

 SUBJECT	ICT
 LESSON TOPIC	Cyber Security
 GRADE	15-18 years
 LEARNING OBJECTIVES	<p>Students will be introduced to cyber security and its important role in keeping our personal data protected online.</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> • Explain what cybersecurity is. • Understand the importance of cybersecurity. • Learn about R.A.T and its capabilities as well as other malicious software. • Understand the overall process of threat modelling and its purpose.
 TIME REQUIRED	60 minutes
 PREPARATION	30 minutes



MATERIALS

- Interactive board
- Device with Internet connection for each student
- Account with [Brainscape](#)
- Account with [Legends of Learning](#)
- Handout
- Quiz
- Resources:
 - Videos : [Cybersecurity 101 | PBS LearningMedia](#)
 - Links: [L1 Slide Deck - The Security Mindset - Explain and Elaborate - Google Slides](#)



TECHNIQUES

- General Discussion with students.
- With computer –videos and online quiz



FORM OF WORK

- Group Work

LESSON PLAN OVERVIEW

Preparation:

- Gather relevant resources and videos for the lesson.
- Set up instructional assignment with [Legends of Learning](#) (see explanatory tool sheet n°16)
- Prepare flashcard activity with [Brainscape](#). (see explanatory tool sheet n°5)
- Prepare Handout for homework

Introduction:

In today's world where everything is online, cybersecurity has become a very important issue both for people and businesses. Understanding cyber threats and different malicious software can help navigate online environments in a safer manner. Cybersecurity - the state of being protected against the criminal or unauthorized use of electronic data, or the measures taken to achieve this – protects our personal and financial data from malicious cyberattacks.

Implementation

Engage students by asking the following question: “Are there any computer systems that are safe from getting hacked”? Discuss their answers with them and ask if they know about cybersecurity.

- Share with students the instructional video about Cybersecurity 101.
- Start a discussion with students about what they have learned in the video.
 - Can we trust that our private life is secure online?
 - Are there ways we can protect ourselves?
 - How do we prevent cyberattacks?

- Load up the animation video you have prepared on Legends of Learning –“Digital Forensics” and let students watch.
- Explain to students what is a R.A.T. and the different malicious software that hackers use to attack computers.
- What information do cyber criminals steal?
- What do they do with it?
- Share with students the presentation about Cybersecurity and Threat modelling.
- Explain to students what threat modelling is and its purpose.
- Discuss with students some of the ways it can be applied in real life.
- Have students complete the flashcard activity you have created on Brainscape. Discuss the correct answers together as a group.

Summary:

- Summarize the contents of the lesson.
- Take questions/concerns from students.
- Provide feedback and clear out any misconceptions.

Homework: Cyberattacks in the news

Ask students to search in the news for any recent big cyberattacks that got publicized. Instruct them to read the story and write a report covering the following questions: What kind of a cyberattack was it? How did the cyber criminals exploit the system? How does the incident highlight the need for cyber security?