## Task: Skyline Sustainability Initiative

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Your Assignment: Wasting resources in schools continues to be a significant problem. Countless reusable or recyclable items are thrown away and energy usage is high. A popular solution to this dilemma here at Skyline is to create actionable plans to promote sustainability. Your job is to design a way to educate students here at school or design a way for the school to reduce its carbon footprint. You will watch videos, read articles, and view diagrams to further construct your knowledge base before creating Action Plans.

## C:\Users\goodenoughk\Desktop\240px-Sustainable_development.svg.png

## Directions for Beginning: You will watch the following 3 videos and read the related articles and diagrams. Take notes on this sheet because you will want to refer to these notes during your discussion. Refer back to and of these sources whenever you need.

## Source Information:

## Video #1: <http://www.youtube.com/watch?v=j7sJWyOx4UI> (5 minutes)

## Video #2: <http://www.youtube.com/watch?v=IoCVrkcaH6Q> (3 minutes)

## Video #3: [https://www.youtube.com/watch?v=KQjTGCXwJTs (6 minutes)](https://www.youtube.com/watch?v=KQjTGCXwJTs%20(6%20minutes))

## Article #1: <https://www.sciencedaily.com/releases/2017/12/171213095513.htm>

## Article #2: <https://www.sciencedaily.com/releases/2017/12/171213124914.htm>

## Poster #1: <https://www.gsa.gov/cdnstatic/Poster_8pdf_Electrical_outlet_give_rest2.pdf>

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## Poster#2: <https://www.gsa.gov/cdnstatic/Poster_17pdf_Feeling_congested_telework2.pdf>

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| --- | --- | --- | --- |
| **Source** | **What have they done in terms of sustainability?** | **How this strategy works** | **Benefits / Drawbacks** |
| **Video #1** |  |  |  |
| **Video #2** |  |  |  |
| **Source** | What does this idea promote? | Do you like this idea? Why? | Benefits / Drawbacks |
| **Video #3** |  |  |  |

## Question: Which video do you think sent the strongest message? Why?

## Note Tool:

|  |  |  |  |
| --- | --- | --- | --- |
| **Source** | **How does this strategy work?** | **What do you think? Would you do this?** | **Benefits / Drawbacks** |
| **Article #1** |  |  |  |
| **Article #2** |  |  |  |
| **Source** | What is the message? | What do you think? | Benefits / Drawbacks |
| **Poster #1** |  |  |  |
| **Poster #2** |  |  |  |

## Common Principles of Sustainable Design

There are some common principles associated with sustainably designed products and processes. These include:

**Use of low-impact materials**: Chooses non-toxic, sustainable, or recycled materials, which require little energy to process. Takes into consideration how the materials (visible and invisible) originate in and return to the ecosphere (atmosphere, lithosphere, biosphere, and hydrosphere).

**Energy efficiency**: Implements manufacturing processes that use less energy and produces products which require less energy to manufacture and operate. Ideally, makes use of renewable energy sources.

**Quality and durability**: Understands that longer-lasting and better-functioning products will have to be replaced less frequently, thereby reducing the impacts of producing replacements and disposing of worn-out products

**Cradle-to-cradle life cycle design for reuse and recycling**: Designs products, processes, and systems for performance in the commercial “afterlife” of the product. This includes choosing materials with a cradle-to-cradle approach, so that the materials themselves create clean water, clean air, or can be composted to enrich the soil. This also includes design to facilitate the eventual separation of “technical nutrients” for the industrial process of manufacturing from “organic nutrients” that will biodegrade and enrich natural systems.

**Service substitution**: Promotes the sharing of products or services among groups of people. For example, encouraging people to change from private automobile ownership to joining a car-sharing service. Such a system promotes minimal resource use per unit of consumption

**Local renewable resources**: Chooses materials from nearby (local or bioregional), sustainably managed, renewable sources. Ideally, when their usefulness has been exhausted, biodegradable resources can be returned to nature as biological nutrients, or alternatively, returned to manufacturing as technical nutrients.

**Carbon footprint:** Reduces an individual’s carbon footprint by choosing products and services that have been sustainably designed, sustainably produced, and have the ability to be recycled or reused.

**Environmental health:** Aims to reduce or eliminate human health risks from environmental factors (such as pollution, heavy metals, etc.) that can be ingested, inhaled, or absorbed through the skin.

**Environmental justice:** Aims to provide all people with access to a healthy environment and equal access to decision-making processes. The development and enforcement of environmental laws, regulations, and policies should fairly involve all people and should protect groups of people from being disproportionately affected by environmental health hazards.

**Human needs and quality of life**: Considers how a design can promote human needs and quality of life in terms of subsistence, protection, understanding, participation, leisure, creation

**Design for change**: Considers what policy changes, behavioral changes, and technology changes will allow design and changes that exert the greatest leverage for overall sustainability.

## Research Questions Part 1:

## Create your definition of practical sustainability in 1-2 sentences and briefly (3-4 sentences) explain its benefits to your school and yourself. Use information from the videos, articles, and the posters to support your answer. Reference the sources you use.

## Defend the following statement: Sustainability is possible if we work together. Use information from the videos, articles, and the posters to support your answer.

## You have been asked to give a talk about how to introduce sustainability practices at a neighboring school (now that you are all experts!). You can use one video, one article, and one poster from today to help convey your message. Which do you choose and why? (4-5 sentences)