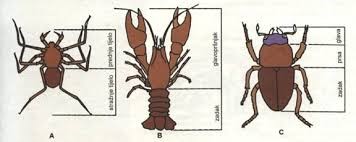
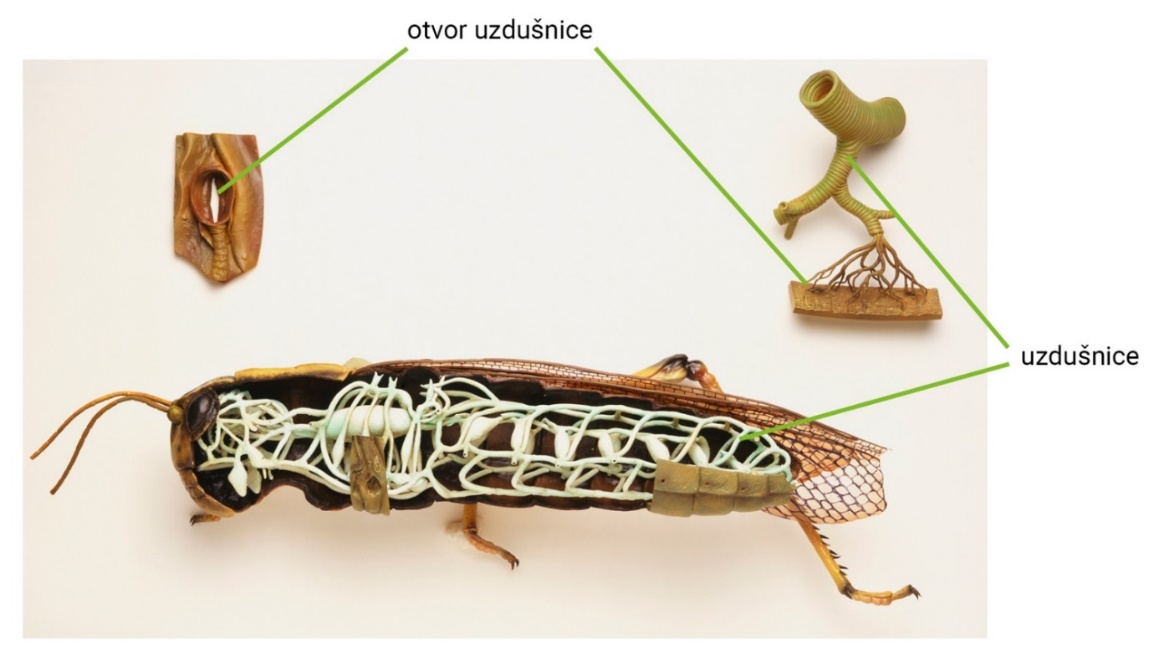
|  |
| --- |
| **Člankonošci** |
| * nazvani po **člankovitim** nogama (noge savitljive, za brzo kretanje) * **Rakovi** * **Klještari (pauci, škorpioni, grinje i krpelji)** * **Kukci** * prvi kopneni beskralješnjaci * prilagodbe: posebni organi za disanje, čvrst vanjski pokrov - zaštita od isušivanja  |  |  |  |  | | --- | --- | --- | --- | | **Člankonošci** | | | | | **osobine** | **rakovi** | **pauci** | **kukci** | | tijelo dijelimo na | glavopršnjak i zadak | glavopršnjak i zadak | glava  prsa  ?\_\_\_\_\_\_\_\_\_\_\_\_ | | broj parova člankovitih nogu | 5 pari | ?\_\_\_\_\_ para | ?\_\_\_\_\_\_\_\_\_\_ para |   Potpuna preobrazba (pčele, leptiri):  1. jaje 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3.\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. odrasli kukac (IMAGO)  Nepotpuna preobrazba (skakavci, vretenca): nedostaje stadij \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Prilog 1. Predstavnici člankonožaca



Dopuni: A ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ B ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ C ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

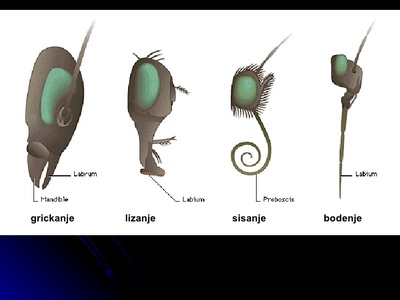
Prilog 2. Uzdušnice kod kukaca - način disanja posebnim cjevčicama



Dopuni: Što se dogodi osi, kada leti za kupačem i padne na morsku površinu?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

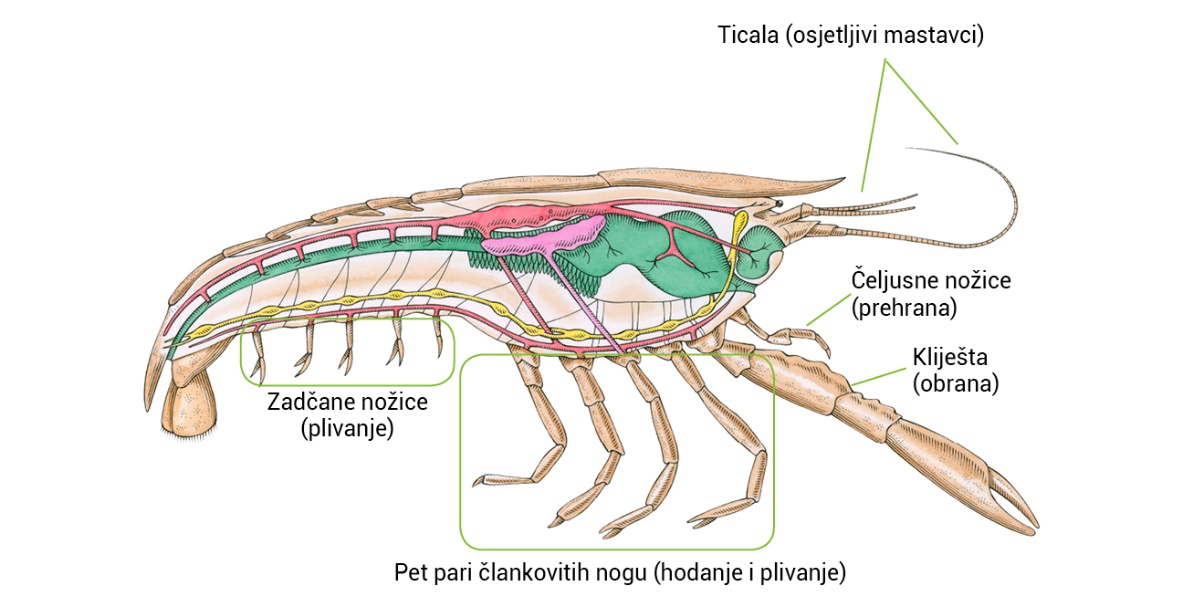
Prilog 3. Usni organi kod kukaca



Dopuni: Komarac (ženka) ima usne organe za: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

a leptir koji ulazi duboko u cvijet po slatki sok (nektar) ima usne organe za:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Prilog 4. Građa raka



Dopuni: Noge kod rakova služe za ? (broj)\_\_\_\_\_\_\_\_ aktivnosti.

Ticala služe za\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Rakovi žive isključivo u: a) vodi

b) kopnu

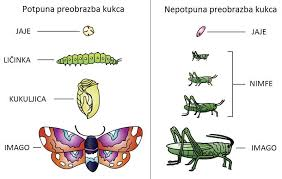
Prilog 5. Mozaične (složene) oči kod kukaca



Dopuni: S obzirom da muhe imaju oči građene poput kupole aviona, zašto je gotovo nemoguće

uloviti muhu koja je na zidu?­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Prilog 6. Potpuna i nepotpuna preobrazba kukaca



Dopuni: Leptiri, za razliku od skakavaca, kad su mali ne izgledaju kao leptiri, već se zovu gusjenice ili\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Takav način rasta i razvoja zove se potpuna\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Ponovimo: 1. Koje skupine ubrajamo u člankonošce?

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_,

B \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ,

C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

2. Po čemu su člankonošci dobili ime? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Na crtežu označi dijelove tijela kukca. Oboji lijevi crtež ili nacrtaj kukca po želji služeći se knjigom “ Kako nacrtati kukce”.

