

Green Exhibit Checklist

The Green Exhibit Checklist (GEC) is a tool to evaluate the environmental sustainability of exhibits. The goal of the Checklist is to inspire exhibit teams to reduce the environmental impacts of exhibit production.

The Green Exhibit Checklist can be a useful tool in early planning to help set project goals. Then, once the exhibit is on the floor, the Checklist is used to assess the final outcome.

The GEC awards points in 5 KEY STRATEGIES:

- Reduce new material consumption
- Use local resources
- Reduce waste
- Reduce energy consumption
- Reduce products with toxic emissions

A sixth category awards points for Innovation in the design and construction of the exhibit. This encourages exhibit teams to strive for new and creative solutions to reduce environmental impacts.

Step 1

Team sets goal for the exhibit: Platinum, Gold, Silver, and Bronze.

Step 2

Designer and fabricator review checklist to find the best strategies for meeting goal.

Step 3

After production, the fabricator fills out the GEC with the relevant material information.

Step 4

Exhibit team conducts walk-through, using the material information to award points.

We encourage teams to post their Checklist results online for the benefit of the entire museum industry. For more information or to post your Checklist evaluation see www.exhibitseed.org.

Exhibition Title: Arctic Ice Melt (a Portal to Current Research exhibition)

Date: 3.14.13

Producing Facility: Pacific Science Center

Host Site: Pacific Science Center

Your Name: Felicia Maffia

Role/Title: Exhibit Development Manager

Ratings are awarded for the total score:

PLATINUM (20–24 points)

SILVER (11–14)

GOLD (15–19)

BRONZE (8–10)

Reduce new material consumption.

INTENT: Reduce demand for virgin materials thereby reducing industrial practices that pollute the environment and exploit natural resources.

STRATEGIES:

- Use recycled materials (regrind HDPE, aluminum, etc.).
- Reuse building materials (from previous exhibits or deconstruction of houses, etc.).
- Use wood from responsibly-managed forests.
- Use rapidly renewable materials (bamboo, wheat board, etc.).
- Construct exhibits using fewer materials.the environment and exploit natural resources.

List all materials that were recycled, reused, FSC-certified wood, or rapidly renewable:	Estimated % of total exhibit (by volume):
Bamboo boxes (created for previous exhibit), paint (purchased for previous exhibit)	
Electronics (purchased for previous exhibit), Interactives (created for previous exhibit)	
Lighting (purchased for previous exhibit), graphics (created for previous exhibit)	
	Total %: 90
List any virgin materials (no recycled content, newly purchased, not renewable):	Estimated % of total exhibit (by volume):
Plex, cord cover, wax, hardware, cables, paint and paint supplies (trays, roller covers)	
tape, sandpaper, canned compressed air.	
	Total %: 10

SCORING:

- 4 points if **AT LEAST 90%** of the materials meet any one of these criteria.
- 3 points for **AT LEAST 75%**
- 2 points for **AT LEAST 50%**
- 1 point for **AT LEAST 10%**
- 0 points if **LESS THAN 10%** of the materials meet these criteria.

SCORE:

4

WAYS TO IMPROVE SCORE: Use certified wood

Use regional resources.

INTENT: Reduce negative effects on environment from the transportation of goods while contributing positively to the local economy.

STRATEGIES:

- Specify local raw materials, within 500 miles (ex: lumber in Pac NW).
- Source products manufactured locally, within 500 miles.
- Hire local contractors for labor, within 250 miles (ex: local welder).
- Batch orders of goods to reduce packaging material.

List all materials that were sourced locally:	Source:	Estimated % of total exhibit (by volume):
Used local contractor for all out-of-house fabrication		
Most other materials were re-used from previous exhibits		
		Total %: 82
List all materials that were not sourced locally:	Source:	Applied to est. % of total:
Buoy for display came from California		
Misc. cable, hardware, plex, vinyl		
		Total %: 18%

SCORING:

- 4 points if **AT LEAST 90%** of the materials were sourced locally.
- 3 points for **AT LEAST 75%**
- 2 points for **AT LEAST 50%**
- 1 point for **AT LEAST 10%**
- 0 points if **LESS THAN 10%** of the materials meet these criteria.

SCORE:

3

WAYS TO IMPROVE SCORE: re-use buoy and cables next year

Reduce waste.

INTENT: Reduce amount of waste and consider end-life of exhibit.

STRATEGIES:

- Design components to be re-purposed after exhibit retires (ex: standard table top)
- Choose materials that can be recycled at end of exhibit (glass, cardboard are best).
- Choose construction methods that allow components to be taken apart (no glue).
- Eliminate need for consumables that end up in trash.
- Design for durability and low-maintenance.
- Use water responsibly in exhibit.

List all materials that can be re-purposed or recycled:	Reuse or recycling plan:	Estimated % of total exhibit (by volume):
Bamboo boxes, plex vitrines were designed to be taken apart,		
electronics, lighting		
		Total %: 96%
List any materials that cannot be recycled or repurposed:	Destination:	Applied to est. % of total:
Sintra Albedo interactive pieces		
Graphics		
Hardware		
Paint		
		Total %: 4

SCORING:

- 4 points if **AT LEAST 90%** of the materials can be repurposed or recycled.
- 3 points for **AT LEAST 75%**
- 2 points for **AT LEAST 50%**
- 1 point for **AT LEAST 10%**
- 0 points if **LESS THAN 10%** of the materials meet these criteria.
- 1 Deduct point for wasteful use of consumables or water.

SCORE:

4

WAYS TO IMPROVE SCORE:

Reduce energy consumption.

INTENT: Reduce energy consumption by exhibit components.

STRATEGIES:

- Choose energy-efficient electronics and parts.
- Reduce number of energy-consuming interfaces.
- Use alternative energy sources (human-powered, solar, wind).
- Use auto-shut off on electronic components.

List all electronic components:	Auto shut-off? Yes or No:	Energy efficient model? Yes or No:
Surface table & projector	yes	yes
2 PCs, Ice Flow interactive	no	yes
Albedometer	no	no
MR16, LED satellite, display case	no	yes

SCORING:

- 4 points if the exhibit is **NET-ZERO energy consumption.**
- 3 points if **SIGNIFICANT** energy-conserving efforts are in place
- 2 points if **SOME** energy-conserving efforts are in place
- 1 point if exhibit **USES** energy-efficient electronics
- 0 points if **NO ATTEMPT to conserve energy**
- 1 Deduct one point if more than 75% of the exhibit components are electronic

SCORE:

WAYS TO IMPROVE SCORE: Replace MR16 with equivalent LED. Could try putting the pump for the Ice Flow interactive on a timer.

Reduce toxic emissions.

INTENT: Reduce quantity of materials that emit VOC's, either in processing or after installation, because of their threat to the environment and indoor air quality.

STRATEGIES:

- Choose zero/low VOC paints & finishes.
- Avoid PVC, styrene.
- Use soy inks on graphic panels.
- Use products that are formaldehyde-free.
- Avoid carpet with toxic materials.

List all materials, sealants, adhesives, paints, and finishes that are zero or low-VOC:	Applied to estimated % of total exhibit:
Low VOC paint	
	Total %:
List any materials that do emit volatile organic compounds:	Applied to est. % of total:
Spray paint	1
MDF (top cover of Buoy display box)	2
Sintra	1
	Total %:

SCORING:

- 4 points if **ALL** materials are low-VOC.
- 3 points for **AT LEAST 75%**
- 2 points for **AT LEAST 50%**
- 1 point for **AT LEAST 10%**
- 0 points if **LESS THAN 10%** of the materials meet these criteria.

SCORE:

3

WAYS TO IMPROVE SCORE: Next time use low VOC spray paint

Innovation.

INTENT: To encourage exhibit teams to strive for new and creative solutions.

STRATEGIES:

- Post checklist assessment on ExhibitSEED website for peer review.
- Incorporate a new design or production strategy that reduces environmental impact.
- Plan ahead for the exhibit's end-life.

SCORING:

SCORE:





<input checked="" type="checkbox"/> 1 Bonus point for posting assessment on ExhibitSEED website	<input type="text" value="1"/>
<input checked="" type="checkbox"/> 1 Bonus point for creating big visual impact with minimal materials: _____	<input type="text" value="1"/>
<input checked="" type="checkbox"/> 1 Bonus point for innovative end-of-life plan for once the exhibit is retired: Pretty much everything in the Portal exhibits are reusable _____	<input type="text" value="1"/>
<input checked="" type="checkbox"/> 1 Bonus point for any new design approach or construction method that increases environmental sustainability: Portal to Current Research exhibits are designed to be flexible to support quick changes of the content. _____	<input type="text" value="1"/>

WAYS TO IMPROVE SCORE: _____

POINTS AWARDED:

- Reduce new material consumption
- Use local resources
- Reduce waste
- Reduce energy consumption
- Reduce toxic emissions
- Innovation
- TOTAL points

CERTIFICATION:

-  **PLATINUM** (20+ points)
-  **GOLD** (15-19 points)
-  **SILVER** (11-14 points)
-  **BRONZE** (8-10 points)