

Big Question

How are the traits (structural/behavioral) of your organism adapted to help it survive in its environment?

Investigations Needed:

- ① What traits does your organism exhibit?
(structures/behaviors)
- ② How do these traits function to promote its survival?
- ③ What are your organism's food preferences? (behavioral response)
- ④ What environmental conditions does your organism need in order to survive? thrive?
- ⑤ Build a Model Habitat designed to meet your organism's needs

Food Preference Investigation

Date _____

Time _____

Question

Are _____ omnivores, carnivores,
or herbivores? What foods do they prefer?

~~Answer:~~

① Personal Knowledge

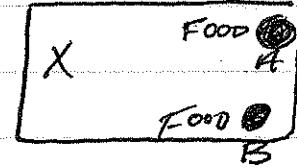
② scientific/secondary knowledge
(confirm or disprove)

Prediction

Hypothesis

→ Investigation Plan

Wahlplan:
(Choice)



- ① Get a test chamber
- ② Choose two foods to test & place in separate corners of test chamber. Start w/ meat vs veggie.
- ③ Run trials until strongly confident of your results. Record observations on a chart(s)
- ④ Determine omnivore/~~er~~/carnivore/herbivore
- ⑤ Once (#4) is determined run tests to determine food preferences
- ⑥ Explain results
- ⑦ Evaluate results

FAIR TEST GUIDELINES

FOOD Tests:

YES

No

Qualitative/Notes

Test A

T1

X

T2

T3

T4

T5

TOTALS

Test B

T1

X

T2

T3

T4

T5

Totals

Test C

T1

X

T2

T3

T4

T5

Totals

Test D

T1

X

T2

T3

T4

T5

Totals

→ Data Analysis ~~AAA~~

Explanation

→ Claim

→ Evidence

→ Reasoning

→ Application

Questions:

What role does your organism play in the ecosystem?

~~How~~ How is food preference related to structural/behavioral traits exhibited by your organism?

Evaluation n:

- (a) What are the sources of error?
- (b) What would you do differently next time?
- (c) How confident are you in your results?
- (d) What surprised you?
- (e) What would your prediction be if you conducted this investigation again?
- (f) What question would you like to pursue next?
 - Time of day?
 - Time of year?
 - Vitamins mineral supplements?

Title: _____

Date: _____
Time: _____

What environmental conditions does your organism need in order to survive?

Example:

Question (s):

What light does a _____ prefer?

What temperature does a _____ prefer?

What moisture does a _____ prefer?

What soil does a _____ prefer?

What pH does a _____ prefer?

→ Knowledge
Hypothesis

Ⓐ Personal Knowledge

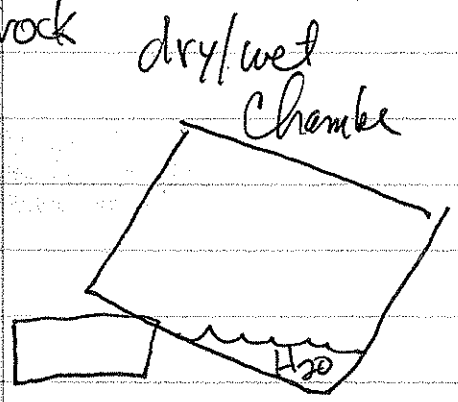
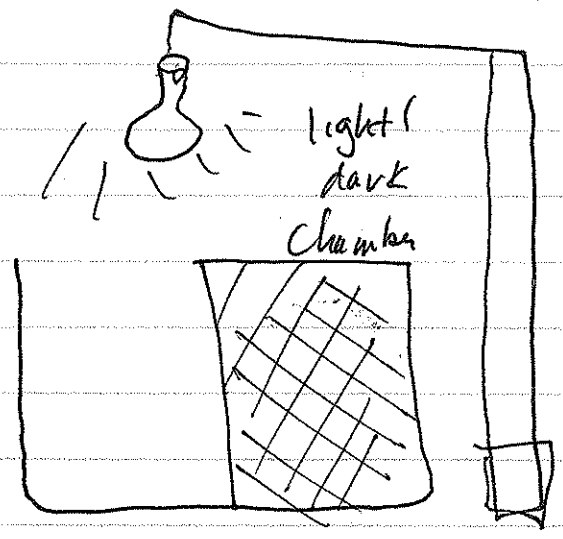
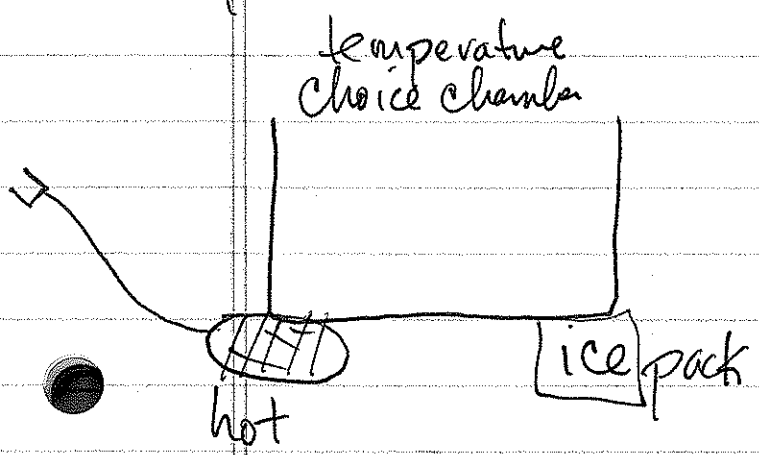
Ⓑ Scientific / 2nd hand Information

Prediction / Hypothesis

Design a Fair test

① Build/ create a test (choice) chamber

Examples:



- ② Run ~~tests~~ trials until you are strongly confident in your results / record observations in a chart (quantitative / qualitative)
- ③ Analyze / Explain / Evaluate your results

Observation (5)

Trial	Light at	Dark	No Choice	Qualitative/ notes
1				
2				
3				
4				
5				

→ Data Analysis

Explanation

→ Claim

→ Evidence

→ Reasoning

→ Application

(A)

How does environmental condition preference relate to the structural/behavioral traits of your organism?

(B)

Using results from your investigation improve your organisms model habitat

Evaluation

- (a) What could be sources of error?
- (b) What would you do differently next time?
- (c) How confident are you in your results?
- (d) What surprised you?
- (e) What would your prediction be if you did your investigation again?
- (f) What question would you like to pursue next?