



Lesson plan #2

Threats to Bees

City / Country Messini/Greece

TITLE

Factors that affect bees' life

TARGET GROUP

Students age 15-18 years old

DURATION

2 school hours (90 min)

EXPECTED LEARNING RESULTS (AIM AND OBJECTIVES)

Students will be able to

- mention threats that are harmful to bees
- classify these threats according to their hazard
- realize negative impacts of specific agricultural practices to bees
- suggest ways of mitigating the negative impacts
- create a digital poster of protective measurements for bees

STUDENT KNOWLEDGE AND PERCEPTIONS

Bees biology, common agricultural activities, presentation skills. Moreover, students are expected to have basic digital skills, including the ability to operate a computer or digital device, navigate the internet to search for information, use digital learning materials such as videos and worksheets, collaborate with peers using shared digital tools, create simple digital content (e.g. presentations or digital posters), and apply basic principles of safe and responsible technology use.

CLASSROOM ORGANIZATION AND REQUIRED INFRASTRUCTURE

The lesson takes place at pc lab. Students are organized in working teams of 3 members. Internet connection is required.



MATERIALS & SOFTWARE

Internet browser, Gmail account, Google docs (Word, power point), poster creator (canvas)

DESCRIPTION (BRIEF DESCRIPTION OF THE TEACHING PROCESS)

This lesson engages students in exploring the key threats facing bees and raises awareness of the importance of protecting pollinators for biodiversity and food sustainability. The lesson begins with a brainstorming activity, where students reflect on the question “What can harm bees?” and share their ideas, which are recorded and discussed collectively. Students then work in small groups of three and are introduced to the topic through the video “The War on Bees”, which provides an overview of the main dangers affecting bee populations. Guided by a worksheet, students identify and categorize these threats, fostering critical thinking and collaborative learning.

In the next phase, each group selects one specific threat to bees and conducts online research to examine its impact, the factors that influence the severity of the damage, and possible solutions or alternative practices. Students document their findings in the worksheet and synthesize information related to environmental, agricultural, and human-induced factors. The groups then present the results of their research to the class using a shared PowerPoint presentation, encouraging communication skills, peer learning, and active participation.

Finally, students collaborate to create a digital poster highlighting alternative practices and protective measures that support bee conservation. This creative activity helps transform knowledge into actionable messages and promotes environmental responsibility. The lesson concludes with a reflective discussion, during which key ideas and learning outcomes are summarized, reinforcing students’ understanding of the topic and emphasizing the collective role individuals and communities play in protecting bees.

WORKSHEET #1: Protecting Bees

Group:.....

Students' Names: 1).....
2).....
3).....

Instructions

After watching the video "The War on Bees", complete the following activities with your group.

Activity 1 - Threats to Bees

Complete the table below by identifying threats to bees and rating how dangerous you believe each one is (0 = not dangerous, 5 = extremely dangerous).

Threats to Bees	How dangerous do you think it is? (0-5)
1.	
2.	
3.	
4.	
5.	

After the class discussion, circle the threat your group will focus on:

Monoculture / Chemical pesticides / Enemies & diseases / Air pollution & climate change / Lack of flowering plants

Activity 2 - Impacts of the Threat

Search online with your group and record information about the impacts of the selected threat on bees and the factors that influence the severity of the damage.

Add the results of your research to a shared class presentation.

Threat	Impacts on Bees	Factors that Influence the Severity of the Damage

Activity 3 – Solutions and Alternative Practices

Search online with your group and record alternative practices or solutions that can help reduce or prevent the threat you are studying.

Add the results of your research to the shared class presentation.

Threat	Alternative Practices / Solutions

Activity 4 – Creating a Digital Poste

Work collaboratively with the other groups to create a digital poster presenting measures to protect bees.

Use Canva to design an attractive poster that includes the solutions you identified.

Use the information collected and shared in the common presentation.



Useful links for your research:

1. <https://www.greenpeace.org/greece/epirease/prostateuoume-melisses/>
2. <https://www.kathimerini.com.cy/gr/periballon/i-alogisti-xrisi-fytofarmakon-i-megalyteri-apeili-gia-tis-melisses>
3. [Δηλητηριάσεις μελισσών από φυτοφάρμακα](#)
4. [Wikifarmer/Μελισσοκομία](#)
5. <https://blog.farmacon.gr/katigories/eidiseis/eidiseografia/item/3825-epiptoseis-tis-klimatikis-allagis-stin-ygeia-ton-melisson>
6. <https://dasarxeio.com/2014/11/16/17929/>