Keep Iowa Beautiful

FACILITATOR GUIDE: Green? What's it Mean?

GRADE: **9th – 12th**

CONCEPTS & SKILLS:

- Environmental factors and finite resources influence ecosystem interactions
- Living organisms have the capacity to produce populations of infinite size, but environments and resources are finite. The distribution and abundance of organisms and populations in ecosystems are limited by the availability of matter and energy and the ability of the ecosystem to recycle materials.

MATERIALS & RESOURCES:

- Good rather than less bad: http://www.woolpert.com/the-good-the-less-bad-and-the-overused
-

PRESENTATION:

We hear a lot about "sustainability" and "going green" lately. What does that really mean? How can we critically asses the benefits or harm of a "green" idea or solution? When it comes to solving problems humans often make mistakes, sometimes really big mistakes. The planning stage is the time to consider unintended, as well as intended, outcomes of a project.
Before planning (or "designing") a service project, students can take this opportunity to begin developing the philosophy that underpins their action. Students can learn what makes a green idea truly *sustainable* or even better, *re-generative.*

DIRECTIONS:

1. Read article by William McDonaugh
2. Research the meaning of sustainability and regenerative. Possible resources: http://en.wikipedia.org/wiki/Sustainability & http://en.wikipedia.org/wiki/Regenerative_design
3.

TIME: # minutes

PROCESSING THROUGH THE SIX PILLARS:

What?

-

So What?

-

Now What?

-

Tips for Making Decisions about Sustainable or Green Solutions

- What resources are being used? And how does it get extracted?
- From where do the resources originate? What is left at the site once resource is extracted?
- Where will the waste end up?
- Who is effected by the harvest and/or waste of the resource? What is the workforce involved and are they treated fairly? Often the impoverished areas of the world are exploited in terms of extraction and pollution.

- Think long-term
- Doing an imperfect something is usually better than doing nothing, but not always.
- It's good to be with the trees, but make sure you get a view of the forest- What's the net benefit? If you sell plastic bottles of water as a fundraiser to improve the local lake or river, consider the resources used to make and fill the bottles and where the plastic bottles will end up. Is the net benefit worth it?

WHEN GREEN SOLUTIONS ARE PART OF THE PROBLEM
http://www.call4.org/blog/when-green-solutions-are-part-of-the-problem/
SEPTEMBER 12TH, 2010 IN BLOG BY ADMIN0 COMMENTS AND 0 REACTIONS

The last few years have seen a massive increase in the number of "green" products, ideas, processes, businesses and policies. But are these green solutions really good for the local and global environment? More importantly are they actually making things worse?

Let's consider a couple of examples.

1) A few years ago environmentalists believed that fuel obtained from crops such as palm, soy and corn was carbon neutral and that such biofuel could act as a silver bullet solution to the world's energy crisis. At the time, few people thought to consider the knock on effect mass production would have in terms of deforestation, human rights abuses and the increases seen in global food prices.

2) The Independent reported last year that monoculture plantations (such as

palm oil) had been awarded the same status as natural forest under REDD legislation (Reducing Emissions from Deforestation and Degradation). This would have meant that rather than protecting forests, REDD (by providing further financial incentives), would have encouraged developing countries to do exactly the opposite, to cut down forested land to replace them with palm oil plantations (or equivalent). Call4 aims to comment further on REDD legislation over the next few weeks.

3) Carbon trading illustrates how attempting to solve global environmental problems by via market based solutions can often do little to solve the problem. Cheat Neutral clearly shows how carbon trading shifts the focus away from the real problem, legitimizing emissions and pollution.

4) And, of course, we now see a proliferation of "green" products hitting our shelves. On the one hand, some manufacturers argue that development of new clean technologies takes substantial investment and that a market based approach provides this investment. Improvements in vehicle fuel consumption figures are, for example, worthy of consumer support. And in recent years we have seen the rise of Bono's "RED" label. RED products give a percentage of profits back to "worthwhile" causes – don't we as consumers have a moral duty to support organizations who adopt this kind of approach?

But there are at least two key problems with both these examples.

First, there is the problem of run-away consumption. There are (often hidden) costs associated with swapping an old underperforming item for a newer cutting edge item (one that has marginally improved green credentials). Purchasing a new, environmentally friendly car is still purchasing a new car. This purchasing activity necessarily requires consumption of resources and, of course, manufacturing processes exact (hidden) environmental and social costs that are often born in different countries to those in which the product is ultimately sold.

Second there is the problem surrounding green wash (see also the Call4 blog "All that glitters is not green"). Because we have (as a society) established that green items are more desirable than non green ones, and because we have placed a monetary value on this difference, there is a strong motivation for retailers to make exaggerated claims about green credentials in order to drive competitive commercial advantage. In many cases because the incentive for the

development of new "Green Products" is profit centered rather than ideologically driven the validity of the solutions/ items presented becomes questionable – especially when the bigger picture is considered.

How are consumers expected to make proper decisions when they are bombarded with conflicting messages about green credentials and when these credentials have been exaggerated by marketing teams who have simply made best use of fashionable trends? We are very unlikely to get the full picture from such marketing teams – they are very unlikely to provide complete visibility by also equally accentuating any negative points.

It's true. Not all "green solutions" are equally good for all aspects of the environment. "Green" appears, in many cases, to no longer be green.

Or at least over recent years we have seen the development of a myriad of green tones and shades that change according to the analyst's political position, according to the factors considered or the breadth of analysis.

The word "green" is now a catch all that is used increasingly but in fact means less and less every day. So, what should we do? Should we give up on trying to be "green" (whatever that really means) because a) it is impossible to obtain a full and comprehensive understanding of the relevant issues every time we make a decision that impacts someone else and because b) these issues are often conflicting anyway? We just don't have time, resources or ability to conduct a full assessment of every product we buy every policy we endorse and every business we support.

And yet, whilst being "green" remains a fashion statement, whilst we don't spend the time properly questioning green credentials, marketing teams across the world will continue to enhance certain credentials to cover up others.

What's required, of course, is a radical shift in society's attitudes from one of self centered consumerism to one that considers the wider impacts of our every day behavior. Being green needs to become more than this fashion statement, it needs to be more than a nod in the right direction to assuage guilt and to enable business as usual. What we need is full and proper consideration of the environment at all levels of society as part of a wider move towards responsible living.

Rather than accepting green wash and green rhetoric at face value we need to be pushing back, to challenge those who use the word in its loosest term.

Yes, we all know that Rome wasn't built in a day. But we can start by simply recognizing that not all green solutions are equal and that some are positively bad for other people's environments. Whilst it is not always easy we must refuse to let corporate marketing teams have an easy ride of it and not simply believe what the label says – we must go out and find out for ourselves. Because the more that people start to question the "green" credentials of corporations and governments, the more we demand rigor across our "green" practices and the more we demand greater depth and transparency to our "green" labeling and assessment processes the more likely we, as a society, are to achieve complete solutions that properly consider the wider environment and that are truly green.

From Green Design to Good Design: The Science of Product Quality

Today, being "less bad" continues to be the strategy of choice for many environmentalists and green designers. As we have seen with energy efficient buildings, such an approach, as much as it is based on good intentions, can create a whole range of deleterious effects. And because "less bad" strategies tend to define the world by what we cannot do, they can stifle inspiration and creativity.

This is not to gainsay efficiency. The efficient use of energy and materials can be a valuable part of a broad strategy of change and it can help slow down and turn around the current industrial system. But as long as the system itself is flawed, attempting only to mitigate its negative effects is a fatally limited goal- and a dispiriting one as well.

How about an entirely different model? Why not shift the focus of green design from managing the environmental impact of a destructive system to creating buildings and materials that generate wholly positive effects for people and nature. This changes the entire context in which design decisions are made. Rather than asking, "How do I meet today's environmental standards?" designers would begin to ask, "How do my design decisions make sense in the overarching context of the natural world?" Ironically, this focus on the earth takes the green out of green design, for following the laws of nature is simply the path to good, high-quality design.

Here's why. In the natural world, the processes of each organism in a living system contribute to the health of the whole. One organism's waste is food for another and nutrients and energy flow perpetually in closed-loop cycles of growth, decay and rebirth. Understanding these regenerative qualities empowers us to recognize that all the materials we use as designers-even highly technical, synthetic materials-can also be seen as nutrients. Just as nitrogen, water, and simple sugars nourish new growth as they circulate in nature, so too can our materials regenerate natural and human systems. Textiles for draperies, wall coverings and upholstery fabrics can be designed as biological nutrients, which naturally biodegrade and restore the soil after use, while technical nutrients, such as nylon carpet fiber, can provide high-quality resources for generation after generation of safe, synthetic products.

These are far more than whimsical notions. The laws of nature are the bedrock of good design. And they inform a cohesive set of science-based design practices, which we call Cradle to Cradle Design TM, that is already redefining product quality for architects and interior designers worldwide.

For those to are ecologically minded, a key part of creating any new product is to produce a life cycle assessment (LCA), which is also known as a cradle-to-grave analysis, working from manufacture ('cradle') to use and disposal ('grave'). The LCA investigates all of the environmental impacts of that product and attempts to minimize that damage.

One of the key premises of McDonough and Brangart's *Cradle to Cradle* is that minimizing damage just isn't good enough. Instead, the authors propose that we change our entire design processes so that reuse and nourishment are built right into the process. Instead of minimizing waste, we create value.

Cradle to Cradle goes beyond the notion of having recycling as the final step in a process flow, and instead builds on the idea that waste need not exist at all. We can design our lives and products around the notion of nourishment – from the way we live to how we design and produce goods. The natural world provides the template for what the authors suggest, from the regenerative world of the insect, to the cherry tree, to the use of natural nutrients such as solar and wind power. They suggest that the key to working within, rather than against, nature is to respect biodiversity, respect the elegance and abundance of what is around us, and begin our design process with the notion of there is no such thing as waste:

Industries that respect diversity engage with local material and energy flows, and with local social, cultural, and economic forces, instead of viewing themselves as autonomous entities, unconnected to the culture or landscape around them. (122).

The writing style itself is clear, simple, and suitable for all ages and knowledge levels. Different readers will take different things from the book. It is addressed to those that do design for a living, and for those who are professionals in industry, this book will serve as a manual for development.

But all of us are engaged in creation and consumption in one way or another (the machine I'm using to type this on, or the reams of paper my kids draw on to take two general examples) and the choices we make on how we will conduct those activities, and seeing ourselves as all being part of the great cradle to cradle cycle is an important step forward.