

Inoa: \_\_\_\_\_

Lā: \_\_\_\_\_

### Ka Nānā Pono 'Ana

Nā mea pono:

1 lā'ī                      1 lā'ī malo'o

lula mekilika

Nā 'anu'u hana:

1. E kaha i pakuhi e like me ka pakuhi o lalo iho nei. E ho'ohana i ka hope o kēia pepa.

Kāu i 'ike ai	Ka Lonoa a i 'ole mea pono i ho'onana 'ia ai

2. E nānā pono i ka lā'ī a e kākau i 4 mea āu i 'ike ai mai ka **nānā** 'ana, ka **ho'opā** 'ana a me ka **honi** 'ana.
3. E kākau mai i 4 "observations" me ka ho'ohana 'ana i kāu lula mekilika.
4. E hana hou i ka hana no ka lā'ī malo'o. E kākau i kāu i 'ike ai, i ho'opā ai a i honi ana ma ka pakuhi. E kaha i pakuhi hou no kēia mahele o ka hana.
5. E nānā hou i kāu mau mea i kākau ai. E kākau i ka "L" i mua o nā mea like. E kākau i ka "O" i mua o nā mea 'oko'a.
6. E wala'au ma ka hui e pili ana i kēia mau mea like a me nā mea 'oko'a.

Inoa: \_\_\_\_\_

Lā: \_\_\_\_\_

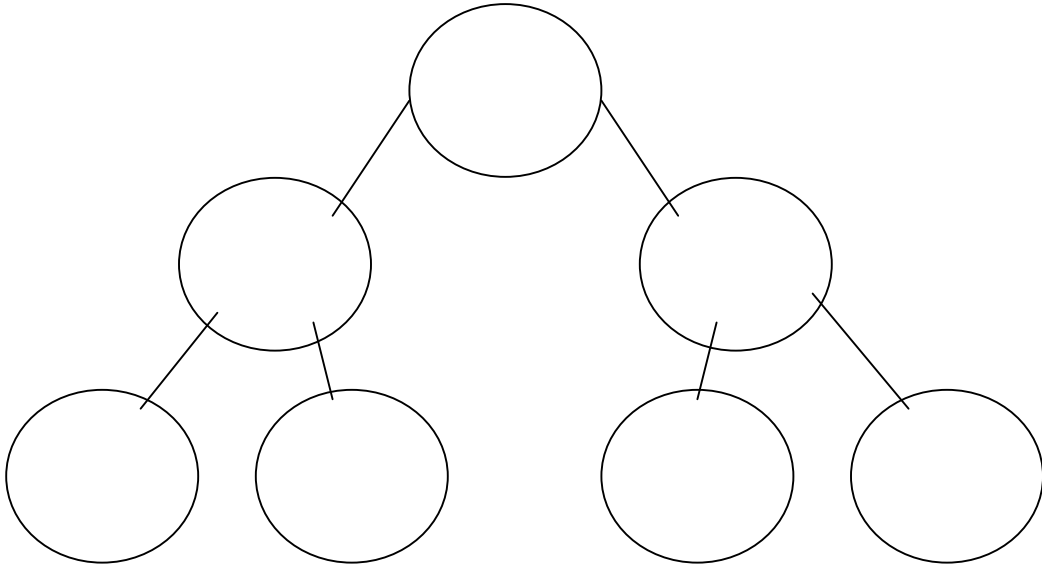
Ka Ho'onohonoho 'Ana

Nā mea pono:

Ka mea hō'ike'ike lā'ī i hana mua 'ia.

Nā 'anu'u hana:

1. E nānā pono 'oe i ka mea hō'ike'ike lā'ī.
2. E ho'onohonoho i nā lā'ī. E ho'ohana 'oe i ka pakuhi (web chart) ma lalo iho nei. 'O ka mua, e ho'onohonoho i nā lā'ī ma 'elua hui. Ma nā pō'ai o luna, e kākau i ke 'ano 'o ia mau lā'ī (ka nui, ka hinona, ka waiho'olu'u, a pēlā wale aku) āu i koho ai no ka ho'onohonoho 'ana i nā lā'ī. E ho'omau 'oe i ka ho'onohonoho 'ana a ho'onohonoho 'ia nā lā'ī pakahi a pau.



3. E koho 'oe i ka lā'ī. E wehewehe 'oe i kou hoapakanā i nā hi'ohi'ona āu i koho ai no ka ho'onohonoho 'ana i ka lā'ī. Hiki i kou hoapakanā ke koho i ka lā'ī? Inā 'ae, no ke aha? Inā 'a'ole, no ke aha?

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# No Ke Koho 'Ana

## Nā Pono Hana:

4 lau lā'ī ola like 'ole  
kaula

4 lau lā'ī malo'ō like 'ole

peni kuni

lula

pine pepa nui

\*E koho i nā lau ma lalo o 12 'inihā no ke kahe maika'i 'ana o ka ha'awina.

## Ke Ka'ina Hana:

1. E ho'ohui i nā keiki ma 4 hui, e hā'awi aku i nā hui pākahi i nā mea pono hana.
2. E ho'ohelu i nā lau ola me ka helu 1 a i 4. A pēlā nō ka hana me nā lau malo'ō.
3. E koho i ka lō'īhi o nā lau ola a me nā lau malo'ō ma ka 'inihā a ma ke ana Hawai'i (ke kīko'o a i 'ole ka poho) a e kākau i nā koho ma ka pakuhi.
4. E koho i ke kaumaha me ka ho'ohālike 'ana i ko nā lau kaumaha me ke kaumaha o ka pine pepa (ex. like kona kaumaha me 4 pine pepa). E kākau i nā koho ma ka pakuhi.

Ka Lau Lā'ī Ola	Ka Lō'īhi (in.)	Ka Lō'īhi (Hawai'i)	Ke Kaumaha
#1			
#2			
#3			
#4			

Ka Lau Lā'ī Malo'ō	Ka Lō'īhi (in.)	Ka Lō'īhi (Hawai'i)	Ke Kaumaha
#1			
#2			
#3			
#4			

# No Ke Ana 'Ana

## Nā Pono Hana:

lau lā'ī ola	kaula	pine pepa nui
lau lā'ī malo'ō	leki	lā'au 'ai
lā'au ana		

\*E ho'ohana i nā lau lā'ī like mai ka ha'awina mua, "No Ke Koho 'Ana")

## Ke Ka'ina Hana: (E hana ma nā hui haumāna like.)

### **No ka lō'ihī:**

1. E ana i ka lau lā'ī ola me kekahi kaula mai ke wēlau a i ke 'au a e 'oki i ia kaula. E ana i ka lō'ihī o ia kaula ma ka 'īnihā kokoke loa me ka lā'au ana a e kākau ma ka pakuhi. A laila e ana hou i ia kaula me ka ho'ohana pū 'ana i kekahi ana Hawai'i. E kākau i nā 'ikepili ma ka pakuhi. Pēlā nō ka hana me ka lā'au malo'ō.

### **No ke kaumaha:**

1. E ana i kekahi kaula he 20 'īnihā ka lō'ihī a e 'oki. E nāki'i kekahi 'ao'ao o ia kaula ma ka waena o kekahi hapa o ka lā'au 'ai. E leki i ka 'ao'ao a'e o ia kaula ma ka 'ao'ao o ke pākaukau. Pono ka lā'au 'ai e ho'olewalewa ma ke kaulike 'ana o nā 'ao'ao 'elua i like kona ho'olewalewa 'ana me ka papahale o lalo nei. Inā pono e ho'oponopono a kaulike nō.

2. E leki i ka lau lā'ī ola ma ho'okahi 'ao'ao o ka lā'au 'ai. No ka pine pepa, e pelu hou i nā pine i hiki ke ho'olewalewa maika'i ai ma ka 'ao'ao a'e o ka lā'au 'ai. E helu 'ehia pine pepa e pono ai a kaulike ka lā'au 'ai. E kākau i nā 'ikepili ma ka pakuhi. E hana hou me ka lau lā'ī malo'ō.

Ka Lā'ī Ola	Ka Lō'ihī (in.)	Ka Lō'ihī (Hawai'i)	Ke Kaumaha
#1			
#2			
#3			
#4			
Ka Lā'ī Malo'ō	Ka Lō'ihī (in.)	Ka Lō'ihī (Hawai'i)	Ke Kaumaha
#1			
#2			

#3			
#4			

**Nā 'Ikepili:**

1. E nānā i nā 'ikepili ma ka pakuhi. E ho'ohālike i nā 'ikepili i loa'a no ka lau lā'i ola a me ka lau lā'i malo'o me nā 'ikepili mai ka ha'awina "No ke Koho 'Ana".

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**Ha'awina Ho'onui'ike.**

E mālama i nā lau lā'i ola helu 1 a i 4 a malo'o. Ke malo'o, e ana hou a e huli hou i kona kaumaha a e ho'ohālike me nā 'ikepili mua i loa'a ma kona 'ano he ola.

## **Ka Wānana ‘Ana i Ke Kuhiakau**

### **Nā Pono Hana:**

ka ‘au kī

### **Ke Ka’ina Hana:**

1. Ma hope o ka nānā ‘ana, kupu mai kekahi mau nīnau. I kekahi manawa, kākau ‘ia ka nīnau ma ke ‘ano he pilikia. Ke loa‘a kekahi pane i ka nīnau, kapa ‘ia kēia he kuhiakau.

2. E ho‘oma‘ama‘a i ka haku ‘ana i nā kuhiakau ma lalo iho nei.

### **Ka Pilikia**

Ua like a like paha ka waiho‘olu‘u kala like o ka lau lā‘ī me ko ka lau kai ke ‘uwī ‘ia.

Pehea i hiki ke ho‘owāhi ‘ia kekahi lau lā‘ī me ka lima i ‘elua mahele like.

Pehea i hiki ka nui/lō‘ihi o ka lau lā‘ī ke hō‘ike i ka wikiwiki o kona pā ‘ana i ka papahale ke ho‘oku‘u ‘ia mai kahi wahi ki‘eki‘e.

### **Ke Kuhiakau**

E like ana ka waiho‘olu‘u o ka lau me kona wai ke ‘uwī ‘ia.

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### **Ke Ka’ina Hana**

E ‘aiana i nā lau ma nā ‘ole a palupalu. E wili i ‘elua lau i like kona waiho‘olu‘u ma luna o kahi kāwele pepa ke‘oke‘o a puka aku kai.

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## Ke Ka'a'ike 'Ana

### Nā mea pono:

2 lā'ī ola	ka 'ūpā	ke kaula
nā peni kuni	ka leki	
nā pepa 'ānue	ka tuko	

### Nā 'anu'u hana:

1. E ki'i i ho'okahi lā'ī
2. Me nā mea pono hana no'eau, e kūkulu 'oe i holoholona me ka lā'ī.
3. E kākau 'oe i nā 'anu'u hana āu i hana ai no ke kūkulu 'ana i kāu holoholona. E kākau mai ma lalo iho nei nā 'anu'u hana.

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4. Ke pau kou wehwehe 'ana i nā 'anu'u hana, e kuapo ana 'oe i kāu pepa me kekahi hoapapa a e kūkulu ana kou hoapapa i kāu holoholona me ka hahai 'ana i nā 'anu'u hana āu i kākau ai.
5. E ho'ohālikelike 'oe i kāu holoholona me kā kou hoapapa. He aha nā mea like? He aha nā 'oko'a? No ke aha?
6. E hana like 'oe me kou hoapapa a e kākau 'olua i nā 'anu'u hana i mōakāka loa. E kākau ma ke kua o kēia pepa nei.

Ka Papa Hua'ōlelo Hou  
Word List

1. ka 'ike sense  
*ka 'ike i ka 'ono (sense of taste), ka 'ike i ka maka (sense of sight)*
2. ka mea pa'ahana instrument
3. a. ka lula mekilika metric tape  
e. ka lula mekele
4. ka nānā 'ana observations
5. ka ho'onohonoho classify
6. ka papa ho'onohonoho classification board
7. ka hi'ohi'ona features
8. ka hō'ike; ka hō'ike'ike display
9. ka hō'oa identify
10. ka ho'okolohua to perform an experiment
11. koho estimating
12. ana measuring
14. wānana i ke kuhiakau hypothesizing
15. ka'a'ike communicating
16. kālailai 'ikepili analysis