

# Plastics & the Environment Lesson

- Lesson
- Word Search and Scramble
- NO PREP - Just download and Go!

**10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> Grade**



**SCROLL**  
to take a look inside!

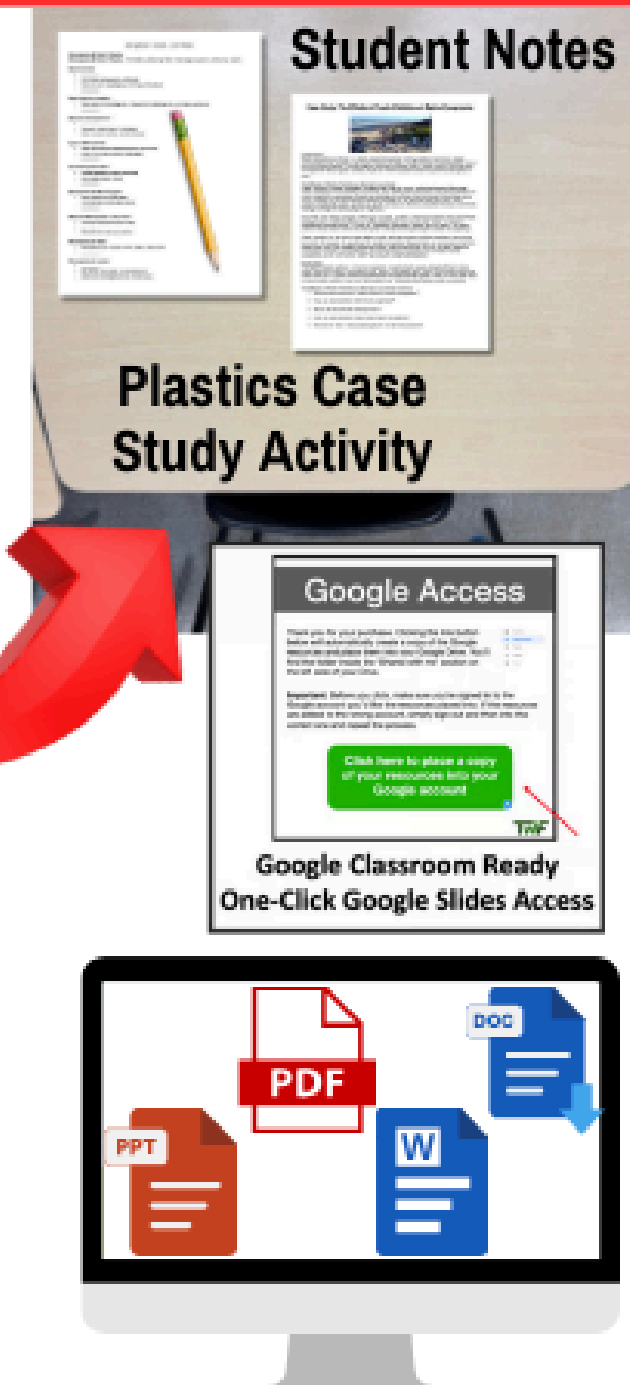


# HOW THIS LESSON HELPS YOU

- **Saves Prep Time** - Everything is pre-made, ready to go, and fully editable.
- **Provides Built-In Assessments** - The Exit Ticket and Plastics Case Study on Marine Pollution Activity let you quickly check for understanding.
- **Provides Applicability** - the lesson includes multiple examples of real-life applications.

## NO PREP

- ✓ **Simply Download and Teach/Upload** to your class site.
- ✓ **Assessment Included**  
4 Question, Auto-Graded Exit Ticket + Plastics Case Study Activity
- ✓ **Interactive & Video-Enhanced Lesson**
- ✓ **Google, Office, & PDF**





**A Complete, Fully-  
Editable Lesson &  
Student Notes**



**Teacher and Student  
Versions of your Lesson  
with Embedded Videos**



**4 Question, Auto-  
Graded Exit Ticket +  
Plastics Case Study on  
Marine Pollution**

## What You Get

### PLASTICS LESSON

TEACHER & STUDENT VERSION

**Student Notes**

**Plastics Case Study Activity**

**Environmental Consequences of Plastics**

- The ocean transports plastic around the world
- \_\_\_\_\_

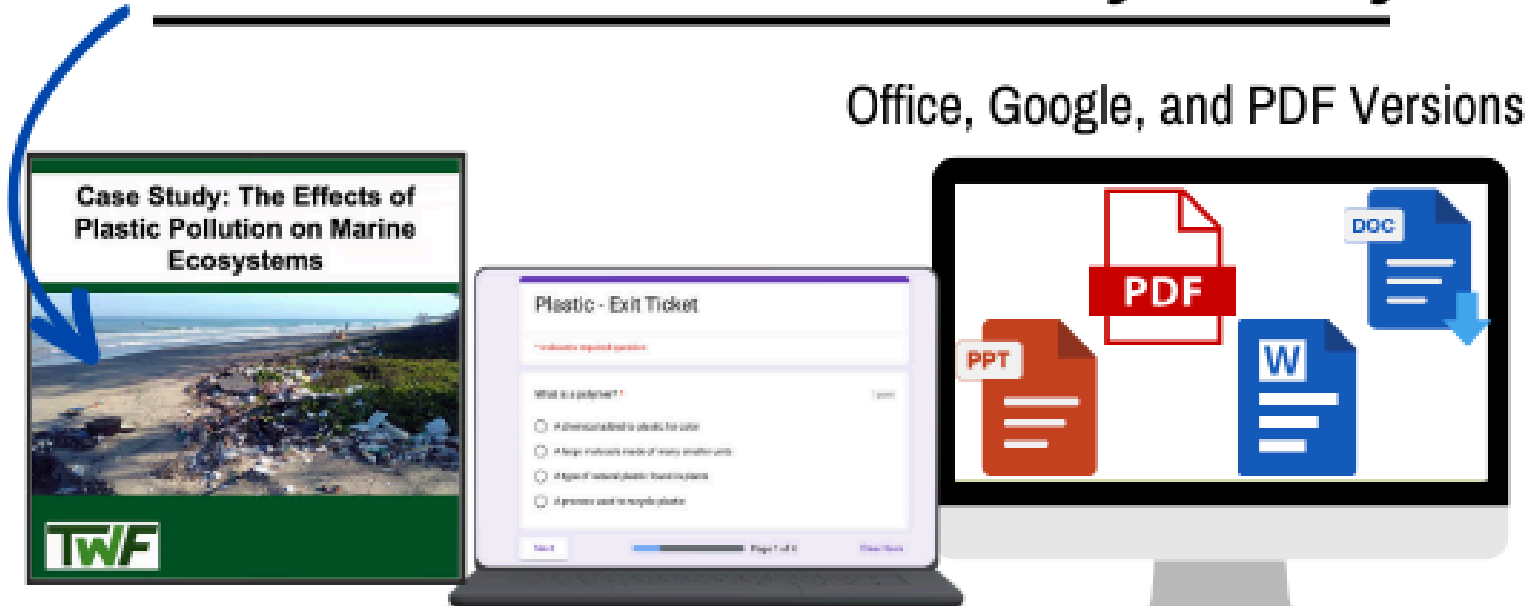
**Student version of the lesson includes blanks to fill in.**

# What Will Your Students Learn?

## Videos Embedded & Student Notes



## Exit Ticket + Plastics Case Study Activity



- ✓ What Are Plastics?
- ✓ How Plastics Are Made
- ✓ The History of Plastics
- ✓ Current Uses of Plastics
- ✓ Environmental Consequences of Plastics
- ✓ The Future of Plastics



# Your Lesson

## Plastics: Student Notes

- What Are Plastics?**
- Plastic: \_\_\_\_\_
  - Polymers: \_\_\_\_\_
  - Organic: \_\_\_\_\_
  - Some found in nature
  - Most synthetic (man-made)
  - \_\_\_\_\_
  - Most \_\_\_\_\_
    - E.g., won't dissolve when in contact with most substances, including acid, alcohol, and gasoline
  - \_\_\_\_\_
  - Two main types: \_\_\_\_\_
    - \_\_\_\_\_
    - \_\_\_\_\_ be melted down to make something new
  - Thermoset plastics
    - \_\_\_\_\_
    - Polyesters
    - Phenolics
    - \_\_\_\_\_ (~90% of modern plastics)
      - Monomers joined via chemical reactions prior to molding
      - Looser bonds
      - \_\_\_\_\_ be melted down and made into another product
  - Thermoplastics
    - \_\_\_\_\_
    - Polyvinylidene chloride (Saran)
    - \_\_\_\_\_
    - Polytetrafluoroethylene (Teflon)
    - \_\_\_\_\_
    - Polyethylene (PE): \_\_\_\_\_
- How Plastics Are Made**
- Fractional distillation of crude oil
    - Like water purification (boil, then condense → removes water)
    - Need to get \_\_\_\_\_
    - Different hydrocarbons boil and condense at different temperatures
  - Polymerization: \_\_\_\_\_
    - \_\_\_\_\_: bond hydrocarbons to one another by breaking atoms, which allows them to form single bonds with other atoms
    - \_\_\_\_\_: bond hydrocarbon chains to one another by breaking water
    - Produces resin: \_\_\_\_\_

Student Notes in Word

1-Click Google Access

Teacher and Student Versions of the Lesson

Videos embedded in your slides

**Google Access**

Thank you for your purchase. Clicking the link button below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the 'Shared with me' section on the left side of your Drive.

**Important:** Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then into the correct one and repeat the process.

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## PLASTICS LESSON TEACHER & STUDENT VERSION

**Student Notes**

**Plastics Case Study Activity**

**Environmental Consequences of Plastics**

- The ocean transports plastic around the world
- \_\_\_\_\_

**Student version of the lesson includes blanks to fill in.**

## Videos Embedded & Student Notes

**Plastics**

- The ocean transports plastic around the world
- **Ocean gyres collect plastic waste in "garbage patches"**

**Student Notes**

**As a special bonus, I want to send you a few resources that you can use in your classroom tomorrow. Completely free and geared towards what you teach!**



**Just**  **and then choose what you teach!**

*thanks*  
**for your interest  
in this resource!**



 [devon@teachwithfergy.com](mailto:devon@teachwithfergy.com)