



**mozaMap**  
digital maps  
for interactive board





# mozaMap

digital maps for in-class teaching  
in accordance with printed atlases

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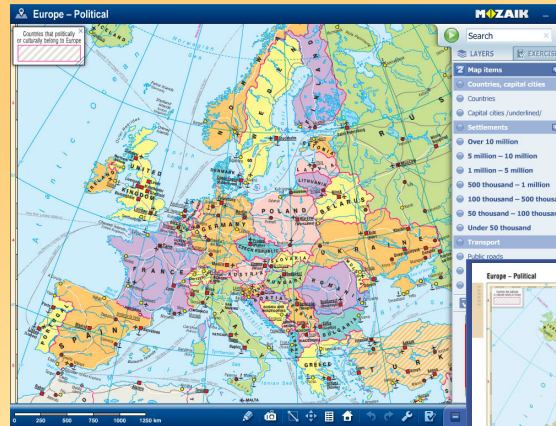
# Digital and printed maps in accordance with each other

The cartographic department of Mozaik Education deals specifically with the development of educational geographical and historical atlases. Mozaik Education is the market leader in Hungary with its educational atlases and is unique with its atlas-based mozaMap interactive whiteboard software application worldwide.



During digital classroom and interactive whiteboard use, pupils meet precisely the same maps found in their printed atlases.

digital version



printed version

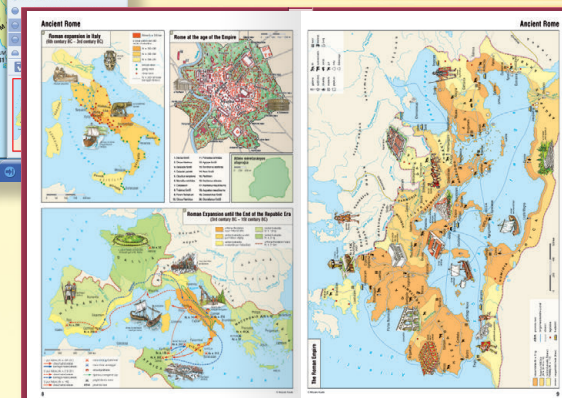


It can be seen that the content of the printed and digital maps is exactly the same, however, digital maps contain extra possibilities and functions too, such as the switchability of layers, saved views and the search function.

digital version



printed version



On digital maps we may illustrate certain historical events in a more detailed manner using animations, and we may also create exercises.

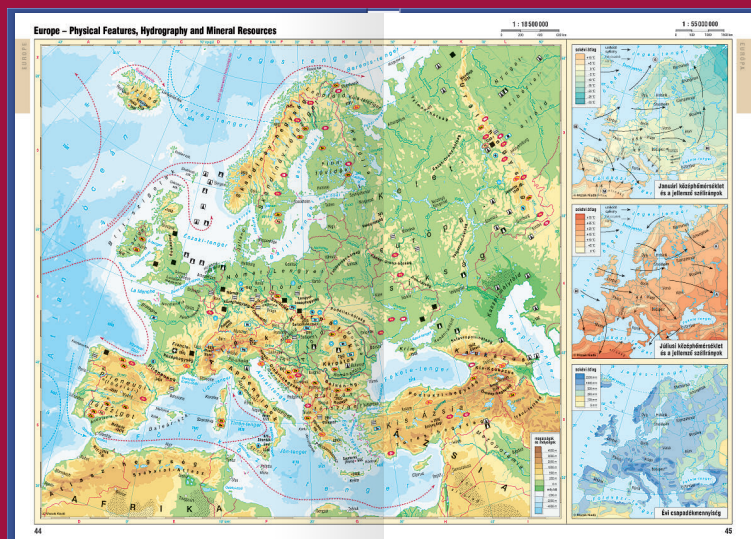
# Development of school atlases

It is essential for efficient classroom use of mozaMap digital atlases that pupils study the presented digital maps in a printed form during their home learning.

The underlying content and symbols used in the printed maps and digital mozaMap atlases made by Mozaik Education are in complete accordance with each other.

Our IT system is developed in such a way that we are able to produce printed and digital versions of maps simultaneously in multiple languages from a single source.

printed version

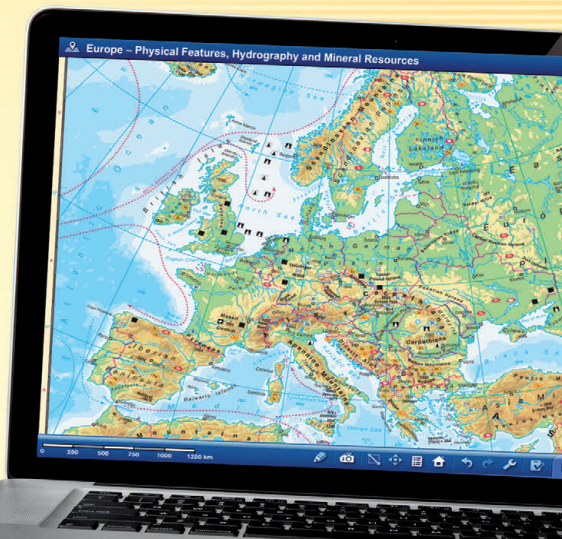


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printed tableaux



digital version



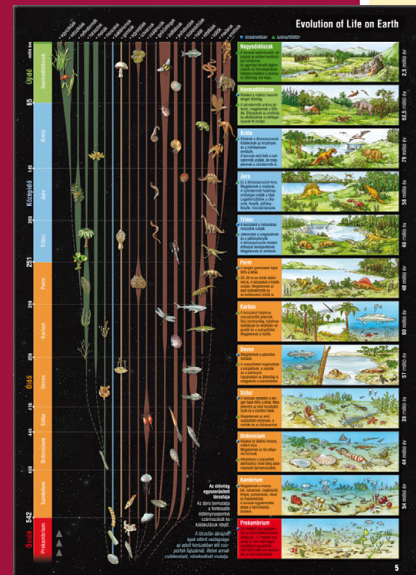
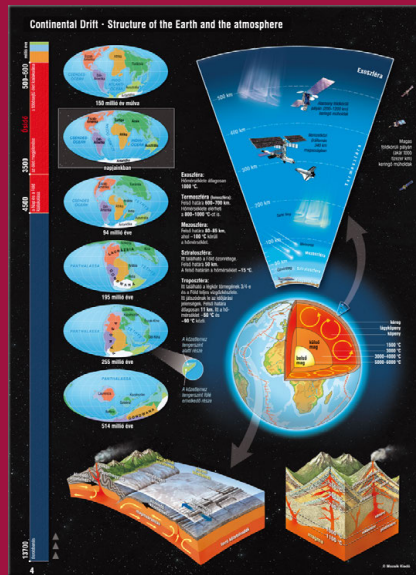
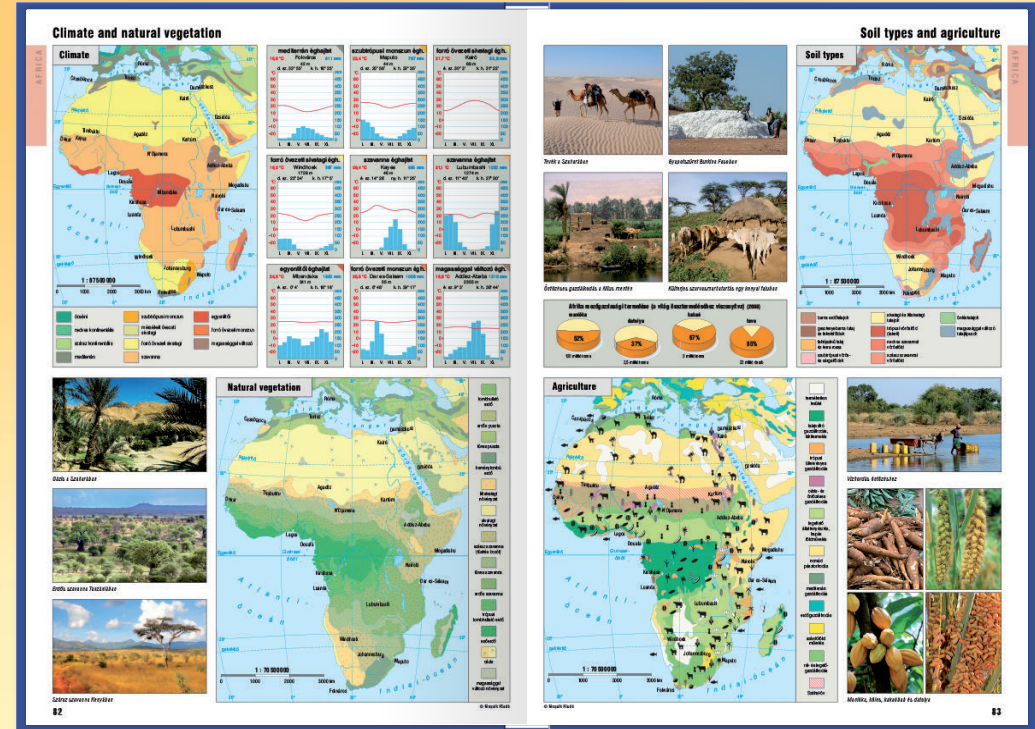
- Visualization tools and printed tableaux can be made based on the atlases.
- A unified thematic structure and use of symbols aid the transition between different platforms for both teachers and students.
- Printed wall maps or digital maps on an interactive whiteboard may be used in the classroom; students will find the same content on their home PCs or in their printed atlases.

# Geography atlases

Our geography atlases illustrate various topics with the necessary amount of details for all ages, including physical, administrative or other thematic (climate, population, economy, environment, etc.) maps.

For young pupils the use of maps, orientation and geographical symbols are introduced in a playful way.

Older students can use the atlases to learn about the most important cartographical terms, map projections or even interesting facts about the main methods of topographic representation or the usage of GPS.



- The structure of atlases is simple, clean and easy to understand. In addition to the topographical, administrative and mixed maps, they contain various other types of thematic maps. With the help of these teachers can easily explain the relationship of different topics.
- Graphics make individual understanding possible and the explanatory figures help in revealing more complex relationships.
- Atlases help the development of realistic impressions with drawings, aesthetic figures and photos.

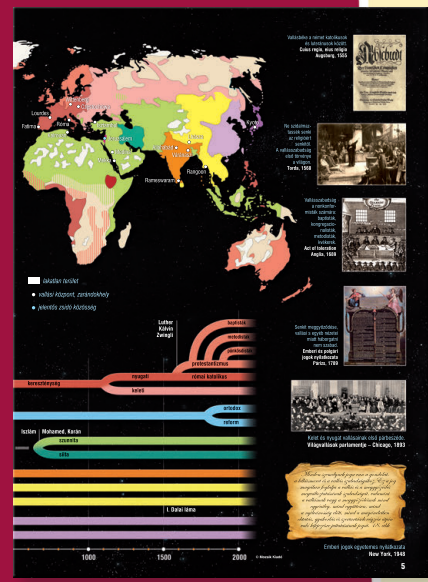
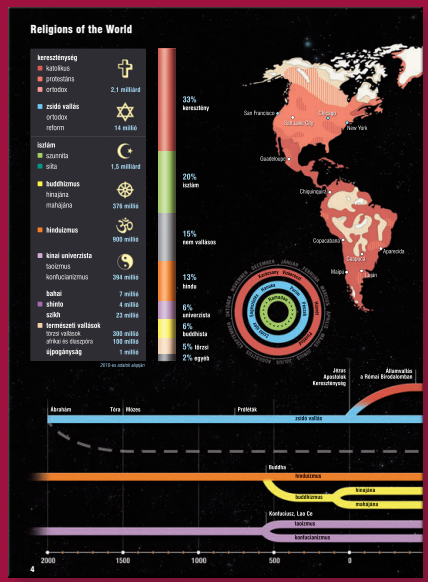
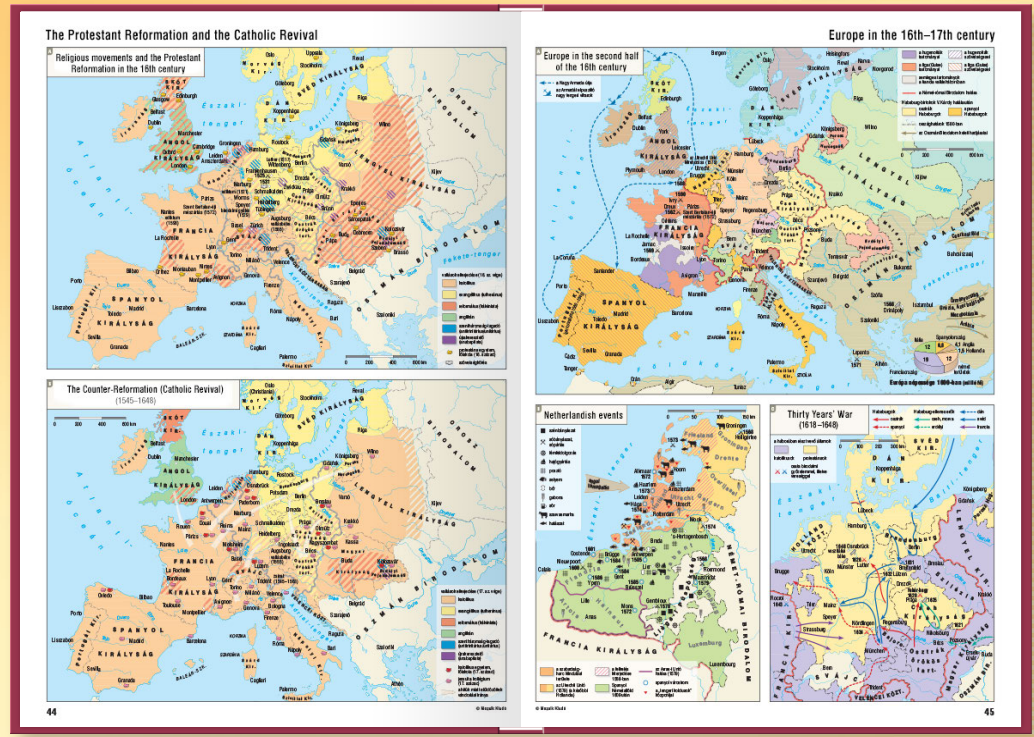


# History atlases

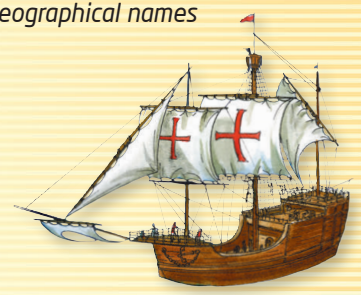
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Our atlases from elementary to high school guide students from the formation of the Earth to the present day, with maps covering the entire course material. We were led by three aspects when designing the atlases: historical accuracy, clarity and communication of information.

We develop every atlas to make it applicable in the mozaMap software in a digital format.



- The atlases are full of images, thus students can learn about historical events and history of arts at the same time. Historical maps are complemented by topographical information from the history of fine arts, music and literature.
- Children can learn perception processing skills and acquire long-lasting knowledge visually.
- The content of the atlases reflects current historical understanding in all cases.
- Each atlas contains an index with hundreds of historical and geographical names and concepts.



# mozaMap

digital maps for interactive board and home learning

The mozaMap is an education-centric versatile tool (framework) providing access to vector-based digital maps created by MOZAIK Education. The mozaMap can load hundreds of maps categorized by subject, topic and age group to provide easy access to both teachers and students.

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The mozaMap can be used on interactive whiteboards (or simple projectors) for in-class teaching and also on the web for home learning.

These features can be accessed through mozaMap, a desktop application for IWBs, replacing wall maps and taking teaching with geographical and historical maps to the next level.

Based on the work of our cartographic department, MOZAIK Education is ready to develop high quality, multi-layered, interactive digital maps for any region requested. These maps are available in mozaMap and also in print.



Every feature is built up based on the educational requirements. Easy to use, but also has many features. We can create interactive digital maps from our atlases with features such as switchable layers and area zooming. The teachers can draw on the maps, save views, etc.



# Screen Overview

## 1. Map Title and Mode

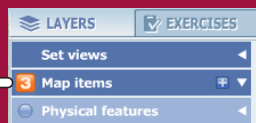
This is where you can see the Title of the map and the active mode (Map, Exercise or Animation).

## 2. Side panel

Use the green button to display or hide the side panel. The panel can be opened on both sides of the screen. You can also drag the panel to the other side.

## 3. Layers tab

It displays the layers of the active map, which can be switched on and off or set to flashing. For the latter, change Map Items mode to **3**



## 4. Language

Digital maps are designed to enable easy switching between several languages with just a few clicks.

## 5. Search

You can also search the text of the map here and display your own (saved) layers and search results.



## 6. Exercise tab

Create your own exercises and questions. To learn how, see page 15–16.

## 9. Save picture

Save your own views together with your own drawings and markers as images. Saved maps and views can be inserted into mozaBook.

## 10. Zoom

After activating this tool, drag the mouse pointer to select the area to zoom in or out.

## 11. In-map magnify and pan tool

Turn on the navigation tool which allows you to pan and zoom in and out. You can move this tool to anywhere on the screen.

## 12. Legend

Show or hide the legend or drag it to anywhere on the screen. You can resize the legend window by dragging its bottom right corner.

## 13. Default view

Reset the map to the (full) default view.

## 14. Undo/Redo

You can undo all your changes on the map.

## 15. Settings

Use the panel to customize the program to best suit your needs. This will make your work faster and more enjoyable.

## 16. Switch to...

Switch to Exercise view or - if it is included in the map - to Animation view, then back to Map view.

## 7. One level back

To choose another map, return to the map list of the current atlas or to the list of atlases.

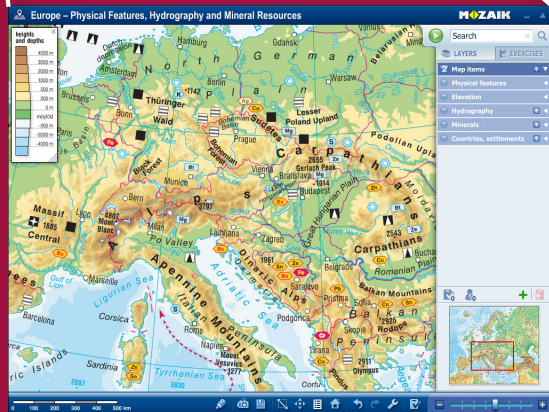
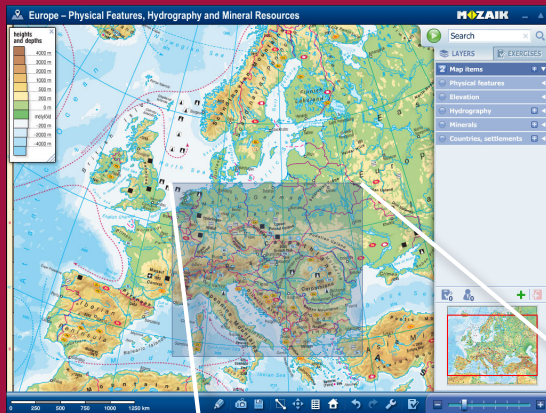
## 8. Drawing Tools

Draw on the map, measure distances or insert map items. To learn how, see page 13.



## Navigation on the map

The mozaMap offers various tools for navigating the maps: zoom slider, area-selection zoom, in-map navigator for zooming and panning. The maps can also be magnified using the scroll wheel and panned by dragging on the screen.



The dynamic scale adjusts to the current magnification level in real time.

All of our maps are *vector-based*, so the quality of the maps remains the same regardless of the level of magnification. An overview of the maps helps navigate over the map, and acts as a panning tool as well. From every view and modification, the user can go back to the default view by simply clicking on the "home" button.



in-map magnify & pan tool

map overview & pan tool

dynamic scale

zoom by area selection

zoom slider

A set of high quality digital maps can substitute for a huge collection of printed wall-maps. But with these digital maps we do not have to compromise between high-detail condensed maps and readability.

The user can choose the proper magnification according to the required level of detail (layers) and focus.

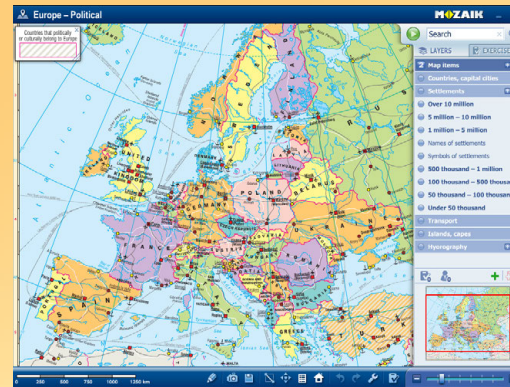
## Layers and combined maps

Maps are built up from layers which can be easily switched by the user to on, off and blinking. This way the teacher can effortlessly adapt the map to the lesson, highlighting the important parts, helping the students concentrate on the topic of the lesson, avoiding distraction and improving the lesson's efficiency.



The layers are structured by multiple levels (groups, subgroups, layers). The layers can have their own symbols to assist navigation.

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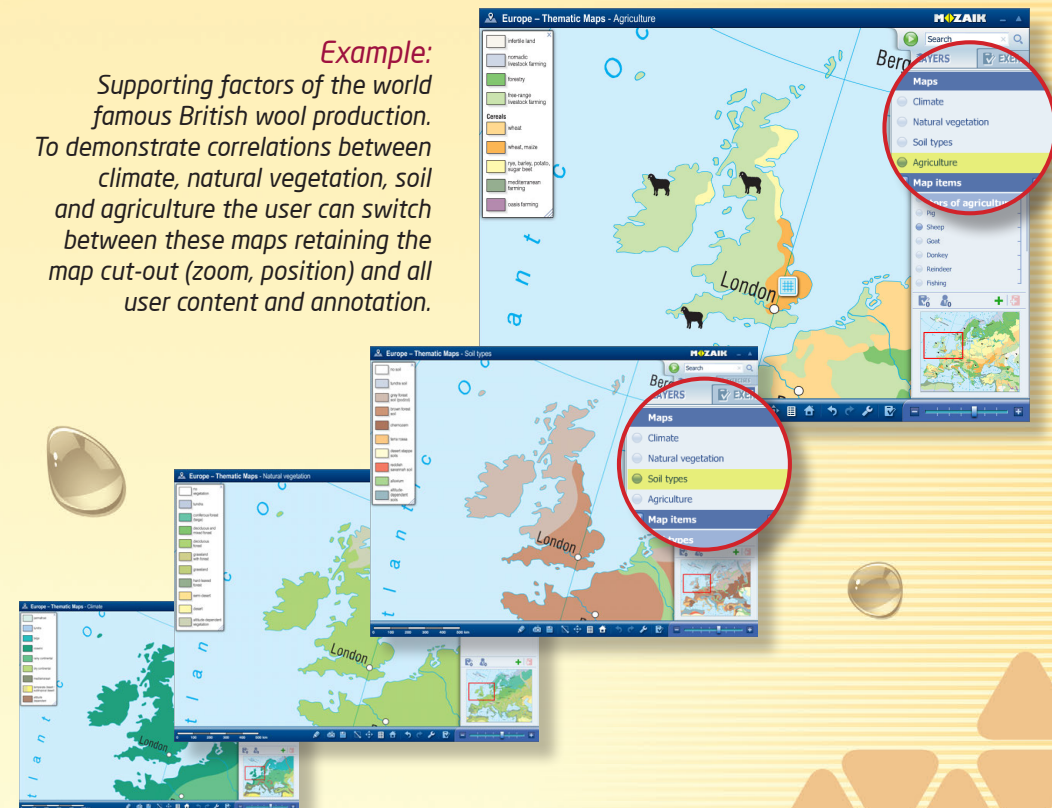
## Combined Maps

There are topics which are closely related to each other, yet require distinct presentations on maps using different layers and layer structures to suit educational needs. Related maps are combined together.

This feature allows the user to access these maps as one. Each map contains different layers based on its topic. Switching between these maps will retain user content, magnification and map position. It helps the teacher to **demonstrate the correlations** between contributing factors.

### Example:

Supporting factors of the world famous British wool production. To demonstrate correlations between climate, natural vegetation, soil and agriculture the user can switch between these maps retaining the map cut-out (zoom, position) and all user content and annotation.



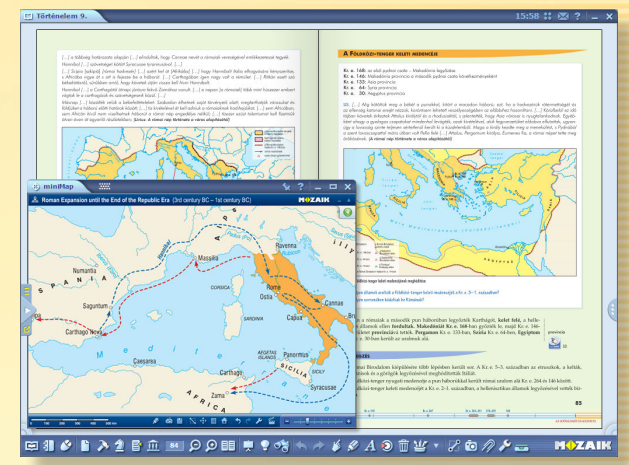
# Save view saving the window and map

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## Integration with mozaBook

Every map can have multiple pre-set and user-created views. Links can be inserted into books and booklets in the mozaBook application to access the pre-set map views with a single click.



Map views can be saved and labelled. All user-defined options (zoom, pan, drawings, layers' visibility) will be saved into a labelled view, which can be retrieved with a single click. This helps the teacher show appropriate content in their presentation.



## Export

The whole window (with controls and buttons), the whole map, or a freely chosen cut-out of the map can be exported to be used in mozaBook or any other applications. Any of these can also be printed and reused as a handout or placed into a personal repository.

# Searching on maps

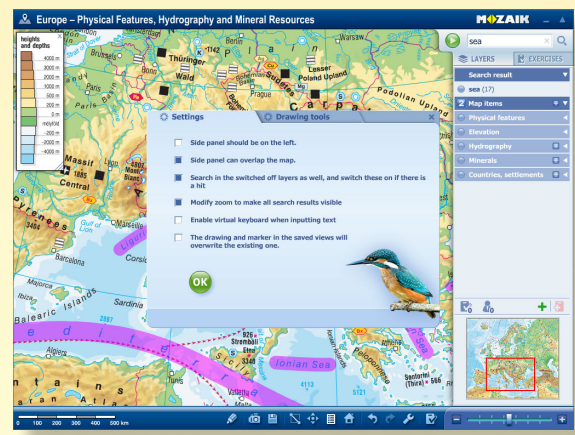
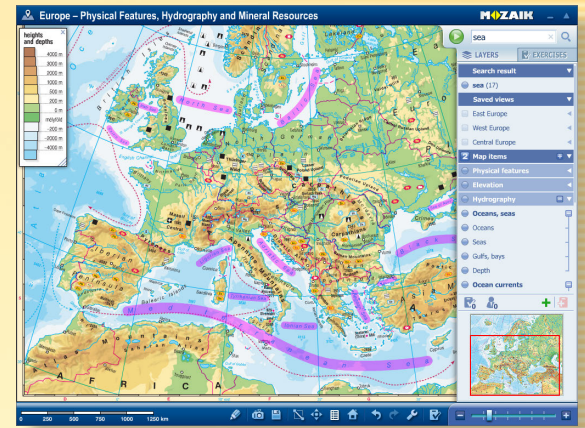
You can find any text fragment on the map by using the search function regardless of whether this text is the name of a city, area, mountain or any label type.



The search can be configured to include text on hidden layers. It also can auto-adjust the magnification or auto-pan to reveal all matches. This simple but powerful search option provides great assistance to the user for finding the appropriate area or revealing all entities of the same type.



The user can also choose whether to search only visible layers or also include hidden layers. The user can also decide if, when showing search results, it will automatically adjust the size of the selected area.



The above options can be stored in Settings.

# Drawing Tools

## Presentations and User-Created Content

The user creates his or her own layers by placing their own content on top of the map. This content can be of various types such as freehand drawings, symbols, notation, images. The content can be moved by simple drag and drop, optimized for touch screen usage.

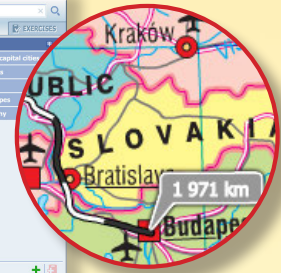
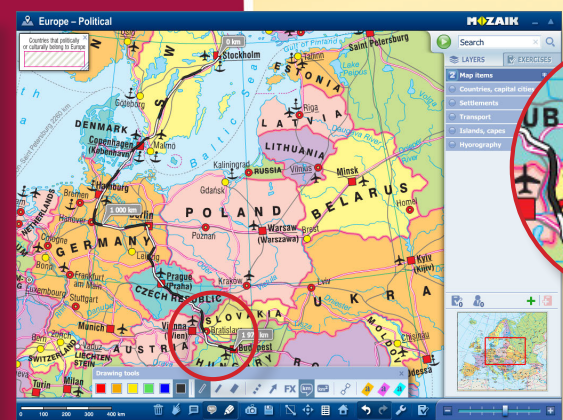
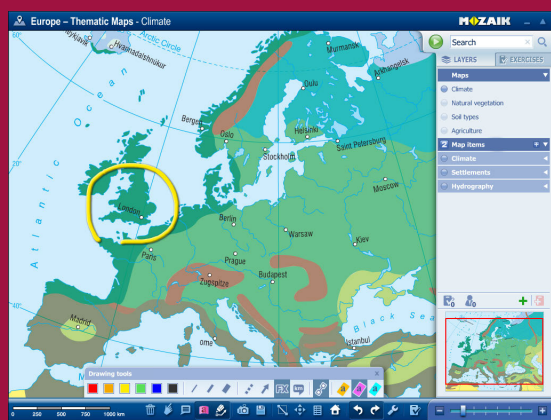
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### Placing symbols and markers

Symbols and markers can be placed onto the map. A collection of generally used geographical and historical symbols is provided as a library with mozaMap.

Annotative bubbles can be inserted for placing text and images onto the map, allowing the user to enrich the map's content according to his or her needs. With these custom options and the fact they can be saved: lesson-focused, specialized maps can be created and linked directly to any book's pages, if used together with mozaBook.



### Presentations

With the above functions the user can create presentations on the map by placing their own content into their own layers, and saving it as their own view.

### Drawing Lines, Shapes

Freehand lines, straight line segments and polygons can be drawn onto the maps. Styles, colours, patterns (solid or dashed), thickness, arrowheads and transparency are all customizable. Lines and polygons are measurable with respect to the current scale of the map.

Proceeding through these views they can show different objects in the maps by cut-out selections and layer visibilities. These can be saved and shared, and also placed into mozaBook and can be retrieved as a presentation.



# Using Drawing Tools

## Drawing and Measuring

### Where to find drawing tools

Click on the pencil icon **1** to open the drawing tools.



**1**



You can draw on maps **2**, highlight important details **3**, or measure distances **4**

### Tips

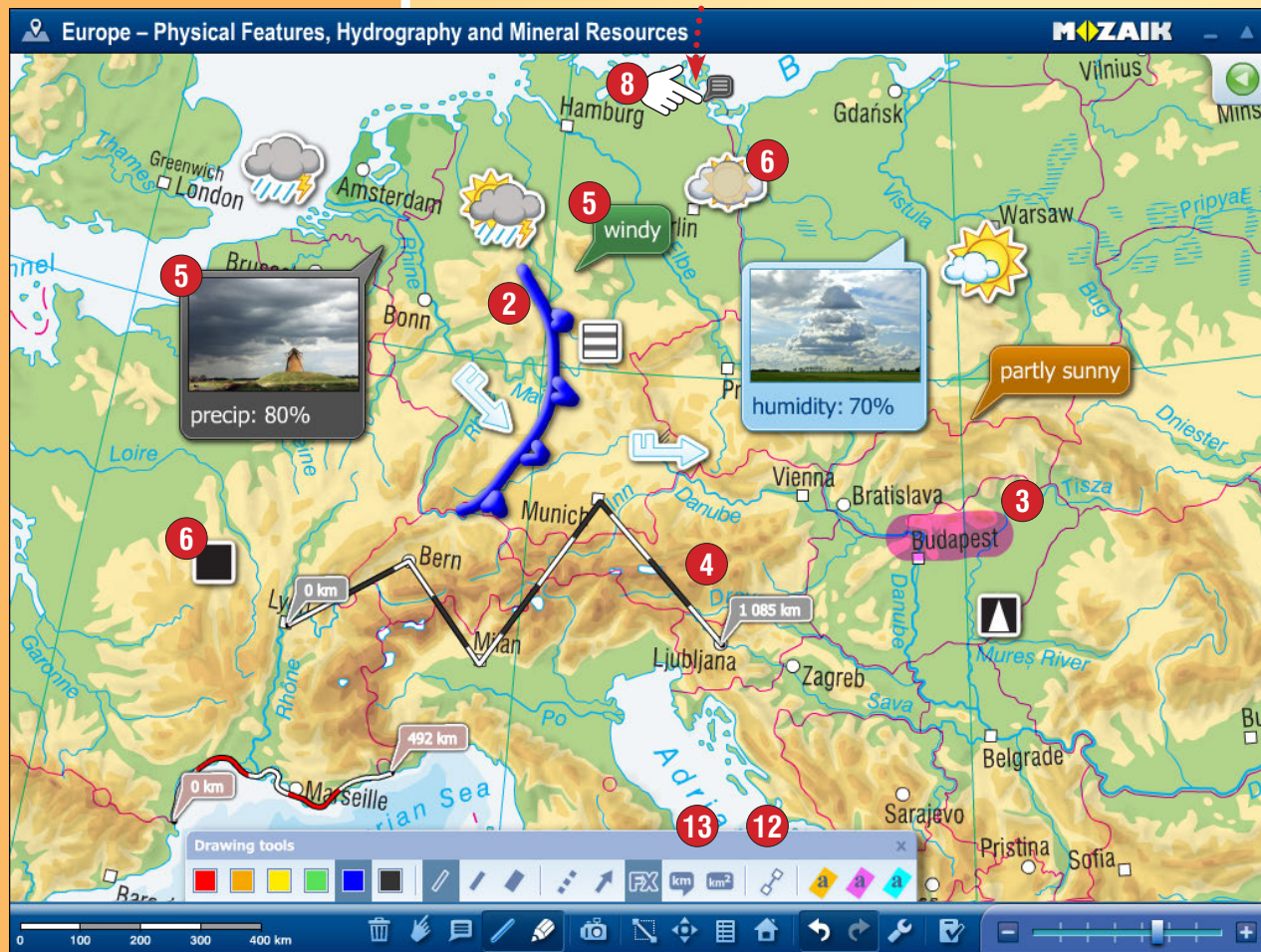
- You can drag a straight or broken line by switching on **12**
- You can measure distances or areas by selecting these buttons **13**
- You can insert images into the text bubbles by dragging.
- Close the drawing tool by clicking again on the pencil icon **1**

### Map markers

Click here **7** to add text **5** or map markers **6**, then select a category on the toolbar header and drag the selected bubble or marker on the map **8**



**7**

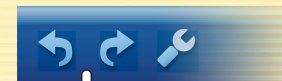


**9**



**10**

If you want to change the properties of an item, select it **9**; to delete it, just drag it into the Trash **10**



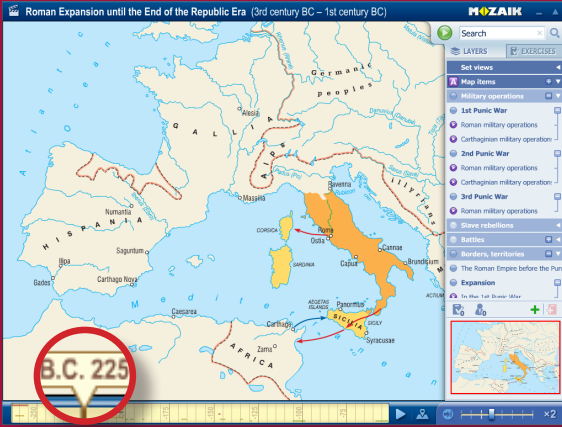
**11**

Don't worry, you can undo all your changes **11**

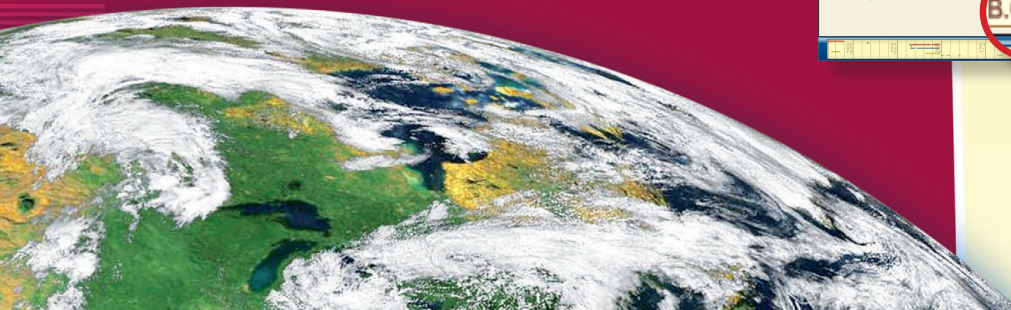
# Animation with dynamic change

Our maps may also be animated. By selecting and highlighting different characteristics or parts at various historic dates our software is able to animate the transitions between these events over time.

This allows one to dynamically illustrate the geographical impact of certain events (such as wars, trade, treaties) over time, and also to assist the student in realizing and understanding correlations between developments not just by territory and area but also over time.

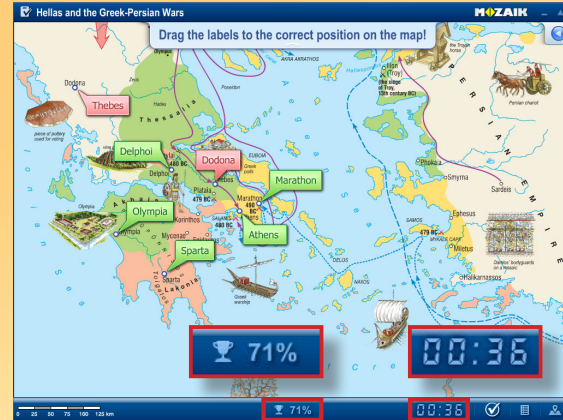


The current date is displayed on a clear and viewable timeline at the bottom. The playback speed may be customized, and the animation paused at any point.



# Lessions Exercises and Questions

With mozaMap the user is capable of producing customized exercises based on the maps. These exercises can be saved, shared, or easily inserted into mozaBook.



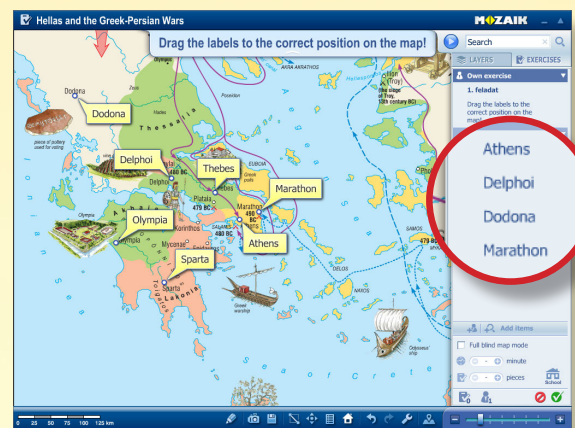
For example: blind maps, where the teacher can choose either cities, battle locations and other historical or geographical landmarks preloaded on the map or locations of their own liking. The students must match these points with the correct labels. Time allowance can be set.



While the student is working, mozaMap displays the time it takes for him to solve the problem. When the student finishes solving the problem, mozaMap displays the miss/hit ratio in percentages, and also shows the correct answers. The user can alternate between showing the right or wrong answers.



New exercises may be devised by the teacher. Let's see the above example: First, the teacher can select the cities which are included in the exercises. Thereafter the teacher can set the number of cities and the allowed time.



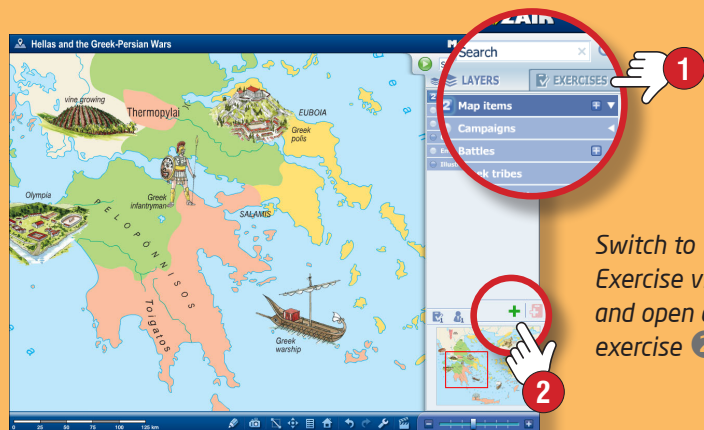


# Create exercises

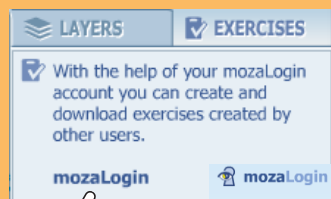
How to create a drag and drop map exercise.

## Planning

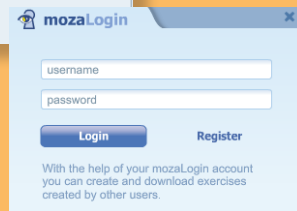
Set the appropriate zoom and switch off layers that are unnecessary for the exercise.



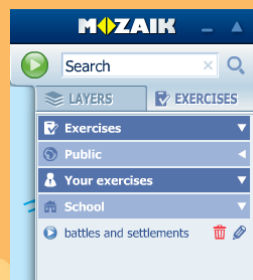
Switch to Exercise view **1** and open a new exercise **2**



To create a new exercise, you must be logged in with your mozaLearn user account **3**. If you haven't yet logged in, you can do it here.

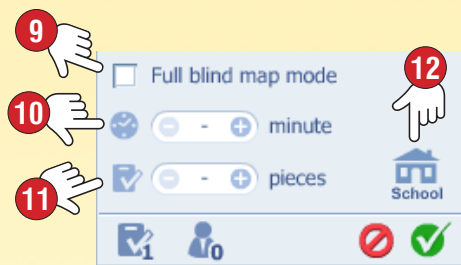
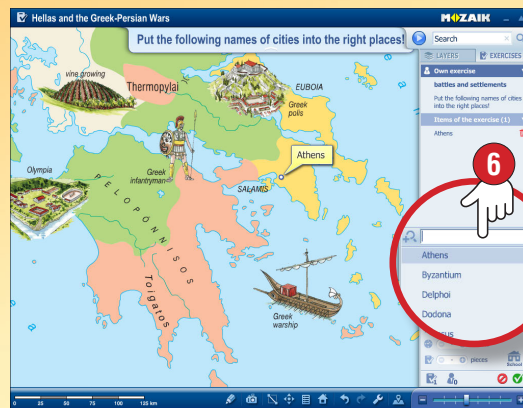


If you are logged in, you can see if there are exercises created for a given map. Start exercises by clicking on the icons next to the title



## Creating the exercise

- Enter a title for the exercise **4** and edit the question if necessary **5**
- Select items of the map to be inserted **6**
- Create new items and place them on the map **7**
- When you are done, click on the green tick **8**



Number of exercises.

Number of your exercises.

## Tips

- **9** by choosing this option, the location of the items will not be marked on the map.
- You can set the time available for solving the exercise **10**
- Add as many items as you want, here **11** you can set which ones you want to be displayed at one time.
- You can share the new exercise with your school or with any mozaMap users **12**

## Starting and solving the exercise

Start an exercise by clicking on the icon next to the title. To check and evaluate your solution, click on the tick icon **13**



# Multilingual maps

Digital maps are designed to enable easy switching between several languages with just a few clicks.

When switching to a different language, not only are the labels displayed in the newly selected language, but the entire user interface (menu system, names of the layers, legend, etc.) is changed as well.



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- Switching between several languages is easy and quick. When switching to a different language, it happens in no time.
- Each map and the entire interface are displayed in the selected language.
- Switching between languages is possible on each level (main menu, table of contents and any maps).



## Integration with mozaBook

The mozaMap software is a part of the mozaLearn ecosystem. References to any mozaMap view or content may be saved and placed into mozaBook.

References to mozaMap content can be placed into books and booklets inside mozaBook, which can be retrieved with just a single click and opened as saved, thus sparing time taken by the teacher looking up the specific content related to the lesson.

103. Németország nyugati részének főbb iparvárosai. Csoporosítsa a feltevései városokat a legjellegzetesebb iparágak szerint! Vezesse át, mely városokban található a világviszonylatban is jelentős Bayer, Ford, Hoechst, Opel és BASF-EMTEC vállalatok központjai!

Used together with mozaBook, seamless integration provides fast access to related content and collates the different types of materials to be accessed with ease.

A nyersvas előállításához ma már sokkal kevesebb kőszén szükséges. Jelentősen csökkent a kőszén fűtőanyagként történő felhasználása is. A gépiparban ráadásul előszeretettel alkalmaznak acél helyett alumíniumot. Emiatt a Ruhr-vidéken több százezer munkahely...

GDP az EU-27 átlagához viszonyítva

- 125% felett
- 100-125%
- 90-100%
- 75-90%
- 60-75%

103. Németország nyugati részének főbb iparvárosai. Csoporosítsa a feltevései városokat a legjellegzetesebb iparágak szerint! Vezesse át, mely városokban található a világviszonylatban is jelentős Bayer, Ford, Hoechst, Opel és BASF-EMTEC vállalatok központjai!

A subset of maps, called miniMap, can run inside mozaBook and be accessed directly from mozaWeb.

دورة المياه (الأعدادية)

سلسلة جبلية  
نهر جليدي  
غطاء ثلجي  
فصدان  
بحيرة  
جدول  
نهر فرعي  
نهر رئيسي  
لسان بحري  
لسان بحري  
بحر المحيط

Find the smoke of the Mount Etna volcano! Which one is the correct statement? The smoke passes towards...

A the Mediterranean sea  
B the Tyrrhenian sea  
C the Appenine Peninsula  
D Tunisia