INVENTERPRISE 2005

ILLUSTRATED BY J. LACHAPELLE

IDEAS... THE FINAL FRONTIER.
THESE ARE THE VOYAGES OF THE STARSHIP INVENTERPRISE.
OUR CONTINUING MISSION:
TO EXPLORE STRANGE NEW PLACES,
TO SEEK OUT NEW IMPROVEMENTS AND NEW USES,
TO BOLDLY GO WHERE NO ONE HAS GONE BEFORE.

STARDATE 2005: DUE TO A LUCRATIVE CONTRACT OFFER, THE CREW OF THE INVENTERPRISE HAS AGREED TO JOIN THE RECENTLY RETIRED CAST OF A GALAXY FAR, FAR AWAY, ON TONIGHT'S EPISODE OF...

MONSTER GARAGE
RECYCLING GRUDGE MATCH SMACK DOWN!!

Home Team

the Challengers

WELCOME! I AM YOUR HOST, T4-39Q. NOW LET'S JOIN OUR LOVELY CONTESTANTS, ALREADY UNDERWAY.

HOME TEAM, HOW IS IT GOING?

WELL, RIGHT NOW WE'RE WORKING ON SOME NEW USES FOR ALL THESE DEAD TRIBBLES WE'VE GOT LYING AROUND. SO FAR ALL WE'VE COME UP WITH IS TOILET PAPER COZIES.

PERFECT.

WE'VE ALSO RETOOLED AND REPROGRAMMED THESE BATTLE DROIDS INTO FACTORY MACHINES

OH BOY! NOW INSTEAD OF BLASTING REBELS, I SPECIALIZE IN CASTING METALS! INSTEAD OF PALACE INTRUSION, IT'S CAR PART EXTRUSION!! WHEEE!!

BOY, THAT STUNK!

CHALLENGERS, WHAT HAVE YOU COME UP WITH?

AS YOU CAN SEE FROM THIS CHART, WE'RE NOW HARVESTING 32% OF OUR BATTLECRUISER EXHAUST TO COOK HASHBROWNS. THIS HAS ALLOWED THE EMPIRE TO MOVE INTO SEVERAL UNTAPPED FAST FOOD MARKETS IN THE GALAXY.

DEATH & MAYHEM

HASHBROWNS

RAWWRRAW!!

WHAT CHEWY MEANS TO SAY IS THAT TAPING A BACK SCRATCHER TO AN OLD LIGHT SABER MAKES A GREAT WOOKIE GROOMER.

NOW I DON'T HAVE TO GET THE PLACES HE CAN'T REACH.

DISGUSTING! STUDENTS OF CENTRAL OREGON - SURELY YOU CAN DO BETTER!

I MADE A TAPE BALL!

WHEN DO WE VOTE SOMEONE OFF THIS ISLAND?

YOU MUST BE MY FATHER - I DID WONDER WHERE I GOT THE EARS.

WHAT WILL YOU TRY TO INVENT USING RECYCLED WASTE?! READ ON! →

DO OR DO NOT. THERE IS NO TRY. HAPPILY, RESIDUALS THERE ARE.

Welcome to Inventerprise 2005

Here's the problem:

As the Earth's population continues to grow, space, materials, and energy are becoming scarcer and more expensive. How we will live in the future depends on the solutions we create today. Let's get started!

- **Redesign an existing product so that it produces less waste or uses less energy, or**
- **Invent a gadget using materials that are usually thrown away, or**
- **Invent a multifunctional device that will save space, resources, or both (e.g. washer/dryer combination, a DVD/VCR, a couch/foldout bed)**

The next pages contain ideas to help you get started.

Official Rules

1. Any Central Oregon student in grades K-12 may enter. In grades K-8, students may enter in groups of up to three students. Only individual entries are allowed in the high-school competition.
2. Use any format you like for your contest entry. Examples are pictures, models, board games, descriptions, computer programs, dramas, tapes, or whatever medium best conveys your ideas.
3. Please bring or mail your entries to Bend Research Inc., 64550 Research Road, Bend, OR 97701. Entry deliveries will be accepted Wednesday, November 9, through Friday, November 11. **Entries must be received by 5 p.m. Friday, November 11, 2005.**
4. Include your first and last name, teacher's name, grade, and school name on the entry form provided. Cut it out and attach it to your entry. **Make sure your name is on each piece of your entry**. Your entry will be returned to you if you check the box on the entry form.
5. A panel will judge entries for creativity, originality, coolness, and how well ideas are developed. **Entries must not defy the laws of nature.**
6. Fabulous prizes (specially designed T-shirts) will be awarded to the top entrants in grades K-8. Winners will also be invited to a special Science Night presentation in their honor. Less-fabulous prizes will be awarded for good efforts.
7. **Cash prizes of up to $1,000** will be awarded to the best high-school entries. The student submitting the best middle-school entry will chose between a **digital camera, an iPod®, or a mountain bike.**
8. **K-5 teachers** whose classes have greater than 50% participation will share at least $1500 in gift certificates for classroom supplies. Visit our website for details.
9. Winners will be announced by December 1, 2005. **Have fun!**

For more information, go to our website at http://www.cocc.edu/inventerprise
or call Heidi at 382-0212, ext. 242, or Chris at 382-0212, ext. 113.

Inventerprise is sponsored by Bend Research Inc., with help from the Bend-La Pine School District and Central Oregon Community College.

Topics To Consider

Agriculture	Invent ways to recover energy that has previously been wasted in farming operations. Agricultural waste offers huge potential for new products.
Manufacturing	Change a manufacturing process to recover energy. This can result in big profits.
Energy	Brainstorm clever ideas for capturing, taming, and storing the energy from hurricanes, lightning, gamma rays, or other forms of damaging nuisance energy.
Mining	Mining generates tons of unwanted material. How would you rethink mining operations?
Biodegradables	New products made from 100% biodegradable materials make recycling unnecessary. Invent a product made from biodegradable materials.
Technology	Create a sensational new gadget built from recycled materials. Invent a new use for an old gadget. Improve the design of an inefficient or wasteful product.
Community	Design new building methods that use recycled material. Dream up ideas for using energy wasted around the house, school, or factory.
Transportation	Hybrid cars are just a start. Discover even more ways to recycle wasted energy in planes, trains, and/or automobiles.

Choose one or more of these topics or invent your own topic related to recycling.

Inventerprise 2005 Entry Form

Please Print

Grade _____ School _____ Teacher _____

Student Name(s) _____ Entry Title _____
First Last

_____ _____
First Last

_____ _____
First Last

Check this box if you want your entry returned ☐

Make sure your name is on each piece of your entry. Number of entry parts _____

(Please cut out this form and firmly attach it to your contest entry.)

Recycling Data

- In 2003, U.S.residents, businesses, and institutions produced more than 236 million tons of solid waste, which works out to about 4.5 pounds per person per day.
- Forty-two percent of all paper, 40% of all plastic soft-drink bottles, 55% of aluminum cans, 57% of steel packaging, and 52% of major appliances **are** currently recycled.
- When paper is deeply colored or has a plastic film attached, the different materials can be so hard to separate that the paper can't be recycled. Examples of papers that cannot typically be recycled include intensely colored paper, sheets of address labels, kraft or Tyvek® envelopes, paper towels/cups/plates, pet food/charcoal/ fertilizer bags, waxed paper and waxed cardboard, frozen-food boxes, facial tissue, paper napkins, wrapping paper, carbon paper, juice boxes, and photographs.
- Not all recyclables can be recycled everywhere. Some restrictions in the Bend area include plastic containers without necks, drink pouches, plastic lids, plastic cups, clamshells and other "to-go" containers, and metals with wood or plastic attached.

Some Current Reuses

- The Trex Company turns millions of pounds of used milk jugs, grocery bags, and hardwood shipping pallets into decking boards that need no paint or other finish. The boards don't splinter or rot, and they require no toxic treatment to prevent decay. The boardwalks at Yellowstone Park have been replaced with these boards, as have many decks here in Central Oregon
- One major oil company is working on a process that converts polyethylene grocery bags and other recycled plastics into high performance motor oil.
- Food-grade grease is being converted into biodiesel fuel to power vehicles with diesel engines. The exhaust can smell delicious!
- Old tires are being filled with cement to create artificial reefs. Recyclers are also shredding them, removing their steel belts and studs, and then mixing them with asphalt to provide a cushioned surface for running tracks and playgrounds or lightweight curbing for parking lots or landscaping.
- PETE, the plastic used in most soda bottles, is processed into many different types of products from car bumpers to Polarfleece™.

Recycled Energy: The Hybrid Car

Hybrid electric cars improve gas efficiency and reduce emissions by combining energy from a gasoline engine and an electric motor. The Toyota Prius is an example of hybrid technology. This hybrid electric vehicle never needs to be plugged in because it generates all its own electricity either by running the gasoline generator or by harvesting energy that is usually lost by stopping the car through a passive braking system. At low speeds, the car runs off the electric motor powered by the batteries. At high speeds, the gasoline engine provides most of the power. When the battery charge is low, a gas-powered generator recharges it. When the car is stopped, the gas engine shuts off entirely, saving fuel while the electric motor waits silently to be called into action.

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