

Energy in biomass

Mark scheme

1. (a) In sequence: 1
 heron
 frog
 slug
 lettuce
- (b) (i) light / sun 1
ignore photosynthesis / respiration
cancel mark if water / ions etc given
*do **not** accept heat*
- (ii) traps / absorbs light 1
accept energy for light
*do **not** accept collects / attracts*
*do **not** accept 'traps sun'*
- (iii) 162 2
if correct answer, ignore working / lack of working

$$\frac{10 \times 1620}{100} \text{ for 1 mark}$$
- [5]**
2. (a) levels in correct order
 sizes correct 2
for 1 mark each
- (b) (i) working
 0.96% (correct answer = 2) 2
for 1 mark each
- (ii) 2 of e.g.
 heat up leaves 2
 absorbed by non-photosynthetic parts
 transmitted through leaves
any 2 for 1 mark each
- (iii) 3 of e.g.
 respiration of primary consumers 3
 movement of p.c.
 waste from p.c.
 repair/growth of p.c.; heat losses to
 surroundings
any 3 for 1 mark each
- [9]**