Key Stage 3–4 science/geography resource: Malaria – a development success story

<table>
<thead>
<tr>
<th>Activity summary</th>
<th>Global learning opportunities</th>
<th>National Curriculum links</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria is a major threat to 40% of the world’s population. However deaths from</td>
<td>GLP-E themes and outcomes</td>
<td>Science</td>
<td>Geography</td>
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<tr>
<td>malaria have fallen by about half since 2000, so this is also a story of success</td>
<td>• developing countries</td>
<td>Skills</td>
<td>Locational knowledge</td>
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<td>in applying science to development.</td>
<td>• interdependence</td>
<td>• experimental skills and</td>
<td>• extend locational</td>
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<tr>
<td>This activity is based on a resource for Key Stage 3 science from GSK Science</td>
<td>• enquiry and critical thinking</td>
<td>investigations</td>
<td>knowledge and deepen</td>
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<tr>
<td>(login required). Pupils investigate the causes of malaria and how unicellular</td>
<td></td>
<td>• analysis and evaluation</td>
<td>spatial awareness</td>
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<td>organisms adapt, and have a go at making and testing a vaccine, and simulating</td>
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<td>an outbreak of disease. There are further activities from GSK on researching and</td>
<td></td>
<td>Subject content: biology</td>
<td>Human geography relating to:</td>
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<td>developing new medicines.</td>
<td></td>
<td>• cells and organisation</td>
<td>• population and</td>
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<td>Global Goals</td>
<td></td>
<td>development</td>
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<td></td>
<td>• SDG 3: Good health and well-being</td>
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Development

You could develop further work in **geography** and **science**, including by:

- using video as a stimulus to understand the causes, prevention and impact of malaria on development: BBC Bitesize has video clips on the malaria cycle and health impacts, climatic conditions for malaria and malaria control and prevention. This WHO video (You Tube) covers similar ground, and arguably presents a more positive picture.
- using these activities from Animal Research, which focus on ethical issues, e.g. why is little funding spent on malaria research, and should GM animals be used for research?
- investigating world progress in reducing malaria, for example some facts and figures behind reduction in malaria, perhaps by interpreting this WHO map and adding data/graphics. Worldmapper has a number of transformed malaria maps, though these are based on old data.
- linking work to World Malaria Day: this Education Scotland site links to other related sites.
investigating and comparing the activities of pharmaceutical companies in combating malaria (e.g. search 'pharmaceutical companies malaria'), and perhaps thinking critically about their role

The STEM e-library has a number of activities and resources about malaria, particularly focused on Key Stage 4. This British Council activity includes science activities on stopping the spread of infectious diseases.

**Critical thinking opportunities:**
- ask and respond to a range of questions as part of an investigation
- explain, reason and think about evidence
- look for hidden meanings or perspectives, for example from groups unrepresented in a question or issue
- consider different viewpoints about ethical questions
- assess or evaluate information, e.g. distinguish fact and opinion, and compare sources of information.