STEM Alliance – Scientix Webinar with IBM

“Integrating IBM SkillsBuild for Students”

Thursday, 10 February 2022, 17h
(Central European Time / Brussels Time)
Agenda

1. Welcome and Introduction to the 2022 STEM Discovery Campaign  
   by Björn Bachmann, EUN

2. Demonstration of the IBM SkillsBuild Platform  
   by Evelina Parnerud and Sam Forrest, IBM

3. Introduction to the Lesson Plan  
   by Björn Bachmann, EUN

4. Q&A Session  
   by Björn Bachmann, EUN

5. Wrap-up and Goodbye  
   by Björn Bachmann, EUN
The STEM Discovery Campaign has been funded under the European Union’s H2020 research and innovation programme – project Scientix 4, coordinated by European Schoolnet (EUN). The content of the document is the sole responsibility of the organizer and it does not represent the opinion of the European Commission (EC), and the EC is not responsible for any use that might be made of information contained.
STEM ALLIANCE - IBM SKILLSBUILD COMPETITION 2022
STEM Alliance - IBM SkillsBuild Competition 2022

1. Register and Prepare the Lesson Plan
2. Fill out the Lesson Plan Template
3. Submit your Lesson Plan to the Competition
4. Spread the Word!
5. Win your Prize!

Find more information on: [www.stemalliance.eu/ibm-skillsbuild-competition](http://www.stemalliance.eu/ibm-skillsbuild-competition)
Resources for Teachers

**Career Readiness Toolkit for Teachers**

Download the **Career Readiness Toolkit** for Teachers which includes a lesson plan on career exploration and planning.

**Course Catalogue on Workplace Skills**

Discover the **Course Catalogue** on Workplace Skills.
Demonstration of the IBM SkillsBuild Platform

Evelina Pärnerud, Corporate Social Responsibility Lead, IBM Northern Europe
Sam Forrest, Corporate Social Responsibility Assistant, IBM Europe
IBM SkillsBuild for Students

STEM Alliance - IBM SkillsBuild Competition 2022

Björn Bachman, STEM Alliance

Evelina Pärnerud, Corporate Social Responsibility Lead, IBM Northern Europe

Sam Forrest, Corporate Social Responsibility Assistant, IBM Europe
Evelina Pärnerud
Corporate Social Responsibility Lead
IBM Northern Europe

Sam Forrest
Corporate Social Responsibility Assistant
IBM Europe
What is IBM SkillsBuild for Students?

Fun, self-paced learning for students

Your students will get access to free, online learning in a single platform, built just for them by IBM experts and other tech leaders. Plus, they can earn badges to show what they’ve achieved.

Free resources and curriculum enhancements

You’ll get robust resources and curriculum enhancements, designed just for teachers, to help you bring technology and workplace skills learning to life in your classroom.

Support and administrative capabilities

You’ll be able to track student progress and evaluate student success with the educator dashboard, and get additional support from IBM digital success managers.
1.6 Million
Learners are gaining digital skills with IBM SkillsBuild

119K
Industry recognised badges have been issued over SkillsBuild

170
Learners in 170 countries (and counting) are using SkillsBuild

3.5 Million
Hours of learning have been completed by SkillsBuild learners
Mix of Unique IBM-informed and Curated Content

- **75+ hours** of self-paced, trackable content over 44 unique courses
- **20+ badges** and growing
- **Nearly 200** additional curated channels on key topics
- **Over 200** teacher-facing resources

### Technical Skills

- AI Foundations (ISTE + IBM collaboration)
- IBM AI Foundations for Educators (MindSpark + IBM collab)
- Build Your Own Chatbot
- Quantum Computing
- IBM Blockchain Essentials
- IBM Cloud Essentials
- Cloud Core
- Cybersecurity Fundamentals
- Data Science Foundations, Level 1
- Big Data Foundations Level 1
- Big Data Foundations Level 2
- Applied Data Science with Python Level 2
- Hadoop Foundations – Level 1

### Workplace Skills

- Working in a Digital World: Professional Skills
- Explorations into Mindfulness (Oxford University + IBM)
- Enterprise Design Thinking Practitioner
- Enterprise Design Thinking Co-Creator
- Diversity in the Workplace
- Job Application Essentials (NAF + IBM collaboration)
- Fundamentals of Agile
- Basic Principles of Design (Adobe + IBM collaboration)
Choose the right tools to manage data

Where do you begin? There are dozens of useful data science tools and platforms! Here’s a list of some popular and open source platforms that you can use to begin your own data science journey.

Click the following sections to learn more about tools to manage data.

R is a good place to start

Python works for general purposes

MATLAB helps crunch numbers

Apache Spark supports big data and machine learning

Cloud computing—at your service!

Any traditional service can be delivered through the cloud. This concept is called anything as a service, or **SaaS**.

Let’s compare the three most popular service models of cloud computing: software as a service (**SaaS**), platform as a service (**PaaS**), and infrastructure as a service (**IaaS**). Here’s a diagram that shows you the kinds of tools and data that fit into each model.
Cybersecurity Fundamentals Deep Dive

• 6 Modules
• Mixing Traditional & Dynamic Learning
• Covering
  • Threats
  • Attack Types
  • Social Engineering
  • Security Strategies
  • Cryptography
• Course Progression via Quiz Completion

2nd Most Popular Badge
~ 6 Hours Taken
15,000 Completions
IBM SkillsBuild Module Focus

Digital Technology

From Blockchain to Cybersecurity learning on the future of technology.

Professional Skills

Presenting, Collaboration, Agility, Critical Thinking and Interpersonal skills. Crucial for the modern world.

Mindfulness

Important Skills to develop in an increasingly complex and stressful world.
Introduction to the Lesson Plan

Björn Bachman, STEM Alliance
Lesson Plan Development

- Stand-alone descriptions of educational activities
- Outlining all the employed tools and resources
- Why do we use them?
  - Organization
  - Lesson evaluation
  - Guidance for other teachers

- Good Resources:
  - Criteria of effective scenarios in problem-based learning (PBL)
  - A guidebook tool for learning scenarios design in initial teacher education
**Basic Information**

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**A STEM Alliance – IBM SkillsBuild Lesson Plan**

**Author(s)**

**School/Organisation**

**Overview**

Please summarize your Lesson Plan in 1-3 sentences. This will be used as a description when publishing your Lesson Plan on our websites and repositories.

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**REPLACE THIS SENTENCE WITH THE TITLE OF YOUR LESSON PLAN**

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### Key Elements

<table>
<thead>
<tr>
<th>Subject(s)</th>
<th>List all the subjects that this Lesson Plan is intended for. If this is an interdisciplinary lesson, list multiple subjects.</th>
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</thead>
<tbody>
<tr>
<td>Module(s)</td>
<td>Indicate below which of the three IBM SkillsBuild modules your Lesson Plan addresses:</td>
</tr>
<tr>
<td></td>
<td>1. Digital Technology</td>
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<td>2. Mindfulness</td>
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<td>3. Professional Skills</td>
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<th>Students’ Age Range</th>
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<td>Preparation Time</td>
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<tr>
<td>Teaching Time</td>
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Learning Objectives

- What the learner will know/be able to do
- Based on learners’ age, needs and abilities
- Learning objectives should be “SMART”
- Good resource for defining learning objectives: Blooms Taxonomy Levels

**Learning Objectives**

*Describe in some bullet points what you would like to achieve with your students by the end of the lesson.*

- Students will …
- Students will …
- …

**Specific:** describes concrete conditions and clear results.

**Measurable:** it can be measured/examined whether the learning objectives have been achieved.

**Acceptable:** formulated in such a manner that significant to learners.

**Realistic:** feasible and attainable within the available means, time limits and provisions.

**Time-bound:** set a moment by which it must have been achieved
Lesson Plan / Activities

- Implementation procedure
- Development of knowledge and/or competences

**Lesson Plan**

Describe here in detail all the activities during the lesson and the time they require. If you are using any external documents, please scroll to the end of the document and add them to the Annex. Add more rows to the table if needed.

<table>
<thead>
<tr>
<th>Name of Activity</th>
<th>Procedure</th>
<th>Time</th>
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**Link to IBM SkillsBuild Lesson Plan (optional)**

Please provide the link to the Lesson Plan on the IBM SkillsBuild Platform.
Lesson Plan / Activities

• Directly related to the learning objectives
• Enable learners to: engage, practice, gain feedback on specific progress
• Learners’ abilities, needs and learning styles
• Estimate the time needed

• Useful questions:
  • What will I do to explain the topic?
  • What will I do to illustrate it in a different way?
  • How can I engage learners?
  • What are some relevant real-life examples or situations that can help learners understand the topic?
  • What will they need to do to understand the topic better?
Teacher’s Remarks

Add here your comments and evaluation AFTER the implementation of this lesson, if any.

Annexes and Heading

ANNEXES (IF NEEDED)

A thorough and complete list of all the materials used will be asked from all teachers. Those materials will be cited as Annexes and they can be further cited in the Lesson Plan.
Questions & Answers
2022 STEM Discovery Campaign

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Feedback Survey

https://forms.gle/bJXvEhWddyThdhcV8
Thank you!