**Lesson 2**

* Comments on previous lesson.
* Today’s lesson activities.

**Practice 1**

**PART 1**

**Page 150** of your Book (Meet the expert)

**Activities 2, 3b**

**Activity 2 – Correct order (just write the letter):**

1. \_e
2. \_b
3. \_d
4. \_a
5. \_c

**Activity 3b – Just write the missing words:**

1. \_predict
2. \_center of
3. \_affect
4. \_teach information
5. \_remotely control helicopters
6. \_eruption
7. \_hundred meters
8. \_dangerous volcano
9. \_72 hours
10. \_policing makers

\*If you have made any mistakes, please correct your mistakes using a different colour.

**PART 2 - Green computing using next-generation nanotechnology**

**Amalio Fernández-Pacheco | TEDxZaragoza**

Watch this video twice (without subtitles) and make notes to answer the questions below.

<https://www.youtube.com/watch?v=bMWMFcDBUu4>



1. What caused this scientist’s interest in research?

The increasing concern associated to the total power consumption of computing devices worldwide and its implication for the environment.

1. What does “integrated” in the expression “integrated circuit” mean?

Because the electronic components are directly fabricated on the silicon chip.

1. What are the consequences of having powerful devices?

It wasted a lot of energy.

1. What is the relation between data centers and green computing?
2. What are Fernández-Pacheco’s research areas of interest?

He’s project is about nanotechnology and magnetism.

1. What do he and his team want to achieve?

The possibility of using nano structures in particular, magnetic nano wires

1. Why are nanowires a green alternative?

Because the magnetic materials don’t need too energy than others

1. What change does the use of nano wires in the fabrication of integrated circuits imply?
2. How do he and his team plan to fabricate 3D nano structures?

With electron microscope.

1. Is the technique already produced massively? Why?

No. It cost a lot.

1. What is the objective of trying new structures with novel functionalities?

Make possible that devices to be less dependent on energy.

Do the activities on this document and upload it on POLIFORMAT – TAREAS.

Deadline: During today’s class time

**PART 3 –** **Record your answer in 3 minutes on FLIPGRID.**

**(you will find the flipgrid tab in our TEAM) – click on the tab.**

* **Summarise** the content in the video in **1 minute**.
* **Answer** these questions in **2 minutes:**
* **What’s your opinion of the project? Do you think it is too ambitious / realistic…?**
* **What other examples of green computing do you know?**

If you don’t know any other examples, **how would you like to contribute to green computing?**

**Speaking Topic 2**

**Discuss these topics in the chat room:**

Which of the effects of global warming do you think is the most dramatic?

OR:

What can people do to be more environmentally friendly?

**Record a 1-minute summary with the main conclusions.**