Name:	Date:	Class:	
14		 0.000.	

Lab Procedure for Samples Handout

Note to teacher: This file contains 16 sheets to guide group testing of different amounts of corn starch, water, vinegar and glycerin; 4 sheets each.

Phosphorescence in bioplastic: Changing the amount of corn starch (1 of 4)

SAMPLE NAME:		10	g	CS
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corn starch	10 grams
water	60 ml
vinegar	5 ml
glycerin	5 ml
phosphorescence solid	0.6 grams

Procedures	Observations
1. In a 1,000-ml beaker, add 10 grams of corn starch (using	
weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder)	
to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)	
to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder)	
to the same beaker. USE YOUR MEASURED WATER TO GET	
THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER	
IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn	
starch is dissolved and the mixture is thoroughly combined	
6. Measure out 60 ml of the mixture (using a graduated	
cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the	
phosphorescence solid is completely dissolved throughout	
9. Using a hot plate preheated to 400 °C, heat the mixture	
in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR	
THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and	
stir the mixture until it becomes clear or becomes a	
viscous solid that is hard to stir	
BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to transfer the heated mixture	
into a small petri dish that is lined with aluminum foil and	
labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	
overnight	

Name:		Date:	Class:	_
Phosphore	escence in bioplastic: Chan	ging the amoun	t of corn starch (2 of 4)	
SAMPLE NAME:	g CS			
Reaction scheme:		<u></u>		
corn starch	grams			
water	60 ml			
vinegar	5 ml			
glycerin	5 ml			
phosphorescence solid	0.6 grams			

Procedures	Observations
1. In a 1,000-ml beaker, add grams of corn starch (using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder) to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder) to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder) to the same beaker. USE YOUR MEASURED WATER TO GET THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn starch is dissolved and the mixture is thoroughly combined	
6. Measure out 60 ml of the mixture (using a graduated cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the phosphorescence solid is completely dissolved throughout	
9. Using a hot plate preheated to 400 °C, heat the mixture in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and stir the mixture until it becomes clear or becomes a viscous solid that is hard to stir **BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES**	
12. Use the silicone spatula to transfer the heated mixture into a small petri dish that is lined with aluminum foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden overnight	

Name:		Date:	Class:
Phosphoresco	ence in bioplastic: Char	nging the amoun	t of corn starch (3 of 4)
1PLE NAME:	g CS		
action scheme:			
corn starch	grams		
water	60 ml		
vinegar	5 ml		
glycerin	5 ml		
phosphorescence solid	0.6 grams		

Procedures	Observations
1. In a 1,000-ml beaker, add grams of corn starch (using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder) to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder) to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder) to the same beaker. USE YOUR MEASURED WATER TO GET THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn starch is dissolved and the mixture is thoroughly combined	
6. Measure out 60 ml of the mixture (using a graduated cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the phosphorescence solid is completely dissolved throughout	
9. Using a hot plate preheated to 400 °C, heat the mixture in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and stir the mixture until it becomes clear or becomes a viscous solid that is hard to stir **BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES**	
12. Use the silicone spatula to transfer the heated mixture into a small petri dish that is lined with aluminum foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden overnight	

Name:		Date:	Class:
	Phosphorescence in bioplastic: Changin	g the amount of corn	starch (4 of 4)

SAMPLE NAME:		g	CS
--------------	--	---	----

corn starch	grams
water	60 ml
vinegar	5 ml
glycerin	5 ml
phosphorescence solid	0.6 grams

Procedures	Observations
1. In a 1,000-ml beaker, add grams of corn starch (using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder) to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder) to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder) to the same beaker. USE YOUR MEASURED WATER TO GET THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn starch is dissolved and the mixture is thoroughly combined	
6. Measure out 60 ml of the mixture (using a graduated cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the phosphorescence solid is completely dissolved throughout	
9. Using a hot plate preheated to 400 $^{\circ}$ C, heat the mixture in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and stir the mixture until it becomes clear or becomes a viscous solid that is hard to stir **BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES**	
12. Use the silicone spatula to transfer the heated mixture into a small petri dish that is lined with aluminum foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	

Name:	Date:	Class:

Phosphorescence in bioplastic: Changing the amount of water (1 of 4)

SAMPLE NAME:	ml	water
,, ,,,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,		

corn starch	10 grams
water	60 ml
vinegar	5 ml
glycerin	5 ml
phosphorescence solid	0.6 grams

Procedures	Observations
1. In a 1,000-ml beaker, add 10 grams of corn starch	
(using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder)	
to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)	
to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder)	
to the same beaker. USE YOUR MEASURED WATER TO	
GET THE GLYCERIN RESIDUE FROM THE GRADUATED	
CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn	
starch is dissolved and the mixture is thoroughly	
combined	
6. Measure out 60 ml of the mixture (using a graduated	
cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the	
phosphorescence solid is completely dissolved	
throughout	
9. Using a hot plate preheated to 400 °C, heat the mixture	
in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR	
THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and	
stir the mixture until it becomes clear or becomes a	
viscous solid that is hard to stir	
BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to transfer the heated	
mixture into a small petri dish that is lined with aluminum	
foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	
overnight	

Name:		Date:	Class:	-
Phosph	orescence in bioplastic: Cha	inging the am	ount of water (2 of 4)	
SAMPLE NAME:	ml water			
Reaction scheme:				
corn starch	10 grams			
water	ml			
vinegar	5 ml			
glycerin	5 ml			
phosphorescence solid	0.6 grams			
		,		
Proce	edures		Observations	
1. In a 1,000-ml beaker, add	10 grams of corn starch			
(using weigh paper and a bal	ance)			
2. Add 5 ml of vinegar (using	a 10-ml graduated cylinder)			
to the same beaker				
3. Add 5 ml of glycerin (using	g a 10-ml graduated cylinder)			
to the same beaker				
4 Add ml of water (us	sing a 100-ml graduated			

Name:		nate:	Class:	
Phosph	orescence in bioplastic: Cha	inging the amo	unt of water (3 of 4)	
SAMPLE NAME:	ml water			
Reaction scheme:				
corn starch	10 grams			
water	ml			
vinegar	5 ml			
glycerin	5 ml			
phosphorescence solid	0.6 grams			
Proce	edures		Observations	
1. In a 1,000-ml beaker, add :	10 grams of corn starch			
(using weigh paper and a bal	ance)			
2. Add 5 ml of vinegar (using	a 10-ml graduated cylinder)			
to the same beaker				
3. Add 5 ml of glycerin (using	; a 10-ml graduated cylinder)			
to the same beaker				
4. Add ml of water (us	sing a 100-ml graduated			

Phosph	orescence in bioplastic: Cha	inging the amount of water (4 of 4)
SAMPLE NAME:	ml water	
Reaction scheme:		
corn starch	10 grams	
water	ml	
vinegar	5 ml	
glycerin	5 ml	
phosphorescence solid	0.6 grams	
	edures	Observations
1. In a 1,000-ml beaker, add	_	
(using weigh paper and a bal		
2. Add 5 ml of vinegar (using to the same beaker	a 10-mi graduated cylinder)	
	; a 10-ml graduated cylinder)	
to the same beaker	g a 10-iiii graddated cyllider	
to the same beaker		
4. Add ml of water (us	sing a 100-ml graduated	
cylinder) to the same beaker		
WATER TO GET THE GLYCERI	N RESIDUE FROM THE	
GRADUATED CYLINDER IN TH	IE PREVIOUS STEP.	
5. Using a silicone spatula, st	ir the mixture until the corn	
starch is dissolved and the m	ixture is thoroughly	
combined		
6. Measure out 60 ml of the		
cylinder) and dispense into a		
7. Add 0.6 grams of the phosphorescence solid to the 60-		
ml mixture in the 250-ml beaker (from the previous STEP)		
8. Using a clean silicone spatula, stir the mixture until the		
phosphorescence solid is cor	npietely dissolved	
throughout	- d + - 400 °C b + + b + + +	
	ed to 400 °C, heat the mixture	
in the 250-ml beaker 10 USING THE SILICONE SPATE	THE A CONTINUE OF SELECTION	
THE MIXTURE WHILE HEATIN		
11. For 6 minutes and 30 sec		
stir the mixture until it becor		

_____ Date: _____ Class: _____

viscous solid that is hard to stir

overnight

foil and labeled with the sample name

BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES

mixture into a small petri dish that is lined with aluminum

13. Let the phosphorescence bioplastic dry and harden

12. Use the silicone spatula to transfer the heated

Name: _		Date:	Class:	
	Phosphorescence in biopla	stic: Changing the amo	unt of vinegar (1 of 4)	
SAMPLE NAME: _	5 ml vinegar			

corn starch	10 grams
water	60 ml
vinegar	5 ml
glycerin	5 ml
phosphorescence solid	0.6 grams

Procedures	Observations
1. In a 1,000-ml beaker, add 10 grams of corn starch	
(using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder)	
to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)	
to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder)	
to the same beaker. USE YOUR MEASURED WATER TO	
GET THE GLYCERIN RESIDUE FROM THE GRADUATED	
CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn	
starch is dissolved and the mixture is thoroughly	
combined	
6. Measure out 60 ml of the mixture (using a graduated	
cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the	
phosphorescence solid is completely dissolved	
throughout	
9. Using a hot plate preheated to 400 °C, heat the mixture	
in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR	
THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and	
stir the mixture until it becomes clear or becomes a	
viscous solid that is hard to stir	
BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to transfer the heated	
mixture into a small petri dish that is lined with aluminum	
foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	
overnight	

Name:		Date:	Class:
Phospho	rescence in bioplastic: Chai	nging the amo	unt of vinegar (2 of 4)
SAMPLE NAME:	ml vinegar		
Reaction scheme:			
corn starch	10 grams		
water	60 ml		
vinegar	ml		
glycerin	5 ml		
phosphorescence solid	0.6 grams		
Proce	dures		Observations
1. In a 1,000-ml beaker, add 1	LO grams of corn starch		
(using weigh paper and a bala	ance)		
2. Add ml of vinegar	(using a 10-ml graduated		
cylinder) to the same beaker			
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)			
to the same beaker			
4. Add 60 ml of water (using a	a 100-ml graduated cylinder)		
to the same beaker. USE YOU	IR MEASURED WATER TO		
GET THE GLYCERIN RESIDUE I	FROM THE GRADUATED		
CYLINDER IN THE PREVIOUS S	STEP.		
5. Using a silicone spatula, sti	r the mixture until the corn		
starch is dissolved and the mi	ixture is thoroughly		

combined

throughout

overnight

mixture in the 250-ml beaker

THE MIXTURE WHILE HEATING

viscous solid that is hard to stir

foil and labeled with the sample name

6. Measure out 60 ml of the mixture (using a graduated cylinder) and dispense into a clean 250-ml beaker

7. Add 0.6 grams of the phosphorescence solid to the 60-ml mixture in the 250-ml beaker (from the previous STEP) 8. Using a clean silicone spatula, stir the mixture until the

phosphorescence solid is completely dissolved

9. Using a hot plate preheated to 400 °C, heat the

10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR

11. For 6 minutes and 30 seconds, continue to heat and stir the mixture until it becomes clear or becomes a

BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES

mixture into a small petri dish that is lined with aluminum

13. Let the phosphorescence bioplastic dry and harden

12. Use the silicone spatula to transfer the heated

Name:		Date:	Class:	
Phospho	prescence in bioplastic: Char	nging the amo	unt of vinegar (3 of 4)	
SAMPLE NAME:	ml vinegar			
Reaction scheme:				
corn starch	10 grams			
water	60 ml			
vinegar	ml			
glycerin	5 ml			
phosphorescence solid	0.6 grams			
Proce	dures		Observations	
1. In a 1,000-ml beaker, add 1	10 grams of corn starch			
(using weigh paper and a bala	ance)			
2. Add ml of vinegar	(using a 10-ml graduated			
cylinder) to the same beaker				
3. Add 5 ml of glycerin (using	a 10-ml graduated cylinder)			
to the same beaker				

Name:		Date:	Class:	_
Phospho	rescence in bioplastic: Ch	anging the amo	unt of vinegar (4 of 4)	
SAMPLE NAME:	ml vinegar			
Reaction scheme:				
corn starch	10 grams			
water	60 ml			
vinegar	ml			
glycerin	5 ml			
phosphorescence solid	0.6 grams			
Proce	dures		Observations	
1. In a 1,000-ml beaker, add 1	LO grams of corn starch			

Procedures	Observations
1. In a 1,000-ml beaker, add 10 grams of corn starch	
(using weigh paper and a balance)	
2. Add ml of vinegar (using a 10-ml graduated	
cylinder) to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)	
to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder)	
to the same beaker. USE YOUR MEASURED WATER TO	
GET THE GLYCERIN RESIDUE FROM THE GRADUATED	
CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn	
starch is dissolved and the mixture is thoroughly	
combined	
6. Measure out 60 ml of the mixture (using a graduated	
cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the	
phosphorescence solid is completely dissolved	
throughout	
9. Using a hot plate preheated to 400 °C, heat the	
mixture in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR	
THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and	
stir the mixture until it becomes clear or becomes a	
viscous solid that is hard to stir	
BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to transfer the heated	
mixture into a small petri dish that is lined with aluminum	
foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	
overnight	

Name:	Date:	Class:

Phosphorescence in bioplastic: Changing the amount of glycerin (1 of 4)

SAMPLE NAME: _____ 5 ml glycerin

corn starch	10 grams
water	60 ml
vinegar	5 ml
glycerin	5 ml
phosphorescence solid	0.6 grams

Procedures	Observations
1. In a 1,000-ml beaker, add 10 grams of corn starch	
(using weigh paper and a balance)	
2. Add 5 ml of vinegar (using a 10-ml graduated cylinder)	
to the same beaker	
3. Add 5 ml of glycerin (using a 10-ml graduated cylinder)	
to the same beaker	
4. Add 60 ml of water (using a 100-ml graduated cylinder)	
to the same beaker. USE YOUR MEASURED WATER TO	
GET THE GLYCERIN RESIDUE FROM THE GRADUATED	
CYLINDER IN THE PREVIOUS STEP.	
5. Using a silicone spatula, stir the mixture until the corn	
starch is dissolved and the mixture is thoroughly	
combined	
6. Measure out 60 ml of the mixture (using a graduated	
cylinder) and dispense into a clean 250-ml beaker	
7. Add 0.6 grams of the phosphorescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)	
8. Using a clean silicone spatula, stir the mixture until the	
phosphorescence solid is completely dissolved	
throughout	
9. Using a hot plate preheated to 400 °C, heat the	
mixture in the 250-ml beaker	
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR	
THE MIXTURE WHILE HEATING	
11. For 6 minutes and 30 seconds, continue to heat and	
stir the mixture until it becomes clear or becomes a	
viscous solid that is hard to stir	
BE CONSISTANT WITH TIME FOR ALL YOUR SAMPLES 12. Use the silicone spatula to transfer the heated	
mixture into a small petri dish that is lined with aluminum	
foil and labeled with the sample name	
13. Let the phosphorescence bioplastic dry and harden	
overnight	
Overnight	

Phosphor	escence in bioplastic: Char	nging the amount of glycerin (2 of 4)
SAMPLE NAME:	ml glycerin	
Reaction scheme:		
corn starch	10 grams	
water	60 ml	
vinegar	5 ml	
glycerin	ml	
phosphorescence solid	0.6 grams	
Proced		Observations
1. In a 1,000-ml beaker, add 1	_	
(using weigh paper and a bala		
2. Add 5 ml of vinegar (using a	10-ml graduated cylinder)	
to the same beaker		
3. Add ml of glycerin (u cylinder) to the same beaker	ising a 10-ml graduated	
4. Add 60 ml of water (using a	100-ml graduated cylinder)	
to the same beaker. USE YOUI	R MEASURED WATER TO	
GET THE GLYCERIN RESIDUE FROM THE GRADUATED		
CYLINDER IN THE PREVIOUS STEP.		
5. Using a silicone spatula, stir the mixture until the corn		
starch is dissolved and the mix	xture is thoroughly	
combined		
6. Measure out 60 ml of the mixture (using a graduated		
cylinder) and dispense into a clean 250-ml beaker		
7. Add 0.6 grams of the phosp	horescence solid to the 60-	
ml mixture in the 250-ml beaker (from the previous STEP)		
8. Using a clean silicone spatu	la, stir the mixture until the	
phosphorescence solid is completely dissolved		
throughout		
9. Using a hot plate preheated to 400 °C, heat the		
mixture in the 250-ml beaker		
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR		
THE MIXTURE WHILE HEATING	<u> </u>	
11. For 6 minutes and 30 seco	nds, continue to heat and	
stir the mixture until it becomes clear or becomes a		
viscous solid that is hard to sti	ir	
BE CONSISTANT WITH TIME	FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to	transfer the heated	

______ Date: ______ Class: _____

mixture into a small petri dish that is lined with aluminum

13. Let the phosphorescence bioplastic dry and harden

foil and labeled with the sample name

overnight

Phosphores	scence in bioplastic: Char	nging the amount of glycerin (3 of 4)
SAMPLE NAME:	_ ml glycerin	
Reaction scheme:		
corn starch	10 grams	
water	60 ml	
vinegar	5 ml	
glycerin	ml	
phosphorescence solid	0.6 grams	
Procedur		Observations
1. In a 1,000-ml beaker, add 10 g	-	
(using weigh paper and a balance		
2. Add 5 ml of vinegar (using a 1 to the same beaker	o-mi graduated cylinder)	
to the same beaker		
3. Add ml of glycerin (using cylinder) to the same beaker		
4. Add 60 ml of water (using a 100-ml graduated cylinder) to the same beaker. USE YOUR MEASURED WATER TO GET THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER IN THE PREVIOUS STEP.		
5. Using a silicone spatula, stir the mixture until the corn starch is dissolved and the mixture is thoroughly combined		
6. Measure out 60 ml of the mix cylinder) and dispense into a cle		
7. Add 0.6 grams of the phospho		
ml mixture in the 250-ml beaker		
8. Using a clean silicone spatula, phosphorescence solid is complethroughout		
9. Using a hot plate preheated to 400 °C, heat the		
mixture in the 250-ml beaker		
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR THE MIXTURE WHILE HEATING		
	ds continue to heat and	
11. For 6 minutes and 30 seconds, continue to heat and stir the mixture until it becomes clear or becomes a		
viscous solid that is hard to stir		
BE CONSISTANT WITH TIME F	OR ALL YOUR SAMPLES	
12. Use the silicone spatula to tr		
mixture into a small petri dish the foil and labeled with the sample	nat is lined with aluminum	

Name: _____ Date: ____ Class: _____

13. Let the phosphorescence bioplastic dry and harden

over<u>night</u>

Phosphore	escence in bioplastic: Char	nging the amount of glycerin (4 of 4)
SAMPLE NAME:	ml glycerin	
Reaction scheme:		
corn starch	10 grams	
water	60 ml	
vinegar	5 ml	
glycerin	ml	
phosphorescence solid	0.6 grams	
Procedi	ıres	Observations
1. In a 1,000-ml beaker, add 10	grams of corn starch	
(using weigh paper and a balar	nce)	
2. Add 5 ml of vinegar (using a	10-ml graduated cylinder)	
to the same beaker		
3. Add ml of glycerin (us cylinder) to the same beaker 4. Add 60 ml of water (using a		
to the same beaker. USE YOUR		
GET THE GLYCERIN RESIDUE FROM THE GRADUATED CYLINDER IN THE PREVIOUS STEP.		
5. Using a silicone spatula, stir the mixture until the corn		
starch is dissolved and the mixture is thoroughly		
combined	ture is thoroughly	
6. Measure out 60 ml of the micylinder) and dispense into a cl		
7. Add 0.6 grams of the phosphorescence solid to the 60-ml mixture in the 250-ml beaker (from the previous STEP)		
8. Using a clean silicone spatula		
phosphorescence solid is completely dissolved		
throughout	,	
9. Using a hot plate preheated	to 400 °C, heat the	
mixture in the 250-ml beaker		
10 USING THE SILICONE SPATULA, CONTINUOUSLY STIR		
THE MIXTURE WHILE HEATING		
11. For 6 minutes and 30 seconds, continue to heat and		
stir the mixture until it becomes clear or becomes a		
viscous solid that is hard to stir		
BE CONSISTANT WITH TIME	FOR ALL YOUR SAMPLES	
12. Use the silicone spatula to	transfer the heated	
mixture into a small petri dish	that is lined with aluminum	
foil and labeled with the sampl	e name	

Name: ______ Date: _____ Class: _____

13. Let the phosphorescence bioplastic dry and harden

over<u>night</u>