OPCW Modules for Universities: Educator Resources

A guide for educators on using the OPCW's modules for universities.

August 2023







Table of Contents

Click on an entry in this table to jump to a section in this document.

Course overview	
Pedagogical Approach	4
Learning Outcomes	4
Content Flexibility	5
Discipline-Specific Integrations – Learn More "Branches"	5
Case Studies	6
What is H5P?	7
Course Presentations	7
Interactive videos	7
Image Hotspots	
Interactive Books	8
Uploading H5P Files to Moodle	9
Downloading H5P files	9
Uploading H5P files	9
Uploading Files as Moodle Activities – Not Editable on Moodle	9
Uploading files to the Content Bank – Editable	11
Editing H5P files	15
Opening files in an editor	15
Opening files to edit in Moodle	15
Opening H5P files to edit in Lumi	16
Using the H5P editor	17
Undoing changes made to H5P files	17
Navigating through interactive books	17
Editing course presentations	
Editing other items	20
Saving H5P files	21
Important notes on design	22
General style guidelines	22
Colours	

23
23
24
24
24
24

Course overview

This course of a set of three modules, each of which consists of three lessons. The course is intended for both students and educators in universities in both chemistry and other subjects, as well as any interested public, including scientists and policy makers. The purpose of this course is to foster the responsible and peaceful uses of chemistry and improve knowledge of the Chemical Weapons Convention and the OPCW's mandate, with the goal of leading to a higher engagement in disarmament affairs and a greater interest in jobs at the OPCW.

Content for the OPCW E-learning Modules for Universities was created by the King's Centre for Visualization in Science in Canada - Project Manager Ashley Elgersma, Director Peter Mahaffy. Technical review and support were provided by the OPCW Technical Secretariat and members of the OPCW's Advisory Board on Education and Outreach (ABEO). Funding for these modules was provided by the OPCW (Module 1) and the European Union (Modules 2 and 3).

Module 1: The OPCW and its Mission	Module 2: Chemical Weapons: Definitions and History	Module 3: Chemical safety and security, and ethics
Lesson 1.1: Lesson 1.1: Bringing the world together to tackle chemical weapons	Lesson 2.1: What is a chemical weapon?	Lesson 3.1: Dual uses of chemistry
Lesson 1.2: Inside the OPCW	Lesson 2.2: Origins of chemical weapons	Lesson 3.2: Chemical safety and security
Lesson 1.3: Function and mandate of the OPCW	Lesson 2.3: Chemical weapons since World War I and the importance of preventing re-emergence	Lesson 3.3: Responsible use of chemistry

The lessons are organized as follows:

Pedagogical Approach

The need for this course and the approach it should take was articulated by OPCW's Advisory Board on Education and Outreach. <u>ABEO produced a supplemental paper</u> in 2018 for the OPCW Director General that shaped the pedagogical approach taken in creating this course. KCVS has endeavoured to fully incorporate the evidence-based practices in education and outreach called for in the report. This includes the use of active learning strategies, interactivity, and "backwards design" as an integral part of designing educational materials.

Learning Outcomes

This course has been developed using a "backwards design" approach, where content and evaluations have been written according to specific learning outcomes. These learning outcomes are designed to achieve higher levels of learning through active engagement with the materials and aim to achieve levels of understanding of the content beyond surface-level understanding.

Learning outcomes are presented at the beginning of each lesson and branch and are revisited before the quiz at the end of each lesson.

Content Flexibility

Content in the modules and lessons is designed so that the lessons can be taken in any order. Additionally, the course can be taken as a whole, or certain sections can be used on their own. Users can choose the path through the material that they find most interesting, or, if they are using the content in the context of another course, they can work through only certain lessons or topic that fit into their learning. This allows educators to be able to pick the content they would like to integrate into their course material, without the need to include material that is not relevant or large amounts of background information.

Discipline-Specific Integrations – Learn More "Branches"

In addition to the main lessons of the modules, the content also includes discipline-specific "branches" in the lesson which allow users to more deeply explore how the content of the lesson relates to a specific topic. These topics relate to common subjects in university curricula across disciplines and include subjects such as biology/biochemistry (biological pathways affected by chemical weapons), history (investigations into primary sources describing ancient uses of chemical weapons), and art (artistic representations of chemical weapons), among others.

If working through an entire lesson, users are prompted at certain points to choose to either continue with the main general interest course content, or to explore the connections the content has to a specific discipline. After completion of the branch, users can return to the same point in the lesson to continue with the course. Branches are also flexible, and a single branch can also be used on its own without the need for too much background information. Users completing the modules on their own will have the option to complete as many branches as they desire, or none at all.

The length of the branches vary, and some branches have their own case studies and evaluations. Other evaluations in the lesson do not include learning outcomes from branches. A full list of branches is provided below:

Module 1: The OPCW and its Mission

Lesson 1.1: Lesson 1.1: Bringing the world together to tackle chemical weapons Branch 1.1.1: Learn about how advancements in chemistry affect the implementation of the CWC

Branch 1.1.2: Learn more about the need for international cooperation and dynamic agreements in disarmament negotiations

Lesson 1.2: Inside the OPCW

Branch 1.2.1: Learn more about professional opportunities at the OPCW

Branch 1.2.2: Learn more about the meaning behind the OPCW's buildings.

Lesson 1.3: Function and mandate of the OPCW

Branch 1.3.1: Learn more about the techniques for chemical warfare agent detection used during inspections

Branch 1.3.2: Learn more about what it really means to "destroy" a chemical weapon

Module 2: Chemical Weapons: Definitions and History

Lesson 2.1: What is a chemical weapon?

Branch 2.1.1: Learn more about the legal language of the Chemical Weapons Convention that defines chemical weapons

Branch 2.1.2: Learn more about how nerve agents affect the nervous system

Lesson 2.2: Origins of chemical weapons

Branch 2.2.1: Learn more about the connections between developments in the field of chemistry and the development of chemical weapons.

Branch 2.2.2: Learn more about the primary sources that indicate historical uses of chemical weapons

Lesson 2.3: Chemical weapons since World War I and the importance of preventing reemergence

Branch 2.3.1: Learn more about how the properties of a chemical weapon affect the outcome of a chemical weapons attack

Branch 2.3.2: Learn more about the representation of chemical weapons and their use in art

Module 3: Chemical safety and security, and ethics

Lesson 3.1: Dual uses of chemistry

Branch 3.1.1: Learn more about other dual-use materials or technologies

Lesson 3.2: Chemical safety and security

Branch 3.2.1: Examine more deeply the role the Chemical Weapons Convention has in maintaining chemical safety and security around chemical weapons

Lesson 3.3: Responsible use of chemistry

Branch 3.3.1: Learn more about how different ethical theories can be used to study the ethics of chemical weapons

Branch 3.3.2: Learn more about how practices in chemistry can be made more green and sustainable

Case Studies

Most lessons, and some discipline-specific "branches" include case studies that put the content in the context of a story. Case studies provide a point of entry into the content, and students can continue to connect their learning back to the case study throughout the lesson.

Wherever possible, case studies are real-world examples to provide context for the material that students can apply to the world around them.

What is H5P?

The OPCW modules have been created in H5P (HTML5 Packages), which is a free open source framework for creating online, interactive learning resources that can be modular and compatible with Moodle and most other Learning Management Systems (LMS). There are many H5P content types, and several of them have been used in these modules. The course presentation, interactive video, image hotspot, and interactive book content types have been used in these modules, along with several question types, including drag and drop, drag the words, multiple choice, exportable text, and true/false, which can be embedded within other content types. The full list of H5P content types is available at https://h5p.org/content-types-and-applications.

Course Presentations

Most of the main sections in the course, as well as the branches, are created using the H5P **Course Presentation** content type. These are very similar to conventional presentations with slides, but also include interactivity such as image hovers, a variety of quiz questions (multiple-choice, T/F, drag and drop, etc.), links to other sections, space for long-answer responses, and buttons to reveal more text, images, videos, or links.

Before you answer this question, stop and think: Would you consider glyphosate to be a chemical weapon? Why or why not? Is your opinion consistent with the definition in the Chemical Weapons Convention?	Is glyphosate a chemical weapon under the definition given in the Chemical Weapons Convention? Ves No Check
3 Definition in CWC	

Course presentations contain most of the information in the course and can easily be navigated using the navigation below the slide. Each slide also has a title, which can be shown on the menu on the side and used for accessibility and navigation.

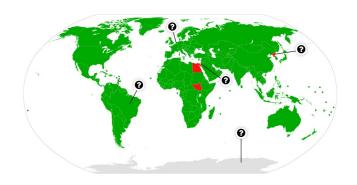
Interactive videos

Several **Interactive Videos** have been integrated throughout the modules. This content type allows for interactivity to be added to an embedded video. Interactivity can include a variety of question types, or text that be added to the video and appear at specific times in the video. These interactive elements can automatically pause the video or remain on the screen as the

video plays and can show up as questions or text that cover a portion of the screen, or buttons that make these questions or text appear.

What are scheduled chemicals?	Watch later	Share
Could a chemical that has both a common industrial use and a use as a chemical weapon be a Schedule 1 chemical?		
O Yes		
O No		
Check		
Sarin, sulfur mustard Training sim	ulatio	n nuTube
Miner Halcos		

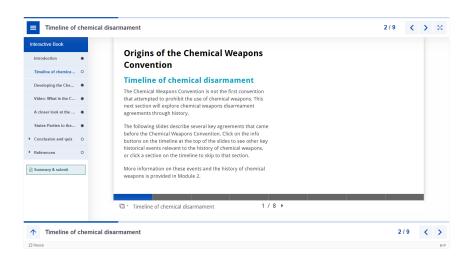
Image Hotspots



The **Image Hotspot** content type adds interactive buttons to images that provide students with more information on the content in that area of the image.

Interactive Books

The **Interactive Book** content type is used for the main lesson files in the modules. This content type is made of several "pages", each of which are collections of other H5P content types. Each of the lessons files is one interactive book, that contains one course presentation, interactive video, or image hotspot per page. In some cases, text is inserted below the other elements to direct students to branches within the lesson.



Uploading H5P Files to Moodle

H5P files can be transferred from one LMS to another easily by downloading from one and then re-uploading the files to the other. There are two main ways to upload the files to Moodle, and only one of these ways can be used if the files are going to be edited on Moodle.

Downloading H5P files

To download the H5P file from Moodle, navigate to the file to be download, and locate the "reuse" button on the bottom left of the item. Click on this button, and then select "download as .h5p file", which should begin to download the file to the download folder.

Refere	nces O	
E Summa	nry & submit	🗐 ' Is thio
	s this a chemi	cal weapon?
C Reuse		

Uploading H5P files

There are two ways to upload H5P files to Moodle. Simply uploading the files as a Moodle activity is much simpler, but files uploaded in this way cannot be edited in Moodle. For files to be edited on Moodle, they need to be uploaded to Moodle's "content bank".

Uploading Files as Moodle Activities - Not Editable on Moodle

The fastest way to upload H5P files to Moodle is to upload them as Moodle Activities. This method is straightforward, but files uploaded in this way cannot be edited on Moodle. Follow the steps below to upload H5P files as Moodle Activities:

1. Make sure "edit mode" is turned on at the top right corner of the window.

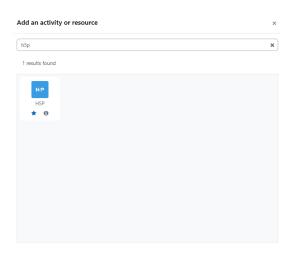


2. On the main course page, click "Add an activity or resource."

OPCW Sandbox Course Settings Participants Grades Reports More ~

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lidden fro	m students	
uden Tro	in students	
	Add an activity or resource	
+ /	add an activity of resource	

3. Scroll down or search for "H5P" and click on the H5P icon. To make finding H5P activities easier to find, click the star on the icon, and it will appear in the "starred" tab next time.



4. Add a name for the H5P activity and upload the file by dragging it into the space provided, or clicking the file icon (highlighted in red)

Adding a new H5Pe

		Expa	nd all
✓ General			
Name	0	Lesson 2.1	
Description			
		Display description on course page 😧	
Package file	0 0	Maximum file size: 500 MB, maximum number of f	files: 1
		٢	
		You can drag and drop files here to add them.	

5. If you would like users to be able to download H5P files, open the "H5P options" menu, and make sure the "allow download" box is checked.

✓ H5P options	
	Allow download
	Embed button
	Copyright button

6. Click "save and display" to add the activity to Moodle and display the file. If there are any errors or missing library files, they will appear. Otherwise, the H5P file should be displayed. Click through the H5P file to make sure all images have been loaded in the Moodle.

>	Activity com	oletion		
>	Tags			
>	Competencie	s		
		Send content change notifi	cation 😧	
		Save and return to course	Save and display	Cancel

Uploading files to the Content Bank – Editable

To be able to edit H5P files in Moodle, they need to be uploaded to the Content bank. Please note, that files can only be edited by the user who uploaded them. To do this, follow these steps:

1. On the menu below the course title, navigate to more > content bank.

OPCW Sand	lbox		
Course Settings	Participants Grades Reports	More 🗸	
		Question bank	
E Announce	ements	Content bank	
Hidden from students		Course completion	
		Competencies	
Open all	Close all	Filters	
Instructions: Clicking	on the section name will show / hide the	Accessibility toolkit	
		Recycle bin	
	Module 1 Main L	Course reuse	\odot
	Module 1 Bran	ch Files	0

2. In the content bank, click "upload", and drop or select the appropriate file. Make sure the file has a name that will make it easy to identify.

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PCW Sandbox							\$
1							
Content name 🗢		Places linked \$	Last modified ¢	Size 🖨	Type ♦	Author \$	
2.1 - 2 - How does the C	hemical Weapon						
s Convention define a ch		1	18/04/23, 10:16	5.2 MB	Archive (H5P)	Ashley Elgersma	
		1		5.2 MB	Archive (H5P)		×
s Convention define a ch pload	emical weapo				Archive (H5P)		×
pload	emical weapo	Maximun	10:16	iles: 500 MB			×
pload	emical weapo	Maximun You can	10:16	iles: 500 MB			X

3. Return to the main course by clicking "Course" on the menu below the course title. Make sure edit mode is turned on in the top right of the window and click on the "Add an activity or resource" button.

Cancel Save changes

OPCW Sandbox

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_				

4. Scroll down or search for the "H5P" Moodle activity and click on it.

Add an activity or resource	×
h5p	×
1 results found	
H-P HSP	
* 0	

5. Type in a name for the lesson and click on the file icon at the top left of the space to upload a file.

Adding a new H5Pe

	Expand all
✓ General	
Name 🔒	Lesson 2.1
Description	1 A • B <i>I ≰</i> • Ⅲ Ⅲ № % ∰ ∭ 2
	Display description on course page
Package file 🛛 🛿 🕄	Maximum file size: 500 MB, maximum number of files: 1
	You can drag and drop files here to add them.
	L

6. In the file picker, click on "content bank" on the menu on the left side, and locate the file that has been previously added to the content bank.

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💁 Upload a file						Â
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RL Master						
n Content bank	2.1 - 2 - How	2.1 - 3 - Is thi	2.1 - 4 - Cate	2.1 - 5 - Conc		
				* =		
	2.2 - 1 - Intro	2.2 - 2 - Anci	2.2 - 3 - Che	2.2 - 4 - Che		
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	22-5-Lerc	23 - 1 - Intro	23 - 2 - Che	23-3-Cha		

7. If you would like users to be able to download H5P files, open the "H5P options" menu, and make sure the "allow download" box is checked.

~	H5P options	
		Allow download
		Embed button
		Copyright button

8. Click "save and display" to add the activity to Moodle and display the file. If there are any errors or missing library files, they will appear. Otherwise, the H5P file should be

displayed. Click through the H5P file to make sure all images have been loaded in the Moodle.

>	[,] Tags				
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Editing H5P files

H5P files can be edited on Moodle, or a desktop editor. Once files have been opened in the editor, both methods use the same interface to edit the files.

Opening files in an editor

Opening files to edit in Moodle

The H5P plugin for Moodle includes an H5P editor that allows for files to be edited directly in Moodle, without the need for downloading and re-uploading the H5P files. Files must have been <u>uploaded to the content bank</u> and can be edited on Moodle by the user who has uploaded the files using the following steps:

1. Navigate to the content bank by clicking more > content bank on the menu below the course title.

	Jana					
ourse	Settings	Participants	Grades	Reports	More 🗸	
۵					Questior	n bank
	FORUM				Content	bank
Ē		cements 🖋			Course o	completion
Hidde	en from student	s			Compete	encies
	_				Filters	
H-P	H5P	3.1 Test 🖋			Accessib	ility toolkit
					Recycle I	bin
					Course r	euse
-	Add an a	activity or resour	ce			

OPCW Sandbox

2. Find the file you would like to edit and click to open it. Displaying the content with file details by clicking the button at the top left of the content bank can make it easier to make sure that you are the user who uploaded the file, since files can only be edited by the user who uploaded it.

Content bank

PCW Sandbox					
•					
Content name 🗢	Places linked	Last modified	Size 🖨	Type ¢	Author ¢
		18:44			ыgersma
20230415 Lesson 3.1.h5p	0	20/04/23, 17:23	24.7 MB	Archive (H5P)	OPCW Module
20230416 Lesson 2.1.h5p	0	20/04/23, 12:51	21.3 MB	Archive (H5P)	OPCW Module
3.1 - 1 - Introduction.h5p	2	18/04/23, 18:55	7.9 MB	Archive (H5P)	Ashley Elgersma
3.1 - 3 - Regulation of dual-use chemic als.h5p	1	18/04/23, 18:57	14.0 MB	Archive (H5P)	Ashley Elgersma
3.1 - 4 - Conclusion and quiz.h5p	1	18/04/23, 18:58	6.3 MB	Archive (H5P)	Ashley Elgersma
3.2 - 1 - Introduction.h5p	0	18/04/23, 22:25	15.9 MB	Archive (H5P)	Ashley Elgersma
3.2 - 2 - Safety and security.h5p	2	18/04/23, 22:27	27.8 MB	Archive (H5P)	Ashley Elgersma
No. 3.2 - 3 - Chemical security.h5p	2	18/04/23, 22:28	5.6 MB	Archive (H5P)	Ashley Elgersma

3. Click on the blue "edit" button at the top left of the H5P file.



Opening H5P files to edit in Lumi

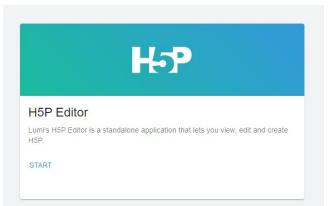
Lumi is a free desktop editor that can be used to create and edit H5P files locally. It can be downloaded for free from <u>https://app.lumi.education</u>. Unlike editing on Moodle, the Lumi desktop app allows for more than one H5P file to be open at a time, which is useful when copying over content from one H5P activity to another.

1. Download the H5P file from Moodle, by clicking on the "reuse" button on the bottom left of the H5P activity. If this button is not enabled, H5P files can also be downloaded by clicking on "settings" above the activity, clicking the file, and selecting "download".

H5	iP Settings A	.ttempts report More 🗸		
⊮∘ (Le	Edit 2.1 -	1 - Introduction.h5p	×	OPCV
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r N	Name	2.1 - 1 - Introduction.h5p		
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	Choose licence 🗛	All rights recorved	~	

OPCW Modules for Universities: Educator Resources | 16

2. Open the Lumi desktop app and select "start" on the H5P editor.



- 3. Click on "open existing H5P" and select the file you would like to open and edit.
- 4. To open more than one H5P file at once, click on "open H5P file" on the left of the screen. This will not close the current file, it will open the new file in another tab, and clicking on these tabs allows for easy switching between open files.

Using the H5P editor

The interface for editing H5P files is the same regardless of which editor is used. These instructions are specifically for editing interactive books, since this is the content type for the main lesson files in these modules, but the instructions for editing the content types within an interactive book can be used for those content types on their own as well.

Undoing changes made to H5P files

Although you can undo changes within the H5P text editor by using Ctrl-Z on your keyboard, neither H5P editor has an "undo" function for changes to other elements. Because of this, do edits carefully, and make sure you have a backup version of the file. When editing on Moodle, you might want to download a copy of the H5P file in case something goes wrong.

In either editor, make sure you <u>save</u> often so that if you make a mistake, you will have a version of the file to go back to without losing all other changes. If you do make a mistake that you need to revert, **do not save the file!** Instead, close the file (Lumi) or click "cancel" (Moodle) and re-open it to return to the last saved version of the file.

Navigating through interactive books

The main lesson files in the course use the <u>interactive book</u> content type. These books are composed of a set of "pages" that each contain one or more H5P activities. In the editor for an interactive book, navigation between pages is located on the left side. Click on each of the titles to navigate to that page. Sections can also be re-arranged by clicking the up/down arrows next to each of the titles or dragging the title of a page to where you would like it to be moved.

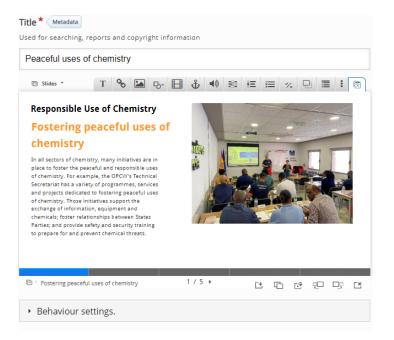
 I. Introduction
 Image: Constraint of the second second

To add a page to the H5P book, click on the blue "add page button" below the list of pages, and to remove a page, click on the "x" button to the right of each title. To change the title of a page, edit the title that appears on the top of the right side of the editor.

Pa	ges *		
~	1. Introduction	Title* Metadata 🔋 Copy 🕅 Paste & Replace	
<u>^</u>	2. Responsible use 🔞	Used for searching, reports and copyright information	
°	3. Peaceful uses of 😒	Peaceful uses of chemistry	
<u>^</u>		Link of Column Contact *	

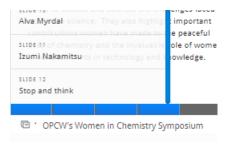
Editing course presentations

<u>Course presentations</u> make up most of the content within the course. Navigation within a course presentation in the H5P editor is the same as in the H5P viewer by clicking the arrows below the slide, clicking the grey and blue bar below the slide, or using the menu of slide names on the bottom left of the slides.



Adding/removing slides

When creating new slides, make sure you provide a title to the slide in the menu of slide names on the left of the slides. To do this, click the button on the bottom left to open the menu of slide names, locate the slide you would like to add a name to, and type the name of your slide. Close the menu and navigate away from the slide and back again to make sure the correct title appears on the bottom left when the slide is displayed.



To add a new blank slide to a course presentation, click on the "add slide" button on the bottom right of the slide. This will add a new slide after the current slide.



To duplicate an existing slide, click on the "clone slide" button on the bottom right of the slide. This will create a clone of the current slide after the current slide. This is useful if you would like to add a slide in the section that has the same design as other slides in the section. For more on the formatting of the slides in this course, see <u>the important note on design</u> later in this document.



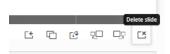
To move a slide to a place earlier in the presentation, click on the "move slide left" button on the bottom right of the slides.



To move a slide to a place later in the presentation, click on the "move slide right" button on the bottom right of the slides.

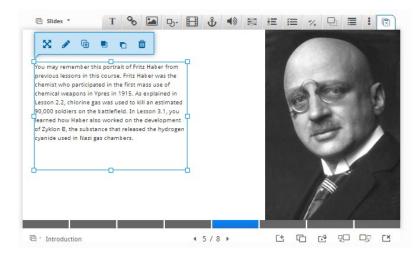


To delete a slide, click on the "delete slide" button on the bottom right of the slides.



Editing other items

All other items in H5P course presentations and other content types in the modules can be edited in the same way. To edit any item in the H5P editor, click on that item to bring up its menu. To change the content of that item, click on the "edit" button with the pencil item. Please see the <u>important notes on design</u> before making any changes to the design of the content or adding new sections.



Copying and pasting content

Items can be copied and pasted within and between H5P files using the "copy" button when an item is selected, and the "paste" button, which appears in the top right of the workspace, or by using Ctrl-C and Ctrl-V on your keyboard. Using the Lumi desktop app is especially helpful when copying and pasting content between files, because more than one file can be open at the same time.

Slides in course presentations cannot be copied and pasted between presentations. Instead, each element in a slide needs to be copied and pasted from one slide to another. If this is necessary, make sure you consider the order in which elements are copied over – elements inserted last onto a slide will appear on top of other content, and may cover content.

Please note: There are also several "paste and replace" buttons in some of the H5P content types. Clicking this button will replace all existing H5P content in that section with the contents of the clipboard. This is useful if you would like to add a new page in a book with the same design as another page, but it is easy to accidentally delete entire sections of a lesson. This is another reason to <u>save</u> the file often.

Saving H5P files

Once you have completed edits to the file, save the file. This process is slightly different depending on if you are using H5P or Moodle to edit the files.

Moodle

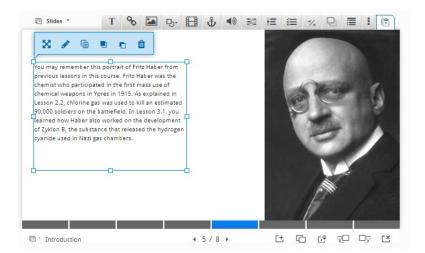
Scroll down to the bottom of the H5P editor and click on the blue "save" button. It may take a second to save, so do not click on anything else and the editor should close and display the H5P activity in view mode.



Lumi

In Lumi: On the Lumi desktop app, save the file by navigating to File>Save, or using ctrl-S on your keyboard.

Please note: occasionally, if an item is selected on a slide in Lumi when a file is saved, that item will move to the top right of the workspace. To avoid this, make sure that all items have been deselected before saving the file, and make sure you check the file by quickly clicking through all the slides once it has been re-uploaded to Moodle.



Important notes on design

The modules have been designed following specific style guidelines, and so any changes made to the files should be done in accordance with these guidelines. All design follows the OPCW's visual design language and uses OPCW's colour palette.

General style guidelines

Colours

All colours in the modules are from the OPCW's colour palette. These main colours are listed in the following table:

Colour	Name	Hex code
	B400	#004BB3
Blue		
	N800	#172B4D
Navy		
	NO	#FFFFFF
White		
	R300	#FF5630
Red		
	Y300	#FFAB00
Yellow		
	G300	#36B37E
Green		
	T300	#00B8D9
Teal		
	P300	#6554C0
Purple		

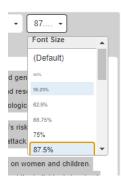
In some cases, variations of these colours are used to increase contrast to make text more readable. The following colour combinations are used to ensure all text is readable and complies with WCAG 2.0 AA standards:

- For red boxes the text is in R500, the bar at the top is in R400 and the background is in R50.
- For orange boxes the text is in N800, the bar at the top is in Y500 and the background is in Y50.
- For green boxes the text is in G500, the bar at the top is in G300 and the background is in G50.
- For teal boxes the text is in N800, the bar at the top is in T300 and the background is in T50.
- For blue boxes the text is in N800, the bar at the top is in B400 and the background is in B50.
- For purple boxes the text is in N800, the bar at the top is in P400 and the background is in P50.

Text

Headings and consistent text styles make the content easy to navigate and appear coherent, especially within course presentations. To ensure that the relative size of text remains consistent on slides, the size of text can never be set to "default" in the H5P text editor. Instead, the size of all text should be set to a fixed size, which is typically 100% for titles, and 87.5% for content text. There are some exceptions to these text sizes within course presentations, which are described in the relevant sections of this document.

To change the text size in the H5P text editor, highlight the text you would like to re-size, and use the menu in the editor to change the size.



Writing style, spelling, and grammar

Titles for each module, lesson, section, and slide are all in sentence case.

All the content in these lessons is written to be easily understandable by students, in an engaging and straightforward manner for non-experts, while reflecting only fact-based content and the OPCW's official position as much as possible. All spelling and conventions content

should be consistent with the <u>United Nations Editorial Manual</u>, and the <u>Oxford English</u> <u>Dictionary</u>.

Images

All images in the course must be publicly available or property of the OPCW. It is best to use images in the public domain, but images with creative commons licencing can also be used, provided that their sources are cited with a description of the image at the end of a lesson or branch in the "image credits" section of the references.

All images should also be provided with alternative text, which is a short description of the image that will display if images do not load and will be read by screen readers.

References

All references are cited using APA format at the end of each lesson or branch, along with image credits. In branches, references are provided on the final slide(s), and in main lessons, references are a text element on the final page of the book. In branches, references can be in smaller text (75% size) and may span across more than one slide in branches.

Design of course presentations

Specific design elements must be incorporated within al course presentations in the course to ensure consistency and easy navigation within the course.

All slides in course presentations should be given <u>slide names</u> in the menu of slide names, and the background colour should be set to white (#FFFFFF).

Specific slide formatting

Certain slides within course presentations, such as the title slides, lesson overview slides, and learning outcome slides have specific formats that are consistent across all three modules.

Main lesson title slides



The title slide at the beginning of each Lesson includes the following elements:

- Dark blue (#091E42) rectangle on left side, full height, width 245.
- Lesson title in white (#FFFFF), Heading 2, size 125% positioned (25, 35) from top left.
- Image representing the lesson on the right, approximately 50% of the space on the right side, centered in the white space on the right.

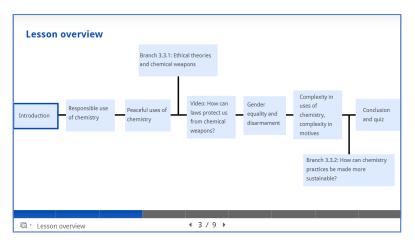
- Creative Commons icon on the left of the slide, size 68x24 and position (420,270)
- Text "This work is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.</u>" Size 68.5%, box size 227x30, position (350,290). The text naming the license should be linked to the following link: https://https/creativecommons.org/licenses/by-nc-sa/4.0/
 Specific to Module 1:
- OPCW logo on the bottom right of the slide, size 52x52 and position (30,260).
- Text "Funding for this lesson has been provided by the European Union" below EU flag, Normal, size 75%, box size 132x41, position (110,280).
 Specific to Modules 2 and 3:
- OPCW logo on the bottom right of the slide, size 52x52 and position (25, 215).
- EU flag next to the OPCW logo, size 94x62 and position (99, 207).
- Text "Funding for this lesson has been provided by the European Union" below EU flag, Normal, size 75%, box size 132x49, position (100,270).

Course overview slide

Module 1: The OPCW and its mission	Module 2: Chemical weapons: definitions and history	Module 3: Chemical safety and security ethi
Lesson 1.1: Bringing the world together to tackle chemical	Lesson 2.1: What is a chemical weapon?	Lesson 3.1: Dual uses of chemistry
weapons Lesson 1.2: Inside the OPCW	Lesson 2.2: Origins of chemical weapons	Lesson 3.2: Chemical safety and security
Lesson 1.3: Function of the OPCW	Lesson 2.3: Chemical weapons since World War I and the importance of preventing re- emergence	Lesson 3.3: Responsible use chemistry

The course overview slide is the second slide in the introduction of each main lesson file. If this slide needs to be duplicated, all content should be <u>copied and pasted</u> into a new slide. On this slide, the Module is indicated by a transparent blue rectangle on the other two Module outlines, and the lesson is indicated by red lines above and below the lesson title.

Lesson overview slide



The third slide in each lesson is a lesson overview slide. The overview of the lessons indicates the "branch points" in the lesson, where students may choose to explore branches within the lesson.

To add a section to the lesson overview side, a rectangle and text box will need to be <u>copied</u> <u>and pasted</u> into the slide.

By the end of this lesson, you sho	did be able to	
3.3.e. Explain The Hague Ethical Guidelines and their importance in supporting responsible conduct in the chemical sciences and in eliminating the use of chemical weapons.	3.3.b. Evaluate whether a certain use of chemistry can be classified as a peaceful and responsible use of chemistry.	

Main lessons have slides with learning outcomes at the beginning of the lesson after the course and lesson overview slides. These slides contain the following elements:

- Title "Lesson learning outcomes", colour #004bb3, Heading 2, 100% size, position (21, 21).
- Text "By the end of this lesson, you should be able to...", black, normal, size 100%, position (21, 56)
- Text of each learning outcome, with the number for the learning outcome in bold (format (1.1.a.), normal, 87.5% size. Learning outcomes should all be the same width, and approximately 20-25% of the width of the slide, and evenly spaced from the left side of the slide, with the first LO in line with the title of the slide.
- Light blue (#A9CAFF) rectangles above each learning outcome, height 2 and the full width of each LO.