

Shaping the future of maths and science education

"Ignite Your Future" Career Discussion

Lesson Plan Three

Career Planning



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OVERVIEW:

- Lesson title: STEM and the World
- Age level: 13-18
- Time allotment: 45 minutes
- Resources: video projector and the "<u>Ignite Your Future</u>" video developed for inGenious by European Schoolnet (<u>http://www.youtube.com/watch?v=xBYkxZzt8-</u><u>M&feature=youtu.be</u>)

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INGENIOUS:

inGenious is one of the largest and most strategic projects in science education undertaken in Europe. It brings teachers and industry partners together to ensure STEM education is both up-to-date and relevant to the job skills young people need.

By improving the image of science subjects and related career options, inGenious aims to stimulate pupils' interest in, and their understanding of, the wide range of opportunities that STEM can bring to their lives in the future.

Set up in 2011 by European Schoolnet and the European Roundtable of Industrialists, inGenious brings over 40 members from industry, ministries of ed. and associations together with European teachers.

Join the inGenious Teacher Community: http://www.ingenious-science.eu



INTRODUCTION:

Society today is complex and rapidly changing so it can be very challenging for pupils to identify their career paths. Pupils' understanding of careers is often limited to the experience of people in their immediate environment (family and teachers) and their perceptions can be influenced by incomplete information and stereotypes. They can struggle to know where to begin.

The "Ignite Your future" video was developed as part of inGenious, a European Commission funded initiative managed by European Schoonet. inGenious aims to foster collaboration between teachers and industry and improve pupils' understanding of careers in science, engineering, technology and maths (STEM). The video strives to show the link between STEM achievements, real careers and school pedagogy. It also aims to address stereotypical thinking, such as STEM is geeky or not for girls. It illustrates the important role that jobs employing STEM knowledge play in shaping our future world.

Subject matter

This lesson suggests a way of managing discussion before or after a classroom screening of the "Ignite Your Future" video. The video encourages pupils to think about the wider world relevance of STEM teaching at school by covering three STEM innovations and some of the jobs roles related to them. The lesson takes this a step further by inviting pupils to think broadly about their approach to career planning.



LEARNING OBJECTIVES:

Career Planning aims to stimulate thinking about the following areas:

- Who we are and what we like
- The above as a starting point for Career Planning
- Career Planning steps

ACTIVITY DESCRIPTION:

The activity can be introduced as follows:

It is never too early to think about your future because what you do in school impacts your choices in the future. Our thinking is shaped by the opinion of others. We often do not have a full picture of a career which means our perceptions can be incomplete or dated. Today we are going the talk about some key career planning considerations. Our discussion will focus on careers that usually require an understanding of science, technology, engineering and maths (STEM).

Part 3: Career Planning

Step 1

Share the "Ignite Your Future" video. If you haven't yet done lessons one and two related to the video, host a brief discussion about pupils' perception of the careers portrayed. Ask pupils what they thought about while watching the video? What do they remember?

Step 2

Write the following question on the board: "What do you think is important when considering a career?" and invite pupils to write down their answers.

Step 3

Discuss some of the answers in class grouping them into three main categories: Who am I?, where am I going?, how do I get there? Explain these categories opening the floor to discussion. Give pupils a copy of Annex A which is a methodology developed by the Flordia Department of Education (see below). Invite pupils to talk again about some of the answers they wrote down.



Explain the importance of matching career options to your personal preferences and how these preferences may change over time due to maturity and experiences. The following question areasⁱ may be helpful.

A/ Assessment (or self awareness): who am I?

- Life priorities/selecting a lifestyle
- Knowing your interests
- Preferences and values (what is important to you?)
- Aptitudes
- Skills
- Achievements

B/ Exploration: where am I going?

- Careers information
- Labour market information
- Career search
- Connect classroom to the world of work

C/ Action: how do I get there?

- Skills to develop
- Education/training
- Self-marketing activities (networking, CVs, interview)
- Obstacles and strategies



ADDITIONAL ACTIVITIES:

inGenious Educational activities

A range of STEM education activities developed by inGenious industry partners including Philips, Shell, Volvo, Intel and Microsoft can be found on the <u>inGenious website</u>. You will need to register to the inGenious Teacher Community (takes a few minutes) to access them.

Useful resources:

On-line careers tests exist in various languages. They can be a useful resource in helping pupils to develop their self-awareness. Examples below:

- www.bbc.co.uk/science/humanbody/mind/surveys/careers/
- <u>www.toutpourreussir.com/eng/orientest/index</u> (English and French)

Role model databases and job seeker tips:

On-line resources exist in most countries. These offer insight into different types of careers and offer CV template and job seeker tips.

Examples below:

- https://vle.thebrilliantclub.org/brightside/knowledge-bank
- <u>http://www.myworldofwork.co.uk</u>

EU and UK examples below:

- Link to inGenious role model database
- https://vle.thebrilliantclub.org/brightside/knowledge-bank
- http://www.myworldofwork.co.uk/
- http://www.futuremorph.org/
- <u>https://nationalcareersservice.direct.gov.uk/Pages/Home.aspx</u>
- <u>http://www.prospects.ac.uk/</u>
- <u>http://www.careerswales.com/en/</u>
- <u>http://www.education.gov.uk/</u>
- http://www.shu.ac.uk/research/cse/about-us/stem-unit
- http://www.wisecampaign.org.uk/





ANNEX:

Annex A: Career Planningⁱⁱ

- A) Assessment (or self awareness): who am I?
- Life priorities/selecting a lifestyle
- Knowing your interests
- Preferences and values (what is important to you?)
- Aptitudes
- Skills
- Achievements
- B) Exploration: where am I going?
- Careers information
- Labour market information
- Career search
- Connect classroom to the world of work
- C) Action: how do I get there?
- Skills to develop
- Education/training
- Self-marketing activities (networking, CVs, interview)
- Obstacles and strategies

Contact: ingenious@eun.org

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i http://www.fldoe.org/workforce/ced/ ii http://www.fldoe.org/workforce/ced/

