

Didactic Atlas of the National Geographic Institute of Spain

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Keywords: Didactic Atlas, Geography, Teaching and learning material, Open Educational Resource

Abstract:

The National Centre of Geographic Information (CNIG) and the National Geographic Institute of Spain (IGN) have launched [The Didactic Atlas of IGN](#), an Open Educational Resource (OER) for the teaching community which consists of a digital geographic atlas, aimed at the educational community, whose scope is Spain, contextualised in Europe and the world. It combines theoretical information, multimedia material and maps, most of which are interactive and developed using Geographic Information Technologies.

The contents of the Didactic Atlas are based on the [National Atlas of Spain](#) and other materials from the IGN, adapted to the didactic context to support the teaching of Geography at Secondary and High School (students between 12 and 18 years old).



Figure 1. Image of part of the Didactic Atlas of the IGN.

It is structured in 15 topics, It consists of 15 themes, broken down into two levels (Compulsory Secondary Education and Baccalaureate) and grouped into 5 thematic blocks as follows:

I Cartographic knowledge:

1. The representation of the territory in plans and maps

II Natural environment

2. The great units of the Spanish relief

3. The climatic variety of Spain
4. The distribution of vegetation in Spain
5. The waters in Spain

III Population and settlement

6. Population: Who are we and where do Spaniards live?
7. People on the move: migratory movements in Spain.
8. The characteristics of Spanish cities in their urban plan
9. Spain: a network of cities in a mostly rural territory

IV Economic activities and infrastructures

10. Agricultural uses in Spain
11. Location of the Spanish industry
12. Spatial analysis of the main economic sector in Spain: services

V Territorial structure

13. Characteristics of Spanish landscapes
14. Origin and development of the current Spanish territorial organization
15. The international relations of Spain in the world

The theoretical basis has been developed in collaboration with the Didactic of Geography Group of the Spanish Association of Geography. More than 60 secondary, high school and university teachers from practically all the Spanish regions have participated assembled in 16 working groups. They were coordinated by a manager group made up of teachers, and by professionals from the National Geographic Institute.

The focus of this Didactic Atlas is placed on interactive cartography, which allows students to navigate, combine different layers of geographic information, consult the associated alphanumeric and thematic information, and create their own maps. The interactive maps are available through two types of map viewers: A wide variety of qualitative maps from the National Atlas of Spain and new derived ones published through web services in a web map application. Quantitative maps of the National Atlas of Spain are accessible through the [Interactive Atlas of Spain](#), a useful tool already available.

Apart from theory and maps, the Didactic Atlas includes multimedia contents, didactic activities with feedback, and games to put in practice the knowledges acquired. The objective is to support the self-learning of Geography, and to promote the use of Geographic Information Systems.

The software used to develop the platform with all the contents is [eXeLearning](#), which is a free software tool under [GPL-2](#) licence to create educational resources, which allows the reusing of materials so that the teachers can download the materials and adapt them to their own classes.

The Didactic Atlas is available in Spanish at [Educa IGN](#), the IGN website for educational resources, and soon it will be available in English. As it is an Open Educational Resource ([OER](#)), it is offered for free, under an open license that permits user, adaptation, and redistribution by others with no restrictions, respecting and mentioning the authorship of the work.