

THE PLASTIC IS FANTASTIC – OR NO?

Plastic is Packaging, Plastic is Product.

These days, almost everything we buy is wrapped in cellophane, in a plastic jar or container, made of plastic or carried out of the store in a plastic bag. Plastic seems to be everywhere. Cheap, light weight, easy to store, shape & customize – it's a seller's dream.

But what are the implications for the Planet?

Topics to cover with our group:

What is plastic made from?

Recycling:

What is the meaning of each **Recycle Number** shown in the little triangle at the bottom of the container? Do we need to act differently depending on the number there?

- What happens to the plastic containers we recycle? What is the recommended or standard practice for recycling?
- What percent of plastic can be recycled? How much of this actually is?
- What percent cannot be recycled?
- Where does non-recycled plastic end up?

How Long Does it Take for Plastic to Decompose (fall apart) in the environment? How much plastic is produced / discarded / recycled in the U.S. per year? How does it end up in our food?

Hands-on Experiment:

- ***Collect “empties” – plastic you discard or recycle each day. Make a List of them for at least a week.***
- ***What was the plastic item used for?***
- ***Could you clean this item for re-use? What is single-use plastic?***
- ***Compare your list with the team's, Share with the Group.***

SOLAR PANELS ON THE ROOF . . .

Solar panels are a relatively recent development in the quest to generate electricity without burning fossil fuels (coal, oil or gas.)

Topics to cover with our group:

What is a solar panel, and how does it convert solar energy to electricity?

- What are the advantages of Solar Energy, compared to more conventional ways of generating power to heat/cool a space?
- What happens after dark, or on a rainy day? Can this energy be stored?
- How much electricity is generated by solar panel on a sunny day?
- How many panels to power an entire house?
- Are there ecological issues concerning solar panels?
- How long will they last? Can they be recycled?
- How much does it cost to install a solar system on my roof?
- How can these panels be used to charge an electric car?

Hands-on Experiment:

- **Look at your electric bills to see how much electricity you use in a month (in kilowatt hours)**
- **Contact a Solar Company for details on # of panels required.**
- **Get information on the installation cost & on different plans available from the Solar company.**
- **How would a Solar system effect costs over a year?**
- **How would a Solar system reduce your carbon footprint?**
- **Provide a list of Solar companies for those interested.**

EV'S, EV'S HERE THEY COME

Some of the first cars designed and built were electric-powered, rather than using gas engines. These days, the world is once again designing, building and driving electric vehicles. Friendly to the Planet, they reduce carbon and methane emissions and run quiet.

Topics to cover with our group:

- What is an EV (Electric vehicle)? What is a PHEV (Plug-in Hybrid Electric Vehicle)? What advantages do they have over 100% gasoline engines?
- What role do gas-powered vehicles (cars, SUVs, Trucks, RVs) play in carbon and air pollution?
- Right now, EVs cost a little more than gas-powered cars. Why? Will more competition cause this to change?
- Why are EVs said to require less maintenance and be less costly to drive? Why are they more reliable?
- How many auto companies are now developing and selling EVs and PHEVs? What vehicles (picture) are currently available?

Real-world Effects (Facts you can share):

- **Take the annual mileage (distance you drive) & divide by the MPG of your car to find out how many gallons of gas your vehicle uses each year.**
- **Approximately how much does this fuel cost?**
- **How does driving effect air pollution? Noise pollution?**
- **Why is the U.S. phasing out gas-powered vehicles?**
- **What is the average cost of maintenance per year on a gas engine? How does this compare to newer EV cars.**
- **Knowing how far you travel each week, is there an electric version of your present car (make & model), or a comparable EV by another manufacturer?**
- **Visit a dealership for a test drive. You will share your driving experience in the EV compared to your present ride.**

EAT THE VEGGIES: HELP THE EARTH

Our food choices are typically determined by our cultural background, and then by the tastes we enjoy, and subsequently by our health concerns. More recently, we have come to understand how our diet has a clear impact on the sustainability of the planet.

Topics to cover with our group:

- What does it mean to eat foods “low on the food chain”, or to “eat simply”?
- How is eating simply make more food available to more people?
- Give examples of food types **low** on the food chain and others that are **high**.
- Compare a food in each category as to its water requirements, land used and labor required to produce it. Be sure to mention how an item is prepared and shipped, need for refrigeration, risk of spoilage.
- Emphasize: with a growing world population, we need to produce as much nutritious food as possible – very efficiently – to feed us all.
- Explain the difference foods at the extreme ends of the food chain. High = (animal protein) **compared to** Low = (vegetable protein) as to the

Hands-on Experiment:

- **At the grocery store, note of the price of beef or salmon per pound. Then find a 16- ounce bag of dry lentils or beans and its price.**
- **Find a Vegetarian cookbook at your library, or find recipes and resources online.**
- **Check out the Planetary Health Diet online.**
- **Assemble a meal plan and recipes for a week with your team, using the Planetary Health Diet as your model. Make this available to the Fraternity**
- **Discuss the advantages of eating this way habitually.**
- **Discuss the impacts of our diet on the Planet.**

BIRDS & BEES IN OUR GARDEN

Through the year, Franciscans meditate on the beauty of God's creation & its witness to His love and glory. The job of this team is to help us to make our gardens & patios a haven and help for the wonderful birds that brighten our lives in preparation for Spring.

Topics to cover with our group:

- Identify & Present (visually) several local bird species
- Find out all about them: habitat, diet, mating, nests etc.
- What challenges do they face from predators, people, etc?
- Why are they fascinating? – Color, Song, Travels??
- How can we help them: what plants, nest materials, seeds, etc. can we provide – whether directly or by placing in their environment?

Hands-on Experiment:

- **Take-Away: How we can help some of the local birds in our garden to thrive?**
- **Team members pick one or two bird types familiar to the local area. (ie., wren, hummingbird, finch, etc.)**
- **What special (unique) requirements do some of these birds have?**
- **What needs do they all have?**
- **Make a list of things we can make or buy for our garden to help them**
- **Get a rough idea of their cost**

*NOTE: See also “Orange County Backyard Birding 2020” – from OC Audubon Society. Many of these birds are familiar to us here in north County, San Diego.