasks on their list.



ASSIGNMENT 5:

Make a list about all the different types of situations and ways in which satellites are being utilized on planet Earth.

- If it would be mandatory to give up on one of the ways of using a satellite, what would it be and why?

Remember to check the Courier for more detailed information!

The aliens are excited about the list. They can't believe what the whole Elneron has been missing out without satellites. **One student hands over the radio transmitter of the satellite to the two peppy aliens.**

- Yeah. The satellites are pretty handy. But we are running out of ideas on how to use this one, the students says pointing to their Kitsat satellite.

- And that is also the next task on our list, the other student points out.

The student's list says that they should come up with at least one example on how the Kitsat satellite could be utilized. The students are thinking about different places and situations in which the satellite could be used. There are already few ideas about different places the satellite could be of use.

- a farm

- a zoo

- a football match

ASSIGNMENT 6:

Come up with at least one solution where the Kitsat satellite and its features could be utilized. You can choose one of the three places mentioned earlier or you can come up with a completely different place and idea. Remember to explain your idea thoroughly and clearly.

Remember to check the Courier for more detailed information!

Nicely done! The students and the aliens come up with an awesome new idea on how to utilize the satellite. The students write the idea to their notebook with a happy smile on their faces. **And of course the aliens get their part for their ship. This time the part is the antennae of the satellite.**

Obdi and Plano are looking at the parts the students have given to them.

- Only one part is missing and then we are ready to go. I miss home and my parents must be worried about me, Plano says sadly.

- What's next on your list, Obdi asks.

The students tell the aliens that they have to explore inanimate and animate nature around them. The task seems quite hard for the students and they are about to give up when Obdi gets an idea.

- Why don't we use the satellite to complete this task? It has a camera and an infrared filter. With the help of that the task is a walk in the park, Obdi states.

ASSIGNMENT 7:

Take the satellite outside and use its camera and the camera's infrared filter to examine animate and inanimate objects.

What is the difference between these two different kinds of objects?

How can you see the difference from the satellite's camera?

Which one is more dominant in your neighborhood? Inanimate nature or animate nature and why?

Remember to check the Courier for more detailed information!

Yes! The camera works perfectly and the task actually is a walk in the park. Just like Obdi said. **The students are happy to give away the last part of the satellite which is the solar panels of the satellite.**

- Awesome! Now we have all the parts that we need! We are finally ready to go home! I miss my friends and family, Plano says.

- Yeah, me too! And besides that I'm also starving, Obdi moans.

The students have a sly smile on their faces.

- Not so fast guys! You still need this to control all of the parts, one of the students says one of the students while waving the satellite's Ground Control Station.

- And we still have one more task on our list. And if your hungry you can have some of our lunch to get through the last task.

Obdi and Plano look disappointed at first but when the students promise them something to eat they brighten up immediately.



BONUS ASSIGNMENT:

Draw or write what kind of food the students offer to the aliens.

Will the two aliens like the food? How will they react if they like it or not?

Obdi and Plano tell the students about their traditional food. What kinds of foods they eat at Elneron

After a brief lunch break the aliens are ready to help the students with their final task.

The final task is a broader one. The task is affiliated with actions and senses of a human body. The first part of the task is to perform different kinds of actions with the Kitsat satellite and to compare the graphs that can be seen on the Ground Station during each action. And also the students have to measure their heart rate after each action.

ASSIGNMENT 8:

Perform the following actions with the Kitsat satellite with you. Take a photo of the person performing the action before and after the performance with the satellites IR-filter on. Consider the safety of yourself and the satellite while performing the following actions. Be careful but have fun! And remember to write down the required information for later use.

1. Measure a distance of 10-20 meters and walk the distance with the satellite. Measure your heart rate after the walk and save the graph that the Ground Station has after the walk.
2. Measure a distance of 10-20 meters and run the distance with the satellite. Measure your heart rate after the run and save the graph that the Ground Station has after the run.
3. Measure the distance of 10-20 meters and jump the distance with the satellite. Measure your heart rate after the jumping and save the graph that the Ground Station has after the jumping.
4. Measure the distance of 10-20 meters and leap the distance with the satellite. Measure your heart rate after the leaping and save the graph that the Ground Station has after the leaping.

After these actions compare the graphs from each action. Are the graphs different if you compare them? Why or why not?

Now compare the heart rate of each action. Which action raised the heart rate the most and why? Which action had the lowest heart rate and why?

Compare also the photos taken with the satellites IR-filtered camera. Are the photos different from each other? Why?

Remember to check the [Courier](#) for more detailed information!

Phew! The final task is complete! **In a celebratory manner a group of students hand over the Ground Control Station to the aliens.** The students and the aliens are in a cheerful mood as both of them get to go home! The aliens have all the parts they need to fix their ship and also the Ground Station to command the parts. The students have crossed out all the tasks on their list and they are expecting to get magnificent grades from the tasks.

The aliens and the students say goodbye to each other and head in different directions. All the students hear is a mighty roar behind them and in a blink of an eye the ship is gone.



