



## **EXHIBIT DESCRIPTION (2,500 sq. ft. version)**

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Enter the wonderfully puzzling world of *Mindbender Mansion*, an eclectic place full of brainteasers and interactive challenges guaranteed to test the brain power and problem solving skills of even the most experienced puzzlers. Visitors to this fun and quirky mansion are invited to join the Mindbender Society by gathering hidden clues and secret passwords scattered throughout the various thematic rooms of the house. The clues and passwords are revealed by solving select brainteasers and group challenges. Visitors are encouraged to think outside the box and collaborate with their fellow mansion guests to meet individual and group challenges, which include manipulating a tilt table, keeping up with T.V. trays on a conveyer belt, and disco hopscotch spelling.

Math, science, and technology educational content are woven into the puzzles, videos, and group challenges found inside *Mindbender Mansion*. At the heart of the exhibit is the essential scientific task of problem solving and critical thinking. The puzzles are an excellent tool for explaining mathematical and physical science concepts. In order to solve these puzzles, visitors must identify patterns, think ahead, use logical reasoning, and look at the problems from different perspectives, setting aside preconceived ideas. The videos in each of the four Clue Vaults explain neuroscience-based principles, and tell the story of several inventors who have used problem solving skills to come up with new solutions to old problems. Additionally, the popular group challenges require communication, collaboration, leadership, and teamwork skills – skills that are critical in solving the challenges facing today's businesses and communities.

### ***Mindbender Mansion* is:**

- So incredibly engaging and hands-on for everyone that it's **fun for families of all ages and generations**. Grandparents, parents and children of all ages learn from each other as they work together to solve the various brainteasers and group challenges.
- A **perfect exhibit for school groups** providing teachers with opportunities to engage their students in inventive, out-of-the classroom problem solving that requires mathematics, builds on prior knowledge, inspires teamwork and demands creativity. *Mindbender Mansion* is especially popular with middle and high school-aged groups.
- **Ideal for supplemental programming, promotions, and marketing activities** such as a Brainteaser Contest, Mensa Testing Day, and Game Days (Scrabble®, Crossword Puzzles, Sudoku, Rubik's Cube, and Spelling Bee competitions).
- Just the **right thing for breaking the ice at evening events and corporate parties** as adults enjoy being a kid again and getting to know each other by playing and collaborating in the team-building activities inherent in the exhibit.
- Helpful in **driving repeat attendance** and **increasing membership** as visitors get so caught up in solving the brainteasers and group challenges that they typically **spent an average of 2-3 hours** in the original 6,000 sq. ft. *Mindbender Mansion* and **frequently came back**.

Adults, families, children and school groups alike will enjoy exercising their minds as they try to master each of the 11 individual brainteasers and the three large-scale group activities in this fun and unconventional exhibit!

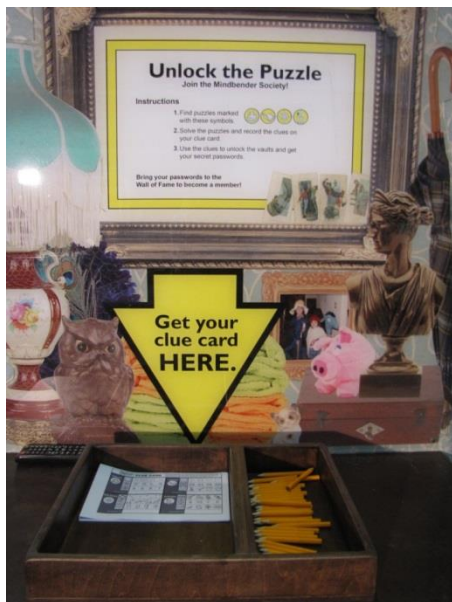
## THEMATIC AREAS AND EXHIBIT COMPONENTS



### **ENTRY**

Start at the Entry and watch a large media screen which introduces the wacky Mr. E., master brainteasers, puzzler extraordinaire, and current curator of the Mindbender Society. He will explain some key features of *Mindbender Mansion* and how to unlock the puzzle to become a member of the Mindbender Society. There are 11 individual brainteasers and three large-scale group activities.

To become a member, visitors must solve a minimum of nine select brainteasers and one large-scale group activity.



Clue cards are available at the Entry to help keep track of clues and passwords from the puzzles that lead to membership in the Mindbender Society.



## **PARLOR**

In the Parlor, there are three individual Brainteasers, all of which provide clues toward the final challenge that determines eligibility into the Mindbender Society:



### **(3) Brainteasers:**



#### **Make a Yellow Square**

Arrange puzzle pieces to make a yellow square.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Parlor Vault*.

#### **Tricky Triangles**

Start with 16 sticks arranged to form eight triangles. Remove four sticks to leave only four equal-sized triangles.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Parlor Vault*.





### Every Line Adds to 18

Insert the numbers 1-11 so that the sum of the three numbers in any straight line is 18.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Parlor Vault*.

### Parlor Vault

Set the dials of the *Parlor Vault* to the three clues that were revealed after successfully solving the three Parlor Brainteasers. If successful, a video plays of Mr. E., who discusses how teamwork helps in problem solving. Visitors are then entertained by a short, zany animation introducing real-life inventor, Mary Anderson, who invented the windshield wiper blade in 1903. At the end of the animation, Mr. E. reveals a password that is needed to unlock the *Wall of Fame Vault* that determines eligibility into the Mindbender Society.



### LIBRARY

In the Library, there are three individual Brainteasers, all of which provide clues toward the final challenge that determines eligibility into the Mindbender Society.



### (3) Brainteasers:



#### Make a T

Arrange four puzzle pieces to make a capital T.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Library Vault*.

#### Color Match

Arrange six hexagons around a central hexagon so that all adjacent colors match.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Library Vault*.



#### Every Line Adds to 15

Insert numbers 1-9 so that the sum of the three numbers in any straight line (vertical, horizontal and diagonal) is 15.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Library Vault*.



#### Library Vault

Set the dials of the *Library Vault* to the three clues that were revealed after successfully solving the three Library Brainteasers. If successful, a video plays of Mr. E., who discusses how problem solving involves approaching things from a new or different angle. Visitors are then entertained by a fun and lively animation introducing real-life inventor, Marion Donovan, who invented the leak-proof diaper cover, the "boater," in 1946. At the end of the animation, Mr. E. reveals a password that is needed to unlock the *Wall of Fame Vault* that determines eligibility into the Mindbender Society.





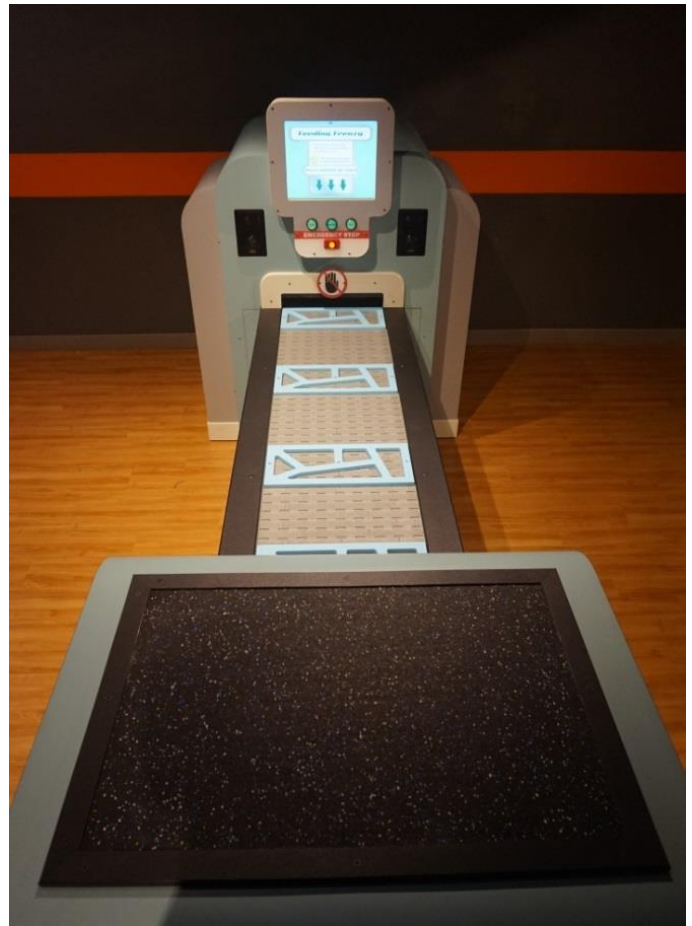
## **KITCHEN**

In the Kitchen, there is one large-scale group activity (*Feeding Frenzy*) and two individual Brainteasers. Visitors must be successful at the *Feeding Frenzy* activity and the two Kitchen Brainteasers to receive clues toward the final challenge that determines eligibility into the Mindbender Society.

### **Feeding Frenzy**

In this large-scale activity, teamwork is necessary to successfully meet the challenge: to fill a minimum of 10 T.V. dinner trays (with five kinds of food) on a moving conveyer belt within the specified amount of time. Visitors can select a level of play (slow, medium, or fast) which determines the speed of the conveyer belt. Points are given for each TV dinner tray successfully filled but no points are given for trays partially filled.

Clue reveal: If a team scores enough points and the minimum number of trays has been filled, a clue is revealed onscreen—write down this clue on the clue card to be used to unlock the *Kitchen Vault*.





## (2) Brainteasers:



### Disorder

Arrange the numbers 1-8 on the board so that no two consecutive numbers touch.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Kitchen Vault*.



### Kitchen Vault

Set the dials of the *Kitchen Vault* to the three clues that were revealed after successfully solving the *Feeding Frenzy* activity and two Kitchen Brainteasers. If successful, a video plays of Mr. E., who talks about healthy foods rich in nutrients for the brain. Visitors are then entertained by a brief, kooky animation introducing real-life inventor, Elisha Otis, who invented the elevator safety brake in 1854. At the end of the animation, Mr. E. reveals a password that is needed to unlock the *Wall of Fame Vault* that determines eligibility into the Mindbender Society.

## **MAP ROOM**

In the Map Room, there is one large-scale group activity (*Amazing Maze*) and three individual Brainteasers. All three brainteasers provide clues toward the final challenge that determines eligibility into the Mindbender Society.



## **Amazing Maze**

In this large-scale activity, up to four visitors work together to tilt a table in different directions, guiding a ball into six holes as quickly as possible in the allotted time. A scoreboard keeps tally and counts down the remaining time left in the game.





### (3) Brainteasers:

#### **Six Blocks in a Box**

Fit six blocks together so they fit perfectly into a box and the lid can be closed.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Map Room Vault*.



#### **10 Pegs in Each Line**

Place pegs in each of eight boxes so there are 10 pegs in each line.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Map Room Vault*.

#### **One Shape Fits All**

From a group of differently-shaped blocks, find the one block that completely fills all three differently shaped holes as it passes through.

Clue reveal: When the puzzle is solved a clue is revealed—write down this clue on the clue card to be used to unlock the *Map Room Vault*.





### **Map Room Vault**

Set the dials of the *Map Room Vault* to the three clues that were revealed after successfully solving the three Map Room Brainteasers. If successful, a video plays of Mr. E., who discusses how neuroscientists can see what part of the brain is active when doing or thinking certain things. Visitors are then entertained by a quick, playful animation introducing real-life inventor, Elijah McCoy, who invented the steam engine lubricator in 1872. At the end of the animation, Mr. E. reveals a password that is needed to unlock the *Wall of Fame Vault* that determines eligibility into the Mindbender Society.



## **DISCO ROOM**



### **Spelling Fever**

In this large-scale, full-body activity, teamwork is necessary to successfully meet the challenge: to correctly spell answers to trivia questions within a limited amount of time by hopping on letter squares. Start the game by touching the small screen at one end of the dance floor. Instructions are given on a large screen above the floor and the game begins when a randomly generated question appears on the large screen. The challenge is to think of the answer to the question and spell it out by plotting a course down the floor and hopping on the correct letters.

## **WALL OF FAME**

Now it's time for visitors to see if they are eligible to become a member of the Mindbender Society and possibly add their portrait to the "Mindbender Society Wall of Fame." Several framed portraits of esteemed members of the Mindbender Society decorate this area and there is room for new members too!

To join, visitors must enter at least three passwords they have gathered from the four rooms of the mansion (Parlor, Library, Map Room, and Kitchen) into the final vault at the *Wall of Fame*. If they are successful, they are officially an expert problem-solver and invited into the Society!



If a visitor is invited to join the Mindbender Society, they can have their picture taken and personalize their portrait with a background, outfit, funky hat, funny hair etc. Once they've finished their portrait, they can print out their official Mindbender Society certificate with their personalized portrait and take it home. In addition, their portrait will go up on the Wall of Fame for all to see, in one of the two monitors available to highlight the newest members of the Mindbender Society!

*Mindbender Mansion is produced and toured by the Oregon Museum of Science and Industry, Portland, Oregon. © 2015.*