

Task: Wasps

Approach: Team

Year: 8

Focus: Scientific questions and fair testing

Resources: 2 team answer sheets, question card, video recording on laptop computer (*no sound*)

Questions / instructions:

This activity uses the computer.

Scientists watch wasps in their natural surroundings then do experiments to find out more about them. Watch the wasps on the video and think about some good questions you could ask a scientist to investigate.

Click the *Wasps* button.



DESCRIPTION: No soundtrack; video of wasps constructing a nest and cells, laying eggs, larvae, drones hatching, life cycle starting again.

[Video: © NHNZ Wild South – Bandits of the Beech Forest. [video], (1996). Dunedin: Natural History N.Z. Ltd. Question card below: Davis, H. (photo.); http://static.flickr.com/27/59396660_6c0355b9a9_b.jpg. Retrieved March 2008.]

Hand students team answer sheet 1.

- Write down three good science questions about wasps that you could ask a scientist to investigate.

Questions proposed:

- question 1 is a question that a scientist might investigate
- question 2 is a question that a scientist might investigate
- question 3 is a question that a scientist might investigate

Hand students question card.

Here is a question that was asked of a scientist - "Do wasps see in colour?"



[Substituted resource in of copyright: eastern-yellowjacket.jpg Retrieved from: http://www.entomology.wisc.edu/insectid/insect_info.php?411 University of Wisconsin (28 May 2008.)]

Hand students team answer sheet 2.

- As a team plan how you could carry out an investigation to find out if wasps can see in different colours.

% responses
y8

67
81
75

Elements included in the plan:

- set up tasks involving choice between two or more different colours to fly/move to
- observe what happens/watch/see
- replicate with multiple wasps
- replicate with different arrangements of the colours
- all other things held the same (e.g. food, position, equally apart, time span)

Practicality of the idea:

- relatively easy to carry out
- difficult to carry out/not enough information
- impossible or highly improbable
- no relevant idea

Total score: 8–10
6–7
4–5
0–3

% responses
y8

68
78
9
7
12
33
35
19
13
23
35
26
16

Commentary:

Because this was a team task, no graph of subgroup performance is possible. Many of the year 8 teams of students made quite a good attempt at what was a challenging task in experimental design.