**Subject 7: Hydrogen fuel**

**Introduction**

During this project you are going to make a “pitch” (short and interactive presentation) for younger pupils (age 10-12).

The pupils will visit your pitch, in total 10 groups of each 10 pupils. So you have to do the pitch a total of 10 times! In the end each pupil will decide which pitch was the best/interesting/most informative, by putting a fiche in the box of the concerning Unit. The Unit with the most fiches in the end is the winner!

**Instruction**

Your topic is **Hydrogen fuel.** Hydrogen fuel is a zero-emission fuel when burned with oxygen. It can be used in electrochemical cells or internal combustion engines to power vehicles or electric devices. It has begun to be used in commercial fuel cell vehicles such as passenger cars, and has been used in fuel cell buses for many years. It is also used as a fuel for the propulsion of spacecraft.

**Some points of notice:**

* You are going to interview a sales manager form the H-Point Hyundai dealer, who are the dealer of an hydrogen fuel car: the Hyundai Nexo
	+ Phone number: 078-6322200
	+ Time: Tuesday afternoon (call on Monday to make arrangements)
	+ Place: H-point Hyundai dealer, Mijlweg 31, Dordrecht
* Show the pupils during your pitch why hydrogen is renewable energy and a sustainable way to provide us with energy.
* Invent a captivating activity for the pupils to do during your pitch!

**Some sources you can use for this topic:**

* <https://www.energy.gov/eere/fuelcells/hydrogen-fuel-basics>
* <https://www.youtube.com/watch?v=r5b6SthDbsE>
* <https://www.youtube.com/watch?v=iPheEg-K2qc>
* <https://www.eia.gov/energyexplained/index.php?page=hydrogen_use>

**Some sources with ideas for learning activities:**

* <https://globaldigitalcitizen.org/21-formative-assessment-tools>
* <http://www.queensu.ca/teachingandlearning/modules/active/12_exmples_of_active_learning_activities.html>
* <https://www.edutopia.org/blog/5-fast-formative-assessment-tools-vicki-davis>

**Schedule:**

**Quizizz in classrooms on Monday:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group | Hour | Time | Class | Teacher | Classroom |
| **2e** | **3e** | **4e** | **5e** |
| 7 | X | - | - |  | 9.20-10.10 | H2C | MRN | H101 |
| A2A | MUN | H220 |

**Workshops:**

* Monday 10.30-11.30 Solar cell (Science Truck)
* Tuesday 10.30-11.20 Bioluminescence (Science Truck)
* Tuesday 11.20-12.10 Interviewing (H211)

**Monday** (H027, between 11.20 and 13.00 in HK24)

* 13.30-15.30: working on the science project:
	+ Discuss with your unit what you want to show to the pupils
	+ Make a start with the pitch (presentation + activity) of 8 minutes
	+ Arrange an interview with company/organisation
	+ Make a list of materials you need for the activity and make sure you have this materials in time!

**Tuesday** (Start in H101, from 11.00 in H027)

* 9.00-16.00:
	+ Working on the pitch (presentation + activity) of 8 minutes
	+ Visit to Hyundai dealer for interview (afternoon)

**Wednesday** (H027)

* 9.00-12.30:
	+ Working on the pitch (presentation + activity) of 8 minutes

**Thursday** (H027)

* 9.00-14.30:
	+ Working on the pitch (presentation + activity) of 8 minutes
	+ 9.20-11.20: Rehearsal of pitch (lower class students)
	+ Use the feedback to make adjustments to your presentations

**Friday** (H027)

* 9.00-9.30:
	+ Last preparations
* 9.30-12.00:
	+ Presentations for primary school pupils