

INTERNET OF THINGS

THEME	Internet and Internet of Things
FORMAT	Group (all students participate simultaneously)
PREPARATION	1 hour
ACTIVITY LENGHT	30-45 minutes
DIFFICULTY LEVEL	low

PEDAGOGICAL GOALS

To discuss what the Internet is and how people use the world wide web. To understand that the Internet connects people.

To discover the concept of Internet of Things, to understand what are those "things" within Internet of Things applications, and to awake the acknowledgement of existing applications.

NECESSARY MATERIALS

A sheet of bond paper with printed text.

Preparing:

- Prepare 5 copies with the text: "Everyday scene". See below.

Leading the activity:

Step 1 Internet:

Start a collective discussion with the class about the Internet, what it is and how we use the network. See examples of questions you can ask:

- What is the internet?
- How do we connect to the Internet?
- What can we do with the Internet?
- What is the Internet for?

Observe if students realize that the Internet is a worldwide network of computers, that we need equipment and networks to connect to the Internet.

Try to orientate the discussion to the conclusion: "the Internet is a network that connects people".

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Step 2 Internet of Things:

Read the text “Everyday Scene” out loud or ask for a student to read it.

“Everyday Scene

Imagine the following scene. You set your alarm clock to wake you up at 6:00 am to go to school and then you go to sleep. While you are sleeping, your alarm clock accesses the Internet and discovers that there will be a bus strike until 8:00 AM and that the school principal has decided to suspend the first classes. So, your alarm clock lets you sleep some more, changing its time to wake you up at 9:00 am.

As you had programmed the coffee maker to make coffee at 6:00 am, the alarm clock tells the coffee maker that you are going to have coffee at 9:00 am. You get up at 9:00 am, have your hot coffee and your smart backpack starts to flash because she accessed your diary on the Internet and discovered that you have a chemistry class today and that the book is not in the backpack. The backpack sends a message to your cell phone warning you about the missing book.”

- Divide the class into 4 groups.
- Give a copy of the text to each group.
- Ask groups to identify smart objects in the text.
- Share the outcome of the discussions.
- See if the students were able to list the smart objects: alarm clock, coffee maker, backpack, book.
- Ask the groups to discuss the characteristics of these objects. Why are they smart objects?
- Share the outcome of the discussions.
- Make sure the students have come to the conclusion that the smart objects in the Everyday Scene are thinking objects, connected to the Internet, that communicate with each other and make decisions to improve people's lives.

Discussion and reflection:

After completing the activity, discuss other examples of Internet of Things applications with your students.

See some examples of possible questions:

- You may have already imagined that there are countless possibilities for Internet of Things applications around the city. Can you imagine what an intelligent light pole would look like?
- And a smart dump, what would it be like?

Credits:

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