⛽ Biofuel & Energy notes (A3, A5, A6, A7, A8) · ANSWER KEY

Biology A · Unit 3 Biofuel & Energy · Level 2 guided notes. Use with the class slides.

Name: _____

Fill in each blank with a word from the word bank in that box. Each word is used one time.

A. Matter and energy (A3)

1. Matter has **mass** and takes up space.
2. Energy has no mass. It makes things move or **change**.
3. Match the energy to the example:

(Key: Potential → water behind a dam · Kinetic → a rolling boulder · Chemical → food and fuel · Thermal → heat)

Potential	food and fuel
Kinetic	heat
Chemical	water behind a dam
Thermal	a rolling boulder

4. Energy moving to a new place is a **transfer**. Energy changing form is a transformation.

Word bank: change · mass · transfer

B. Lipids (A5)

5. Fats and oils are called **lipids**.
6. A fat is made of glycerol and three fatty **acids**.
7. Which stores more energy per gram? (circle 1)

lipids (fats) · sugar

Word bank: acids · lipids

C. Making biofuel (A6)

8. Biodiesel is made from plant or algae **oil**.
9. Biodiesel is **renewable** because plants grow back fast.
10. Number the energy changes when a bus burns biodiesel (1-3):

2 heat when it burns

1 chemical energy in the fuel

3 mechanical energy moves the bus

Word bank: oil · renewable

D. Energy reactions (A7)

11. A reaction that gets hot is **exothermic** .

12. A reaction that gets cold is **endothermic** .

13. Baking soda + vinegar made the cup… (circle 1)

colder hotter

Word bank: **endothermic** **exothermic**

E. Carbon cycle (A8)

14. Coal, oil, and natural gas are **fossil** fuels.

15. Plants and algae take carbon dioxide out of the **air** .

16. Which do NOT put carbon dioxide into the air? (circle 1)

photosynthesis burning breathing

Word bank: **air** **fossil**

Level 2 version of the gen ed "A3 Characteristics of Matter and Energy, A5 Making Lipids, A6 Making Biofuel, A7 Energy Reactions, A8 Carbon Cycle."

🔑 *Key written by our team from Ms. Dunham's materials, please check.*