

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is a Package Engineer?

Draw and label a picture of a package engineer at work.



Explain your drawing of a package engineer:

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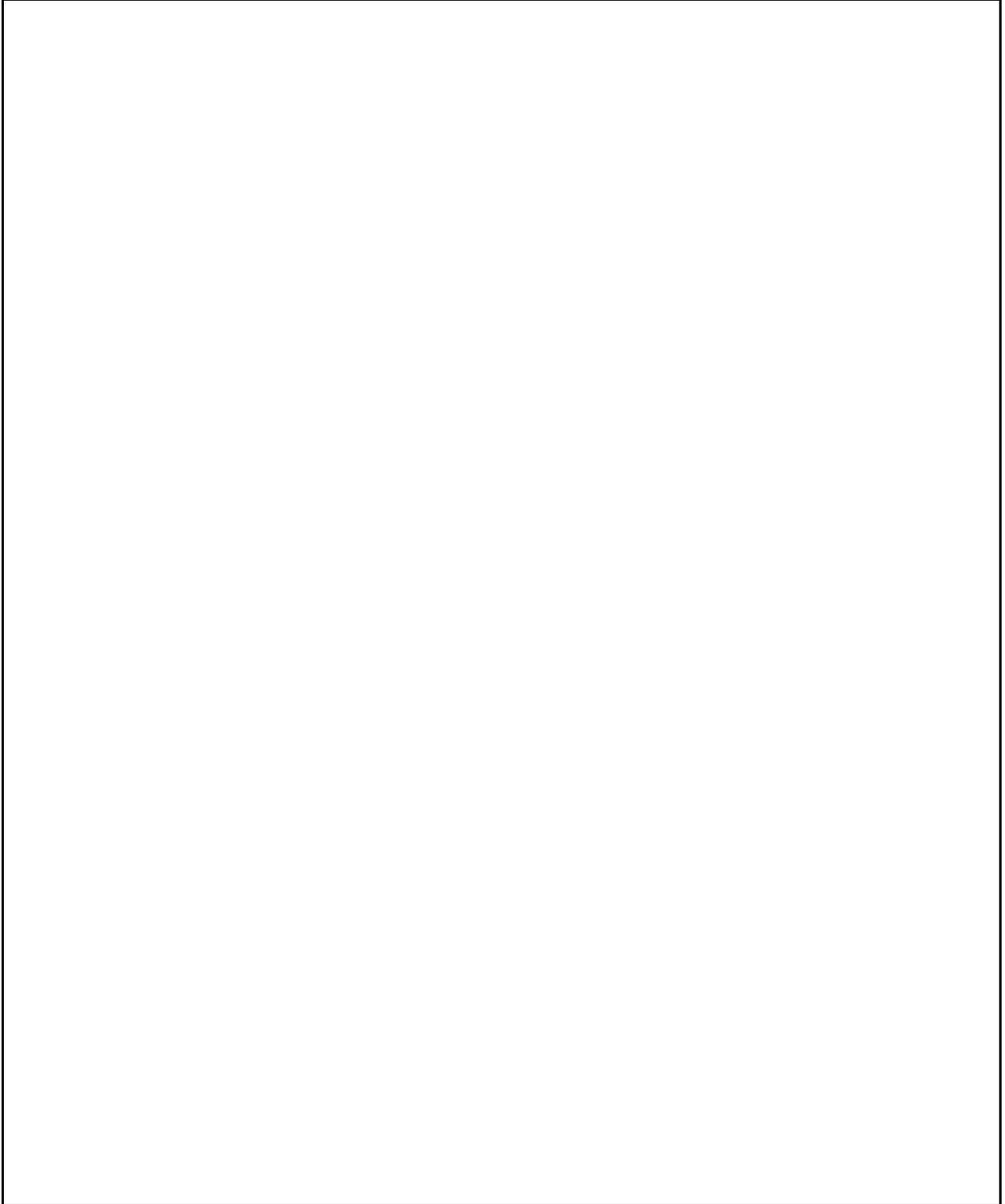
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

**B**

## What is a Package Engineer?

Draw a picture of a package engineer at work. Label your picture.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. What are 2 things a package engineer would need to know about in order to do his or her work?

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
\_\_\_\_\_

2. A company is designing a new kind of box. What are 2 things a package engineer would do to help?

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
\_\_\_\_\_

3. A computer company is designing a new kind of computer. What are 2 things a package engineer would do to help?

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
\_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

The picture shows a box of juice bottles. Use it to answer questions 1 and 2 below.

1. Which are packages? Check ALL that apply.

- the juice
- the bottles
- the box
- there is no package in the picture



2. Which one is the product? Choose ONE.

- the juice
- the bottles
- the box
- there is no product in the picture



3. Describe 3 things that a milk carton is designed to do:

(1) \_\_\_\_\_  
 \_\_\_\_\_

(2) \_\_\_\_\_  
 \_\_\_\_\_

(3) \_\_\_\_\_  
 \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A farmer is deciding what package to use to ship apples from his orchard to a baker for making pies. Describe 2 properties the shipping package should have. Explain your answers.

(1) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(2) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. The farmer lets people pick apples from his orchard to buy. He gives the people bags to put apples into as they pick them. Describe 2 properties the bags should have. Explain your answers.

(1) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(2) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A

B

*Directions: For the question below, circle the **BEST** answer.*

The picture shows a bottle of suntan lotion.

1. What feature is most helpful to contain the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size



2. What feature is most important to make it easy to carry the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

3. What feature is most helpful to communicate information about the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

4. What feature is most helpful to dispense the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. Explain how you could improve this water bottle and why you would improve it in that way.



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2. Someone is designing a package for soap. Describe 2 things she needs to think about.

(1) \_\_\_\_\_

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(2) \_\_\_\_\_

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A boy has 2 of the same kind of plant. One is by the window and one is not. Otherwise, he takes care of both plants in the same way. After a month, the plant by the window is much bigger. What might be the reason the plant by the window is bigger?

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2. A girl bought a new plant. She is not sure how much light or water the plant needs. What could she do to figure this out?

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A child places a plant in the corner of his bedroom. After a week it looks unhealthy. What might have happened to the plant?

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2. What could he do to try to make the plant healthier?

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3. How could he tell if his plant is getting healthier?

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

You have created a recipe for making your own goop and you want to send the ingredients to a friend who lives far away. You need to package the following ingredients:



Flour  
(a powder)



Salt  
(tiny crystals)



Food coloring  
(3 different liquids)

*Directions: Design a package that you can use to ship the ingredients to your friend.*

1. How will you contain the ingredients so they don't mix?

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2. How will you make it easy to dispense the ingredients?

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3. What else could you add to your package?

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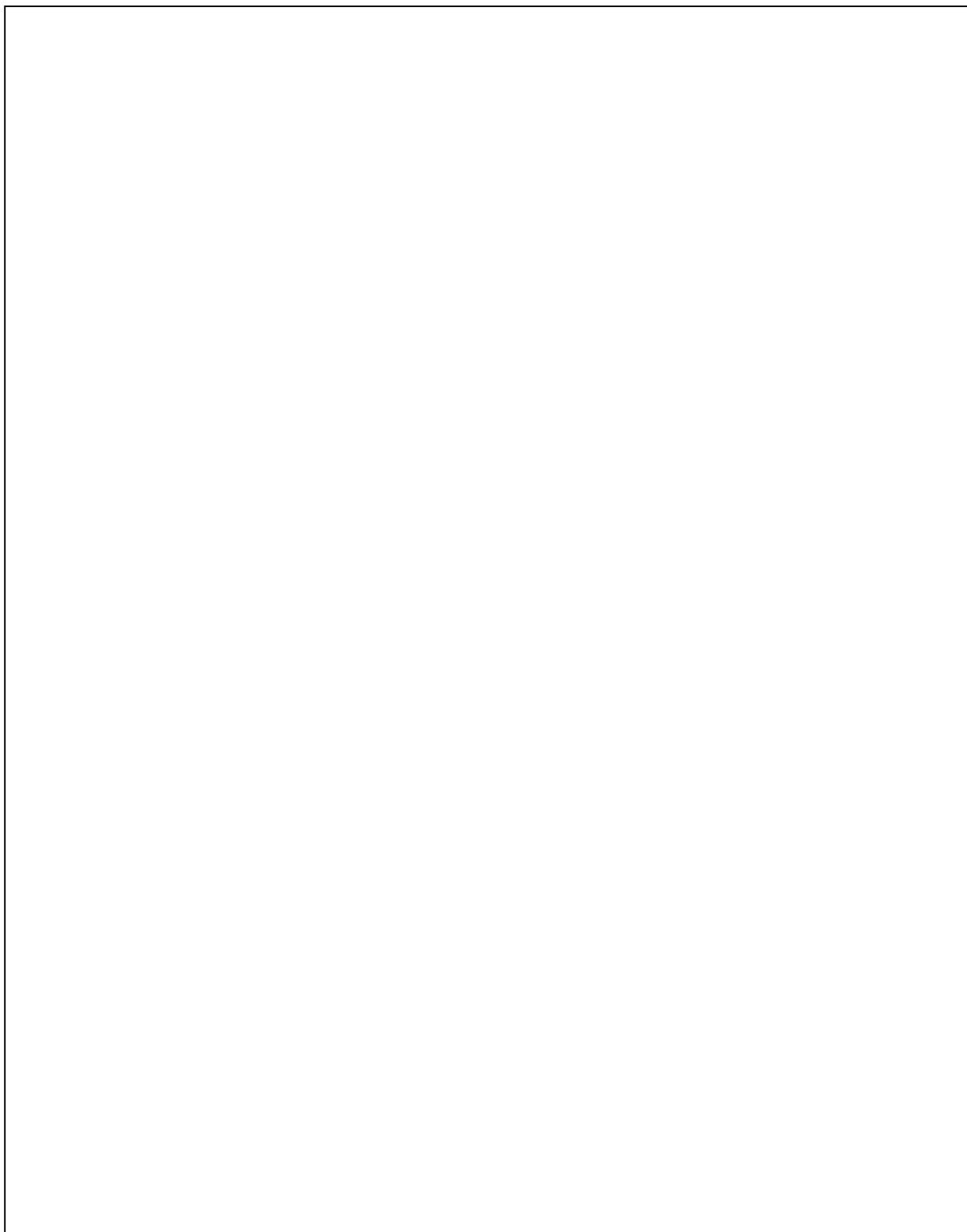
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4. Sketch your package on the back of this page.

Sketch your package design in the box below.

Label all the parts and indicate the function of each.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**B**

You have created a recipe for making your own goop. You want to send the ingredients to a friend who lives far away. You need to put these things in the package:



Flour  
(a powder)



Salt  
(tiny crystals)



Food coloring  
(3 different liquids)

Design a package that you can use to ship the ingredients to your friend. Sketch your package design in the box below. Label all the parts and show the function of each. You use the back of this page to sketch your ideas first.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is a Package Engineer?

Draw and label a picture of a package engineer at work.

*A good picture would show someone designing packages. They could be working to design different functions of the package such as containing, carrying, preserving, protecting, displaying, dispensing, and communicating information about what is inside.*

*Examples include: someone designing an egg carton to keep eggs safe, a water bottle to dispense water easier, a handle for a bag that will make it easier to carry, etc.*

What is a package engineer?

*Answers will vary, but may include: An engineer who designs packages for many different types of objects. Functions of the package often include containing, carrying, preserving, protecting, displaying, dispensing, and communicating information about what is inside.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is a Package Engineer?

Draw a picture of a package engineer at work. Label your picture.

*A good picture would show someone designing packages. They could be working to design different functions of the package such as containing, carrying, preserving, protecting, displaying, dispensing, and communicating information about what is inside.*

*Examples include: someone designing an egg carton to keep eggs safe, a water bottle to dispense water easier, a handle for a bag that will make it easier to carry, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. What are 2 things a package engineer would need to know about in order to do his or her work?

*Answers will vary, but may include: how packages can be designed to carry, preserve, protect, display, dispense, or communicate information about what is inside; properties of materials; properties of the product; consumers of the product; etc.*

2. A company is designing a new kind of box. What are 2 things a package engineer would do to help?

*Answers will vary, but may include: design the handles for the box so it is easier to carry, design a box that so that it protects what is inside, etc.*

3. A computer company is designing a new kind of computer. What are 2 things a package engineer would do to help?

*Answers will vary, but may include: figure out how to make the packaging for the computer interesting to buyers, figure out how to keep the computer from breaking when it is in the package, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

The picture shows a box of juice bottles. Use it to answer questions 1 and 2 below.

1. Which are packages? Check ALL that apply.

- the juice
- the bottles
- the box
- there is no package in the picture



2. Which one is the product? Choose ONE.

- the juice
- the bottles
- the box
- there is no product in the picture



3. Describe 3 things that a milk carton is designed to do:

*Answers will vary, but may include: contain the milk, dispense the milk, communicate information about the milk, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A farmer is deciding what package to use to ship apples from his orchard to a baker for making pies. Describe 2 properties the shipping package should have. Explain your answers.

*Answers will vary, but may include: the package is easy to lift and carry, the packaging material is sturdy enough, the packaging has compartments so the apples won't get bruised, etc.*

2. The farmer lets people pick apples from his orchard to buy. He gives the people bags to put apples into as they pick them. Describe 2 properties the bags should have. Explain your answers.

*Answers will vary, but may include: the bags are easy to lift and carry, the outside of the bags is eye-catching for buyers, the bag material is sturdy enough to hold the apples, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: For the question below, circle the **BEST** answer.

The picture shows a bottle of suntan lotion.

Use it to answer questions 1 to 4 below.

1. What feature is most helpful to contain the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size



2. What feature is most important to make it easy to carry the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

3. What feature is most helpful to communicate information about the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

4. What feature is most helpful to dispense the lotion?

- A. the label
- B. the pop-up lid
- C. the plastic bottle
- D. the shape and size

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. Explain how you could improve this water bottle and why you would improve it in that way.



*Answers will vary, but may include: make the bottle out of a thicker material so it is less likely to crack or break, make the body out of a stronger material, improve the lid so it doesn't leak, etc.*

2. Someone is designing a package for soap. Describe 2 things she needs to think about.

*Answers will vary, but may include: where the soap will be sold, where the soap will be stored, what the buyer needs to know about the soap, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A boy has 2 of the same kind of plant. One is by the window and one is not. Otherwise, he takes care of both plants in the same way. After a month, the plant by the window is much bigger. What might be the reason the plant by the window is bigger?

*The plant by the window got more sunlight.*

2. A girl bought a new plant. She is not sure how much light or water the plant needs. What could she do to figure this out?

*Answers will vary, but may include: give the plant a bit of sun and water and watch it for a few days to see if it stays healthy, set up an experiment to try different amounts of sun and water, try to figure out what kind of plant it is and learn more about it, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Write your answers in the space provided.*

1. A child places a plant in the corner of his bedroom. After a week it looks unhealthy. What might have happened to the plant?

*Answers will vary, but may include: the plant got too little sunlight, the plant needs more water, etc.*

2. What could he do to try to make the plant healthier?

*Answers will vary, but may include: move the plant near a window so that it gets more sun, give it more water, try to find out how much sun and water the plant needs, etc.*

3. How could he tell if his plant is getting healthier?

*Answers will vary, but may include: The plant will look less wilted, will grow bigger, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

You have created a recipe for making your own goop and you want to send the ingredients to a friend who lives far away. You need to package the following ingredients:



Flour  
(a powder)



Salt  
(tiny crystals)



Food coloring  
(3 different liquids)

*Directions: Design a package that you can use to ship the ingredients to your friend.*

1. How will you contain the ingredients so they don't mix?

*Answers will vary, but may include: put them in strong containers that aren't easy to break, put them in containers that are well sealed (e.g. with a screw cap) so they don't leak, etc.*

2. How will you make it easy to dispense the ingredients?

*Answers will vary, but may include: put the liquid in dropper bottles so you can dispense the food coloring one drop at a time, put the solids in containers with wide tops so you can easily fit something in to scoop it out, etc.*

3. What else could you add to your package?

*Answers will vary, but may include: add labels to each container so you know what's inside each one, put the food coloring in clear containers so you can see the color, etc.*

4. Sketch your package on the back of this page.

Sketch your package design in the box below.

Label all the parts and indicate the function of each.

*A good picture may show any of the following:*

*-For containing: strong containers that aren't easy to break, containers that are well sealed (e.g. with a screw cap) so they don't leak, etc.*

*-For dispensing: put the liquid in dropper bottles so you can dispense the food coloring one drop at a time, put the solids in containers with wide tops so you can easily fit something in to scoop it out, etc.*

*-Other ideas: add labels to each container so you know what's inside each one, put the food coloring in clear containers so you can see the color, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

You have created a recipe for making your own goop. You want to send the ingredients to a friend who lives far away. You need to put these things in the package:



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