Magic Telescope
Reading map features and looking at aerial images
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Geography teaching resource
Primary

This is one of a series of teaching resources for use with Digimap for Schools. For more details about this service, visit http://digimapforschools.edina.ac.uk
Digimap for Schools Geography Resources

Title: Magic Telescope

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<tr>
<th>Level</th>
<th>Context</th>
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<tr>
<td>Primary</td>
<td>Reading map features</td>
<td>Anywhere in GB</td>
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Knowledge
Reading and interpreting map features. Using Zoom to Area function. Drawing a fixed shape area. Placing labels.

Curriculum links (England)
Describe and understand key aspects of human and physical geography, use maps and digital mapping to locate and describe features.

Curriculum links (Wales)
Knowledge and Understanding of the World: Begin to recognise differences between their own locality, localities in other parts of Wales and in different parts of the world; learn about how and why people and places are linked. Geography: Use maps to compare and contrast places.

Scottish Curriculum for Excellence
Social Studies Outcomes: People, Place and Environment:2-13a, 2-14a

Activity

Pupils draw a very small area of search using a small-scale outline map of Great Britain, not knowing what kind of place they will find until they zoom in. When they do this, they have to use the landscape features as a clue to say what people might do there, and add labels to their map. They then compare this to the aerial image to understand the relative value of maps and images.

Introduction

When you first open up Digimap for Schools, the map you are shown, by default, shows the outline of Great Britain.

As you ‘zoom’ into the map, features come into focus until you reach the fully ‘zoomed in’ level, which reveals a good deal of detail about places. What is important is that pupils realise how detail increases as we move from a small scale to a large scale (‘zoomed in’) view and how this can give us information about what a place is like and what people might be able to do there.

Main activity

Explain that pupils are going to use a magic telescope on the map of Great Britain to zoom in and find out what that place is like. But that they have to make the magic telescope first before they can have a look. Pupils could work alone or in pairs. You could make this a challenge to see who can find out the most things.
Digimap for Schools

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Tasks

Open up Digimap for Schools. Explain that the map they can see doesn’t really give much detail and discuss what it does show. Pupils can choose anywhere on the map of Great Britain to focus their telescope.

1. Making the telescope. Open the Annotation toolbar and select ‘Draw fixed shape area’ and select ‘circle’. Make sure the ‘Transparency’ button is 100%.

2. Now choose your location on the map of Great Britain and very carefully and lightly just tap the point once using your mouse. You should have a tiny spot on the map that you can just see. If you have a large circle drawn you need to delete it and try again. Close the Annotation Bar when you have finished.

Pupils could see what happens when they draw a large circle and how difficult it is to zoom in very far without losing sight of the circle outline.

3. Now choose from the toolbar and click on the dot you have just drawn. Keep repeating until your circle fills up the screen. Alternatively use the ‘zoom bar’

4. Your mystery place is revealed. Where is it? What kind of a place is it? What can you do there? Use the map clues and the map key to help you find out as many things as you can about the area inside your circle as seen through your Magic Telescope.

5. Now look at the aerial image and see what you can find. What does the image show you that the map doesn’t?

6. When you have examined the map and aerial image carefully and made notes, you can add some labels. Open the Annotations toolbar again.

   a. First select the font, text colour and size you want.
Then select and click on the map to bring up the text box. Write what people can do there and the name of the features. See example below.

7. Complete the table below using the suggestions supplied. Add in some more ideas of your own if you can.
Maps are best for:  

Aerial images are best for:  

Both are good for:  

<table>
<thead>
<tr>
<th>Seeing traffic and people</th>
<th>Measuring how big your garden is</th>
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</thead>
<tbody>
<tr>
<td>Following a footpath</td>
<td>Counting swimming pools in gardens</td>
</tr>
<tr>
<td>Looking to see solar panels on roofs</td>
<td>Deciding if you would like to visit an area</td>
</tr>
<tr>
<td>Showing what is underneath trees</td>
<td>Seeing the shape of roofs</td>
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**Taking it further**

- Challenge pupils to predict what they will find in their ‘magic telescope’, Can they pinpoint an urban/rural/seaside/riverside/mountainous and so on area through their location skills using an outline map? Could they use an atlas to help choose where to focus? This will help pupils become familiar with larger patterns in Great Britain such as where the major urban areas are found.

- Have a class challenge to see who can get the nearest to a major feature, such as the city of Edinburgh, the River Thames or Snowdon.