

Animal Cell

Label the structures of an animal cell.

NAME: _____

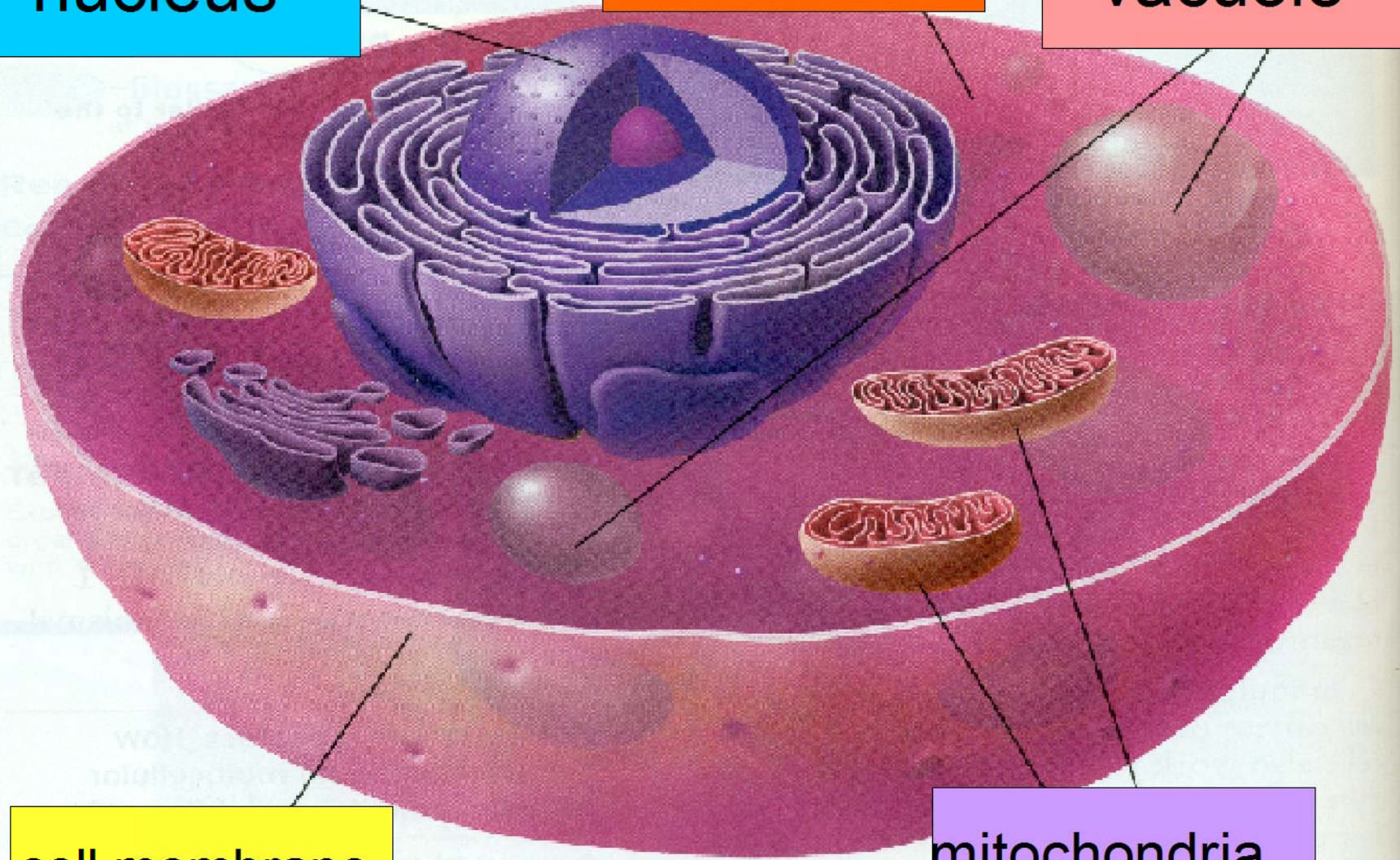
nucleus

cytoplasm

vacuole

cell membrane

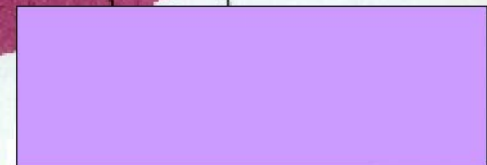
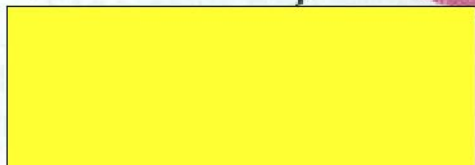
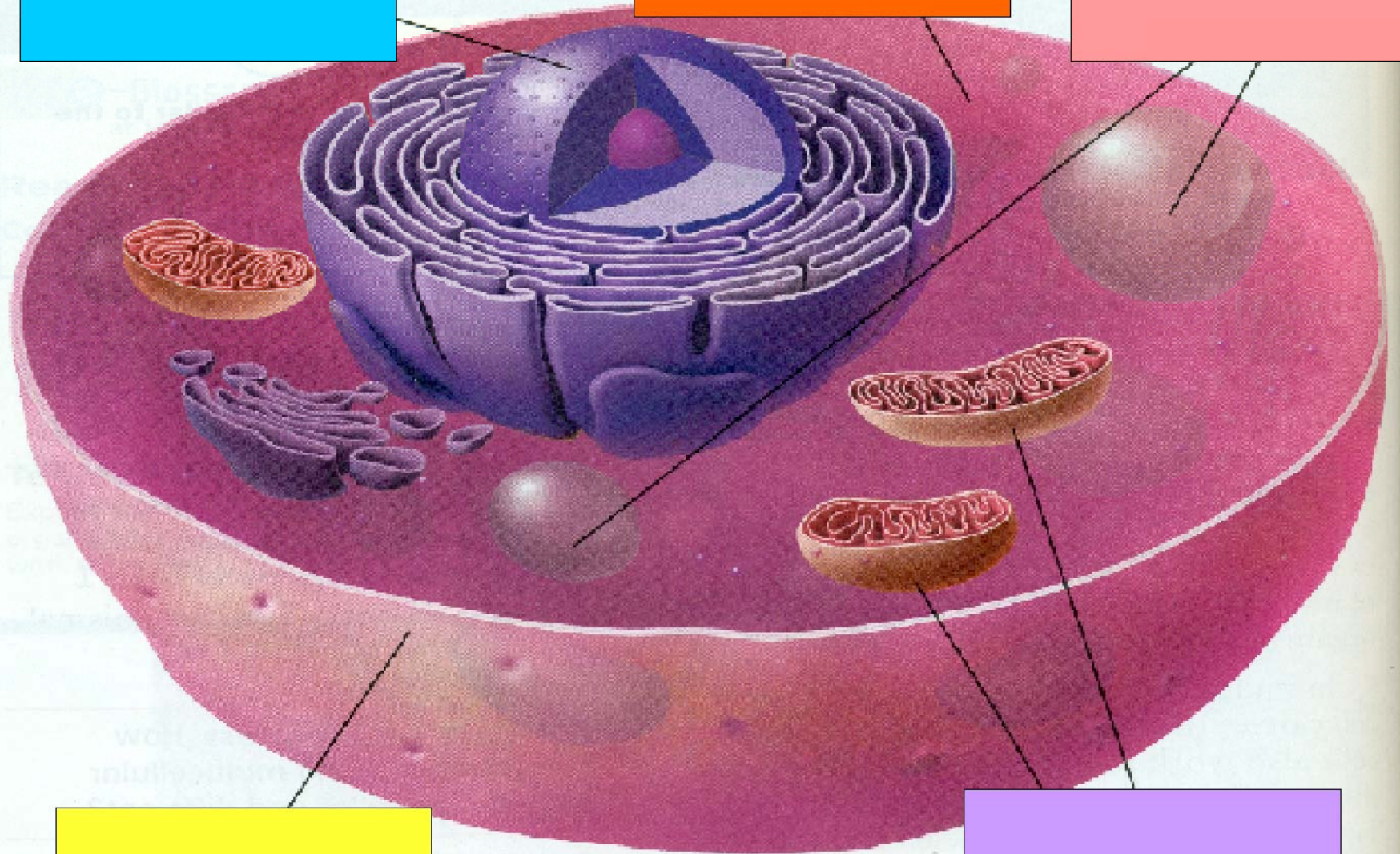
mitochondria



Animal Cell

Label the structures of an animal cell.

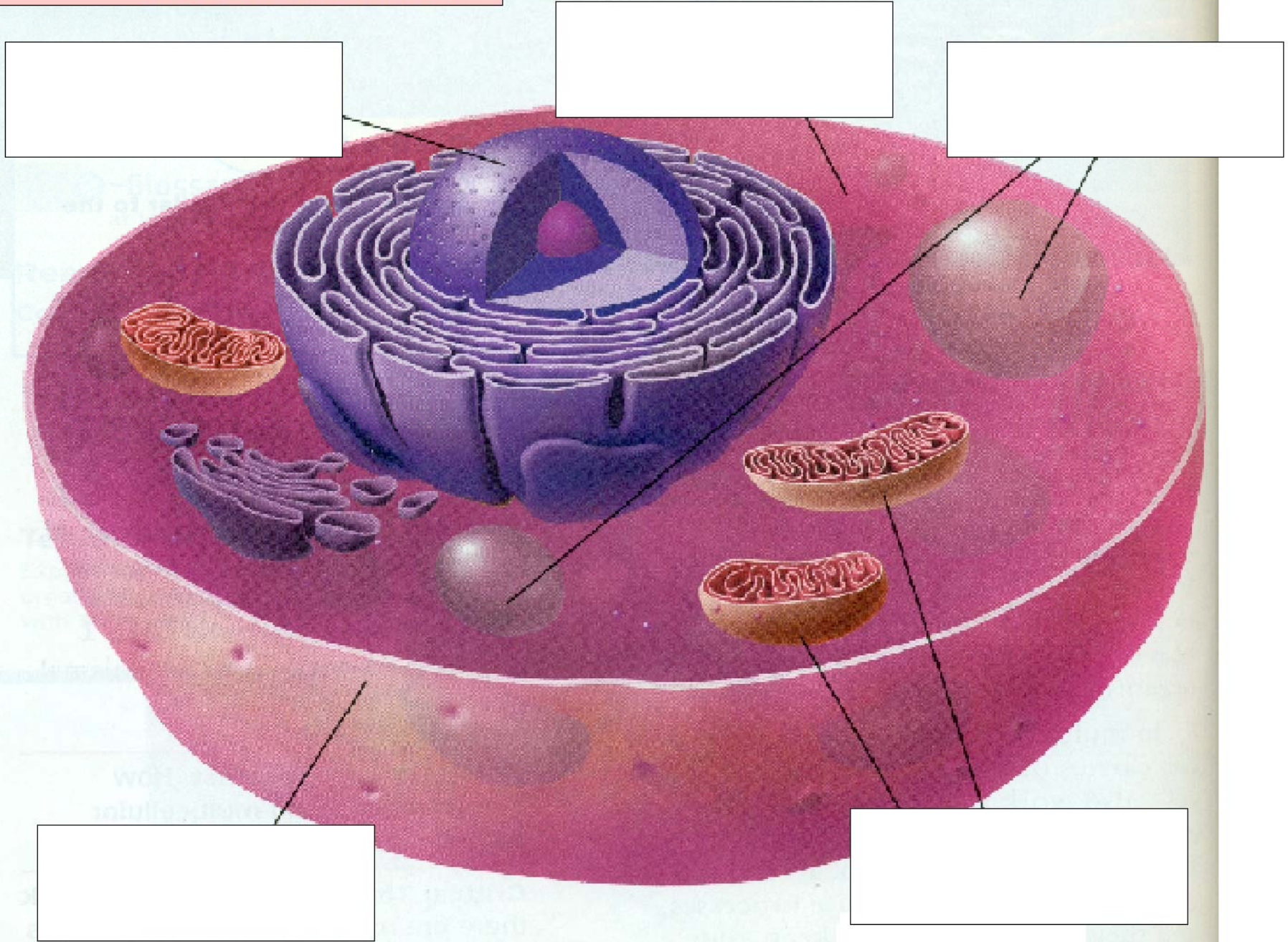
NAME: _____



Animal Cell

Label the structures of an animal cell.

NAME: _____



nucleus	nucleus
cytoplasm	cytoplasm
vacuole	vacuole
cell membrane	cell membrane
mitochondria	mitochondria

EOI Biology

label and analyze

Performance Level 3

This activity is designed to allow students to identify at least 3 parts of an animal cell and then to analyze two cell investigations.

Level I: Match same name/color label to the same name/color label on the diagram.

Level II: Match the same color/name label to the same color label on the diagram.

Level III: Match the white name label to the color label on the diagram.

Level II: Either place the pre-printed label or write in the label on the blank label on the diagram.

**Note, you can increase or decrease the level of difficulty for students who write in the name of the structure by providing them the label and/or a word bank from which to copy the word or by asking them to write the label name from memory.

Instructions:

Make sure Boardmaker is in Design mode (press CTRL + D or ESC to change to Design mode).

Print the cell diagram needed for your student.

Print the labels needed for your student.

Allow student to cut apart labels and/or cut them out for the student.

Allow the student to tape, glue or otherwise place/write the label in the correct spot on the diagram.

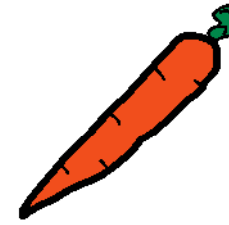
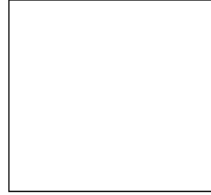
Print out investigation and place in page protectors. Print out analyzing page and cut out answers and use velcro to place answer on outside of page protector.

This activity was modified by Stefanie Olson (stefanie-olson@ouhsc.edu) from an activity found on Boardmaker Share created by Shannon Curtis titled "Cell diagrams"

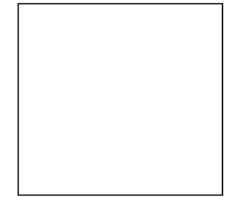
Materials Needed



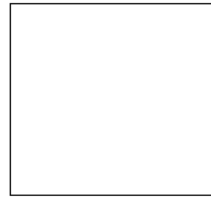
Celery



carrots



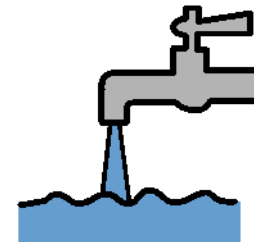
3 clear jars



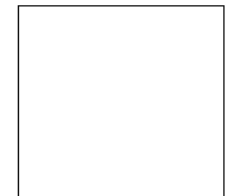
3 clear jars



Water



Water



Red Blue & Purple
food coloring



Red Blue & Purple
food coloring



PROCEDURE

Print out and cut apart these procedures to use during your experiment. Note, there are photographs of each procedure which can be used to help with comprehension of the text.

1



Select

3



stalks

of



celery



with



leaves.

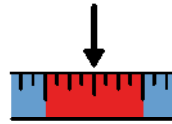
2



Cut

$\frac{1}{2}$

1/2



inch



off



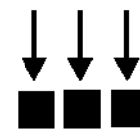
the



bottom



of



each



stalk.

3



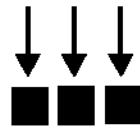
Look



carefully



at



each



stalk



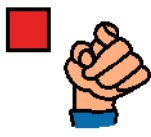
and



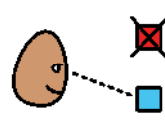
leaves.



Write down



your



observations



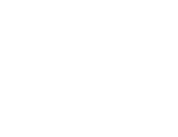
and



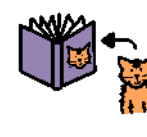
make



a



prediction



about



what will happen.

4



Pour

$\frac{1}{2}$

1/2



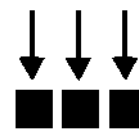
cup



water



into

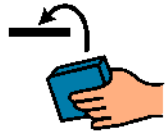


each



glass.

5



Put

10

10 drops



of



red food coloring



in

1

1



jar,

10

10 drops



of



blue food coloring



in

1

1



jar,



and

5

5 drops



of



red food coloring



and

5

5 drops



of



blue food coloring



in

1

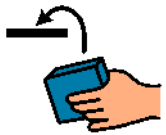
1



jar.

6

6.



Put

1

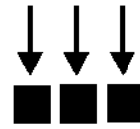
1



stalk of celery



in



each



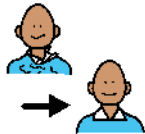
jar.



Stir gently.

7

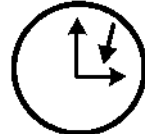
7.



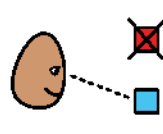
After

2

2



hours



observe



the



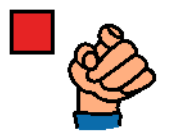
celery



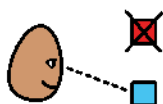
and



write



your



observations



in



your

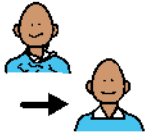


science



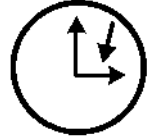
journal.

8.

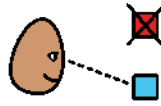


After

4



hours



observe



the



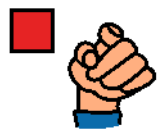
celery

&

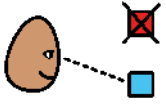
and



write



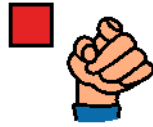
your



observations



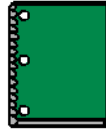
in



your



science



journal.

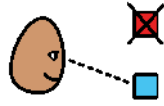
9.



The



next day



observe



the



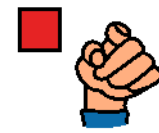
celery

&

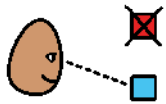
and



write



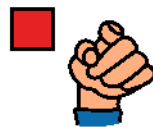
your



observations



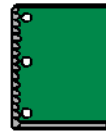
in



your



science



journal.

Science Journal

Name:

PREDICTION



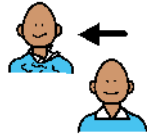
Color



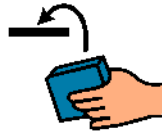
of



celery



before



put



in



colored water.

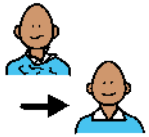
red



green



purple



After



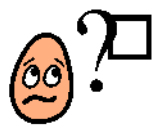
the



experiment



I



predict



the

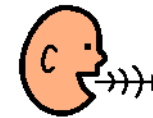


celery



will:

talk



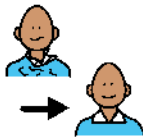






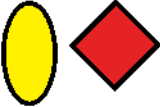
stay the same





change color

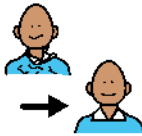

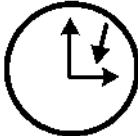



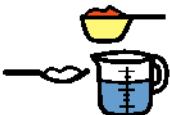


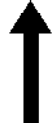
OBSERVATION





 → After
 
 2
 
 hours
 
 does
 
 the
 
 celery
 
 look
 
 different?

yes


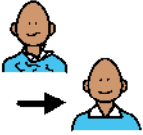

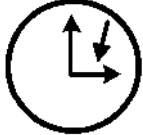




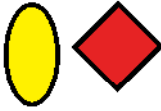
no



 → After
 
 2
 
 hours
 
 water,

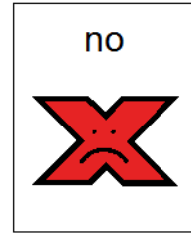
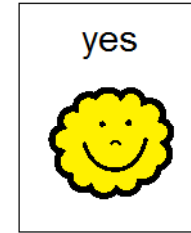

 measure
 
 how far
 
 color
 
 has moved.

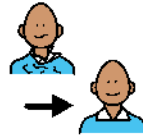

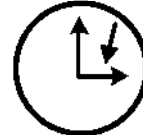

COLOR	AMOUNT OF COLOR MEASURED (INCHES)
red 	
blue 	
purple 	

OBSERVATION, cont.

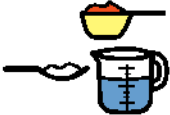












 After 4 hours does the celery look different?






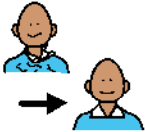






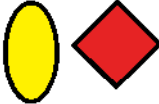
 After 4 hours water,

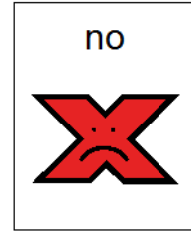
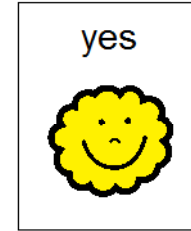





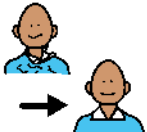



 measure how far color has moved.


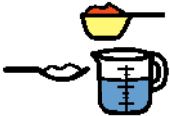


COLOR	AMOUNT OF COLOR MEASURED (INCHES)
red 	
blue 	
purple 	


OBSERVATION, cont.





 After
 
 1
 
 day
 
 does
 
 the
 
 celery
 
 look
 
 different?




 After
 
 1
 
 day
 
 in

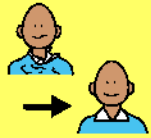

 water,
 
 measure
 
 how far
 
 color


 has moved.

COLOR	AMOUNT OF COLOR MEASURED (INCHES)
red 	
blue 	
purple 	

ANALYZING BOTH INVESTIGATIONS

1.



After



the



experiment

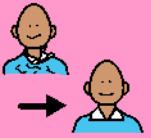


the



celery:

2.



After



the



experiment



the



carrots:

3.



The



color



moved



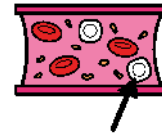
through



the



celery



cells:

4.



The



color



moved



through



the



carrot



cells:

5.



Which



investigation



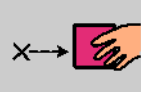
was



successful



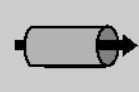
in



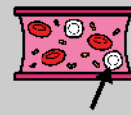
moving



water



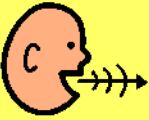
through




cells?

ANSWERS


talked



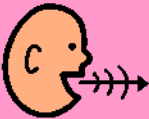
stayed the same




changed color




talked



stayed the same




changed color



yes



no




yes



no



carrots



celery

