DESIGN A HELMET
HELMET PARTS

- Hard Shell
- Crushable Liner
- Layer of Padding
- Strap System
- Vents
Consumer Product Safety Commission

- Stickers
- Testing
  a. Helmet strength
  b. Strap strength
- Blue Snell sticker - much more stringent testing
DID YOU KNOW?

- What percent of bicycle accidents involve a motor vehicle?
- How much do helmets decrease the likelihood of severe brain injury?
- When a helmet is damaged in an accident, where is it most likely to show damage?
ANNUAL BICYCLE STATISTICS

- Deaths: 900
- Hospital Admissions: 23000
- Emergency Room Visits: 580000
- Physicians Office Visits: 1200000
RISK OF HEAD INJURY FACTORS??

- Positioning on head (center)
- Adjustable foam pads (custom fit)
- Comfort
- Adjustability of straps
- Whether helmet covers forehead
- Whether helmet could be removed while the strap was fastened
STEPS IN DETERMINING HELMET FIT

• Measurement
• Try-on
• Horizontal and vertical movement check
• Retention check
• Pressure point check
• Confirming proper fit
GROUP PROJECTS

- People with long hair (red)
- Bald people (blue)
- Children aged 5-7 (green)
- Teen-aged riders (orange)
- Bicycle commuter (yellow)
- Bicycle motocross racers BMX (purple)
DESIGNING & MARKETING A HELMET

• Identify the group your product will be designed for
• What are the specific needs of the people in the group?
• How should the basic helmet design be changed to meet the needs of the individuals in this group?
• How can you convince the people in this group to use or buy your bicycle helmet?
GROUP GOALS

• Design a poster that defines the:
  1. Problem Statement
  2. Needs
  3. Marketing
  4. Design Changes

• Illustrate - draw a picture of your helmet

• Oral Presentation - 2 minutes
EVALUATION KEY

• 3 - SUPERIOR

• 2 - GOOD

• 1 - NEEDS IMPROVEMENT