Invasion of the Bloodsuckers

Bedbugs and Beyond!

Mr. Insect Head Mouthparts Mask

Mr. Insect Head is a grasshopper head, used to demonstrate the primitive or prototype insect from which other bloodsucking arthropods evolved. Entomologists are not sure what this ancestor looked like, but most agree that it was probably similar to the modern-day grasshopper.

Watch the Evolution of Blood-feeding Mouthparts animation to see how primitive chewing mouthparts developed over millions of years into blood-feeding tools for the bedbug, flea and mosquito.

Instructions: Cut out the individual mouthparts and label them using the list below. Add description and definition on the back. Tape them onto the grasshopper head to make your own Mr. Insect Head Mouthparts Mask.

### Insect Mouthparts

<table>
<thead>
<tr>
<th>Location</th>
<th>Mechanism</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clypeus</td>
<td>Immovable</td>
<td>Protection</td>
</tr>
<tr>
<td>Labrum (upper lip)</td>
<td>Flap over mouth together with labium</td>
<td>Flexible – works while insect is eating</td>
</tr>
<tr>
<td>Mandibles (lower jaws)</td>
<td>Paired on sides of head near mouth</td>
<td>Moves sideways to cut, tear or bite food</td>
</tr>
<tr>
<td>Maxillae with Maxillary Palps (upper jaws)</td>
<td>Paired on sides of head below mandible</td>
<td>Teeth on inner margin push food down throat</td>
</tr>
<tr>
<td>Hypopharynx (tongue)</td>
<td>Rises from base of of labium</td>
<td>Saliva from salivary glands flows through</td>
</tr>
<tr>
<td>Labium (lower lip)</td>
<td>Floor of mouth together with labrum</td>
<td>Flexible – works during mastication</td>
</tr>
</tbody>
</table>

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Mr. Insect Head Mouthparts — ANSWER KE
Y
Maxillary Palp
Right maxilla
Labrum
Labium
Clypeus
Hypopharynx
Right mandible
Left mandible
Left maxilla
Maxillary Palp
Clypeus