

## Egg Helmet: Parent Instructions

Make sure you help your child with this one: it can get messy!

In this experiment, your child will use scientific inquiry (observe, hypothesize, experiment, conclude) to design a helmet for an egg.

### Materials:

bike helmet

1-3 eggs

(you can substitute water balloons for eggs)

chair

Choose from the following materials:

box (cardboard or plastic)

cotton balls

bubble wrap

tape

plastic bags

styrofoam or packing peanuts

paper towels

newspaper

cloth material

### Step 1: Observe

Have your child look at a bike helmet. Have him/her think about the following questions: What does it look like? How is it shaped? What is it made of? Is it heavy?

Have your child put it on. What does it feel like?

### Step 2: Hypothesize

Ask your child why you should always wear a helmet when riding a bike.

Then, tell your child to imagine that an egg is a person's head, and the yellow part inside is a brain. Ask your child what an "egg helmet" might look like. How would this helmet protect the egg?

### **Step 3: Experiment**

Design a helmet for an egg. Use any materials from those listed under "Materials" at the beginning of this experiment.

Test your helmet: Put the egg inside the helmet, stand on a chair and drop it.

Note: If you do not want your child to use an egg, you can substitute a water balloon instead.

### **Step 4: Conclude**

Did the helmet work? Or, did your egg break? What else might work? Try out new design ideas.

## Egg Helmet: Kid's Instructions

Make sure you ask an adult for permission and help with this activity: it can get messy!!

### Materials:

bike helmet  
eggs or water balloons  
chair

### Choose from the following materials:

box (cardboard or plastic)  
cotton balls  
bubble wrap  
tape  
plastic bags  
styrofoam or packing peanuts  
paper towels  
newspaper  
cloth material

### Step 1: Observe

Look at a bike helmet. What does it look like? How is it shaped? What is it made of? Is it heavy? Put it on your head. What does it feel like?

### Step 2: Hypothesize

Why should you wear a helmet whenever you ride a bike? Pretend an egg is a person's head and the yellow part inside the egg is the brain. What would an egg helmet look like?

### Step 3: Experiment

Design a helmet for an egg. Use any materials listed under

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"Materials."

Test your helmet: Put the egg inside, stand on a chair, and drop it.

#### **Step 4: Conclude**

Did the helmet work? Or did the egg break? What can you do differently? What else might work?

## Log Sheet: Egg Helmet

1. What I observed:

2. What I think an egg helmet should look like:

3. The materials I used:

A picture of my egg helmet:

4. My conclusion: