



# Rise and Grind: Minimizing Food Waste

Fergus Moore, Revive Eco  
Scotland

## ☀ Call to Action

**Turn waste into something useful. Use your imagination to create innovative, positive action. Follow Fergus on Twitter @revive\_eco and learn about Revive Eco: [revive-eco.com](http://revive-eco.com)**

## ☀ Values

- Creativity
- Imagination
- Resourcefulness
- Curiosity
- Environmentalism

## ☀ Lessons Learned

**A complex problem is just a compilation of smaller, simpler problems to be solved.**

**If you feel overwhelmed by the scale of a problem, try breaking it up into smaller parts, and focus on solving them one at a time.**

**Our culture has created challenges, but also the opportunity to tackle those challenges.** Look around you. The solution to the problem might be closer than you think.

**Complicated problems can have simple solutions based on logic, common sense—and curiosity!**

**In Scotland, where every year more than 40,000 tons of used coffee grinds end up in landfills, Fergus Moore and Scott Kennedy—two budding entrepreneurs—set out to find a way to reduce this waste and turn it into something useful.**

They founded Revive Eco in 2015 and invented a machine that could convert coffee waste into renewable products. They're now pitching their product to some of the biggest coffee brands in the world, the likes of Starbucks, Lush, and Nestle.

## ☀ Language Arts

**Watch this video on [How to Pitch Your Start-Up in 3 Minutes](#)<sup>1</sup>.** Then, go to the [Shark Tank Scholastic](#)<sup>2</sup> website and download the handouts on how to create a sales pitch. Next, drawing inspiration from Fergus's story, write the script for a business pitch in which your company is offering an innovative piece of technology to deal with waste on a massive scale for a major industry. Your pitch must be three minutes long.

**Food waste is a huge problem around the world.** Choose one particular product in the food industry that you are interested in, and research the amount and type of waste it produces and the impact this has on the environment, as well as possible ways of mitigating it.

**Using the information you gathered in your research, create a presentation for your peers in which you talk about the topic you have chosen.** Your presentation must have at least 10 slides, and you must use not only still images, but also video (it can be original video, or video from secondary sources)

## STEM Activities

**Research what Starbucks is doing to support sustainability.** Describe what aspect of their operation is the least sustainable (for example, CO2 emissions). How do you think this could be improved? How could Revive Eco help to improve sustainability at Starbucks?

**Write down all of the actions you take, and products you use, on an average day.** Identify one product that you use that is not sustainable, and research alternative products, or companies that are designing ways for the product to be more sustainable.

**Fruits and vegetables can do more than just give our bodies energy.** In this [activity<sup>3</sup>](#), students experiment with different fruits and vegetables to determine how much electrical energy each produces. Then, using the engineering design process, they will design an optimal circuit using a selection of fruits and vegetables that produces enough energy to power a small electronic device.

**Many of nature's adaptations result in the conservation of energy and reduction of waste, which are variables of interest to engineers and manufacturers.** In this [activity<sup>4</sup>](#), students are introduced to the concepts of biomimicry and sustainable design to see how engineers gain inspiration from studying nature and its unique properties to improve human practices, and ultimately protect the environment.

## Sustainability Innovations

**In addition to Revive Eco, many other companies are finding ways to reuse coffee grounds for other purposes.** [Kaffee Form<sup>5</sup>](#) is a German-based company that takes coffee grounds and turns them into coffee cups. And [Up Circle Beauty<sup>6</sup>](#) uses coffee grounds as a base for their line of skin products.

**Many large companies have found innovative ways to transform coffee into a more sustainable product.** However, it is not just up to large institutions to reduce waste from coffee. This [article<sup>7</sup>](#) tells 15 ways that the average person can practice sustainability by reusing coffee grounds.

**The inventors of Revive Eco identified coffee-drinking as a part of their own lives that could be made more sustainable for everyone.** There are many other aspects of our daily lives that young entrepreneurs can tackle in order to leave a more sustainable footprint on our world. [Young Sustainable Impact Global<sup>8</sup>](#) helps young entrepreneurs find ways to solve sustainability challenges.

## Sustainability Career Pathways

**Circular Economy Entrepreneur.** While people often think about designing products in ways that they can be more easily recycled or reused, another key part of the circular economy is innovating ways to better collect and reuse waste—such as used cups, plastic waste, and coffee grounds, among many other things. As we shift to new ways to consume and do business, there will be lots of opportunities to participate in the circular economy. This article's inspiring circular economy entrepreneur stories can help get your creative juices percolating and thinking about what unique and sustainable niche you might want to be a part of. [Read here<sup>9</sup>](#).

**Coffee Careers!** With so many people loving coffee, there are literally millions of jobs in this industry (1.7 million jobs just in the US!) If you want to make a career in the coffee industry, you could work with sustainable farmers, run a sustainable cafe, or like Revive Eco, find ways to make coffee drinking more sustainable--by addressing the waste created by spent grounds and used cups, or the amount

of water and type of energy used in cafes. Want to learn more? Here's an [introduction](#)<sup>10</sup> that explores some of the issues to consider in order to make coffee consumption more sustainable (whether you're looking for a particular brand to support, or a good company to work for).

**Composter.** Your parents might already compost waste in your backyard. But many cities are starting to require food waste of all sorts (including coffee!) to be composted, with some even picking up composted materials, along with garbage and recycling. This means that there are a growing number of jobs in industrial-scale composting, as well as in government management of it. It may not be the “sexiest” career path, but helping to turn food waste into soil is a pretty noble career! If you want to learn more, start with this [short essay about the potential growth of the composting industry](#)<sup>11</sup>.

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1 [https://www.youtube.com/watch?v=XWRtG\\_PDRik](https://www.youtube.com/watch?v=XWRtG_PDRik)

2 [https://www.youtube.com/watch?v=XWRtG\\_PDRik](https://www.youtube.com/watch?v=XWRtG_PDRik)

3 <https://www.teachengineering.org/activities/view/rut-2497-food-electrical-circuit-device-design>

4 [https://www.teachengineering.org/lessons/view/van\\_biomimicry\\_lesson4](https://www.teachengineering.org/lessons/view/van_biomimicry_lesson4)

5 <https://www.kaffeeform.com/>

6 <https://upcirclebeauty.com/>

7 <https://www.healthline.com/nutrition/uses-for-coffee-grounds>

8 <https://ysiglobal.com/>

9 <https://medium.com/age-of-awareness/10-circular-entrepreneurs-in-europe-with-a-passion-for-sustainability-8fb221a37529>

10 <https://bigcupofcoffee.com/best-sustainable-coffee-brands/>

11 <https://ilsr.org/composting-sense-tables/>

