

WARNING — This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

WHAT IS LIFE?

Part 1: Overhead-projector observations

Observe the activities in the petri dish. Record what you see.

Answers will vary.

Part 2: Sorting living/nonliving pictures

After you sort the picture cards, record the objects you put in each category.

Living	Nonliving	Undecided
baby	bicycle	bananas (seeds)
corn (seeds)	fire	eggs (fertile, yes; infertile, no)
cactus	icicles	tree (yes) and leaves (no)
frog	rain	spider (yes) and web (no)
horse	robot	rocking horse
onion	teddy bear	tornado
peas (seeds)	rocking horse	sun
jellyfish	tornado	
potatoes	sun	
mushrooms (spores)		
yogurt (bacteria)		

Part 3: Characteristics of all organisms

List the characteristics shared by all organisms that the class agreed on.

Answers will vary.

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LIFE IN DIFFERENT ENVIRONMENTS

Liquid 1 <u>salt water</u>			
Material	Is it alive?		Evidence of life
A sand	yes	<input checked="" type="radio"/> no	none
B yeast	yes	<input checked="" type="radio"/> no	none
C poly crystal	yes	<input checked="" type="radio"/> no	none
D radish seed	<input checked="" type="radio"/> yes	no	a little sprouting
E shrimp eggs	<input checked="" type="radio"/> yes	no	brine shrimp swimming

Liquid 2 <u>sugar water</u>			
Material	Is it alive?		Evidence of life
A sand	yes	<input checked="" type="radio"/> no	none
B yeast	<input checked="" type="radio"/> yes	no	bubbles; cap popped off
C poly crystal	yes	<input checked="" type="radio"/> no	none
D radish seed	<input checked="" type="radio"/> yes	no	sprouting
E shrimp eggs	yes	<input checked="" type="radio"/> no	none

Liquid 3 <u>plain water</u>			
Material	Is it alive?		Evidence of life
A sand	yes	<input checked="" type="radio"/> no	none
B yeast	yes	<input checked="" type="radio"/> no	none
C poly crystal	yes	<input checked="" type="radio"/> no	none
D radish seed	<input checked="" type="radio"/> yes	no	sprouting
E shrimp eggs	yes	<input checked="" type="radio"/> no	none

LIVING OR NONLIVING?

1. Copy in the spaces below your class list of characteristics that define life.
2. Use this definition to decide whether the objects below are living or nonliving.
3. *If it is living*, explain how you know.
4. *If it is nonliving*, explain why someone might think it is living.

Characteristics of life

1. grows
2. reproduces
3. needs food (energy)
4. removes waste
5. needs water
6. exchanges gases
7. responds to the environment
8. _____

Object	Living or nonliving?	Evidence or explanation
Mushroom	living	grows; has spores
Cheese	living	has bacteria living inside
Ear of corn	living	seeds
Rain	nonliving	
Sun	nonliving	
Eggs	living	if fertile and fresh
Waterfall	nonliving	
Fire	nonliving	
Robot	nonliving	