

Science

Name: ()

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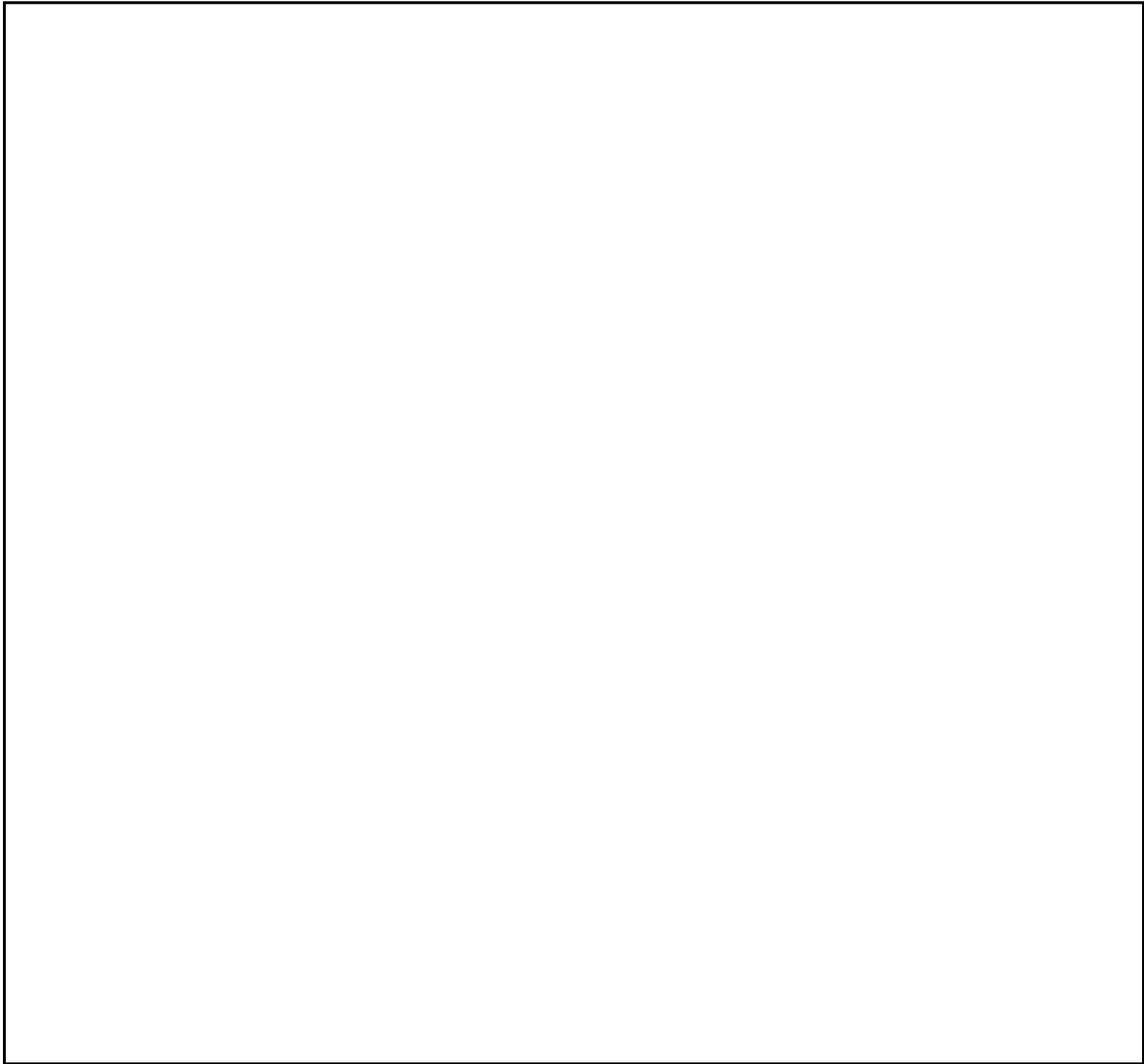
The Scientific Method – Alienate This!

Imagine that an interplanetary spacecraft from Earth landed on a planet orbiting the star Betelgeuse, in the constellation of Orion. As astronauts from the spacecraft explored the planet, they came across a strange organism. In a record of their exploration, one astronaut wrote the following report about the organism:

| Astronaut's Report About the Organism | Observation | Inference |
|---|--------------------------|--------------------------|
| a) The organism frowned to show that it did not like strangers. | <input type="checkbox"/> | <input type="checkbox"/> |
| b) The organism is green, with brown spots. | <input type="checkbox"/> | <input type="checkbox"/> |
| c) The organism lives near other small, colourful organisms. | <input type="checkbox"/> | <input type="checkbox"/> |
| d) The organism moved away from us because it was afraid. | <input type="checkbox"/> | <input type="checkbox"/> |
| e) The organism makes gurgling noises. | <input type="checkbox"/> | <input type="checkbox"/> |
| f) The organism has four toes on each foot and each foot is webbed. | <input type="checkbox"/> | <input type="checkbox"/> |
| g) The organism has one blue eye and two purple ears. | <input type="checkbox"/> | <input type="checkbox"/> |
| h) The planet must be hot because the organism was perspiring. | <input type="checkbox"/> | <input type="checkbox"/> |
| i) The organism can turn its head in a complete circle. | <input type="checkbox"/> | <input type="checkbox"/> |
| j) The organism moves slowly, so it must be old. | <input type="checkbox"/> | <input type="checkbox"/> |
| k) The organism can pick-up objects with its three fingers. | <input type="checkbox"/> | <input type="checkbox"/> |
| l) The organism's arms are longer than its legs. | <input type="checkbox"/> | <input type="checkbox"/> |
| m) The organism must like eating yellow plants because it is holding ten of them. | <input type="checkbox"/> | <input type="checkbox"/> |
| n) The organism has no fingernails or toenails. | <input type="checkbox"/> | <input type="checkbox"/> |

1. Show whether each statement is either an *inference* or an *observation* by placing a tick in the relevant box – . Remember, an observation is something that you see, hear, taste, smell or touch. An inference is something you might decide about an object or an event after you have observed it. When were the astronauts observing? When were the astronauts deciding something they did not really observe?

2. In the space provided below, make a *drawing* of the organism. Your drawing should show only what the astronauts observed.



• Adapted from Gifted Education Branch, Ministry of Education, Singapore.

- Scan the QR code given below to view the answers to this assignment.



http://www.nygh.sg/nature_of_science/worksheets/8_alienate_this_ans.pdf