

BIO-QUESTIONS- Educational board game

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Created by: APRE, Agency for the Promotion of European Research

Technical contribution: AIJU, Technological Institute for children's products and leisure

Scientific validation by: BTG Biomass Technology Group B.V.

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The game is considered validated **and under APRE's ownership** in its contents but not in its visual elements. The visual prototype (wireframe) has been used to conduct the various steps of the validation process in order to collect additional data for its replication in other educational contexts. We underline that the draft provided is only a model and that it will not be replicated in the final graphics. In the future we will proceed with the conception, validation and creation of the final product complete with all its visual components. Any feedback from using the game will be helpful to our validation process. Thanking you for your help, we ask you to contact us at the following email: genb@apre.it

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Cut the Question cards along the edges

QUESTIONS	DEEPENING
<p>1. What can a bio-based phone cover be made of?</p> <ul style="list-style-type: none"> a. Silicone b. Cork c. Iron <p>Difficulty: Average</p>	<p>The phone cover can be made using bio-based materials such as cork, which is sustainable and biodegradable.</p>
<p>2. What is a bio-based product?</p> <ul style="list-style-type: none"> a. A product derived entirely or partially from biological sources (plants/animals) b. A product certified as organic c. A product based on biological studies <p>Difficulty: Easier</p>	<p>A bio-based product is made primarily or partially from biological sources, such as plants or animals, rather than from non-renewable sources such as oil.</p>
<p>3. What is biodiversity?</p> <ul style="list-style-type: none"> a. The variety of all living beings on Earth b. A collection of only plants c. A collection of only animals <p>Difficulty: Easier</p>	
<p>4. What can be produced from fish oil?</p> <ul style="list-style-type: none"> a. Soaps b. Eraser c. Lunch box <p>Difficulty: Average</p>	
<p>5. What does compostable mean?</p> <ul style="list-style-type: none"> a. That can be used as compost when it decays b. It biodegrades almost anywhere c. Composed by a specialized operator <p>Difficulty: Easier</p>	

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<p>6. What does biodegradable mean?</p> <ul style="list-style-type: none"> a. That the product degrades naturally in the environment thanks to the action of microorganisms such as bacteria and fungi b. It dissolves only in water and not in other solvents c. It dissolves in the soil <p>Difficulty: Harder</p>	
<p>7. What can coffee grounds be used for?</p> <ul style="list-style-type: none"> a. Drinking b. Used to make a scrub c. A mirror <p>Difficulty: Average</p>	
<p>8. What can tomato seeds and peels be transformed into?</p> <ul style="list-style-type: none"> a. Cosmetics b. Fabrics c. A leaf <p>Difficulty: Harder</p>	
<p>9. What can be produced from bamboo?</p> <ul style="list-style-type: none"> a. Blackboard b. Scarf c. Earphones <p>Difficulty: Harder</p>	
<p>10. What can be obtained from the poo of herbivorous animals (cows, horses, etc.)?</p> <ul style="list-style-type: none"> a. Pasta b. Pens c. Paper 	

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Difficulty: Easier	
<p>11. What is a renewable energy source?</p> <ul style="list-style-type: none"> a. Wind b. Gasoline c. Plutonium 	Wind is a renewable energy source that can be harnessed to generate electricity through wind turbines.
Difficulty: Easier	
<p>12. What does someone who respects nature train with?</p> <ul style="list-style-type: none"> a. Bio-based mats b. Plastic boxing gloves c. Rubber bands 	
Difficulty: Average	
<p>13. Can waste milk be worn?</p> <ul style="list-style-type: none"> a. Yes, as clothing b. No, it would slip off c. No, it would go bad 	From milk production waste, through various controlled processes, it is possible to transform the main milk protein (casein) into a natural yarn (Latinal) for the production of clothes and fabrics.
Difficulty: Harder	
<p>14. What can be obtained from wine production waste?</p> <ul style="list-style-type: none"> a. Elastic bands b. Biofuels c. Tennis racket 	
Difficulty: Average	
<p>15. What is biomass?</p> <ul style="list-style-type: none"> a. A natural science b. Substances of biological origin, plant or animal c. A mass derived from human activities 	
Difficulty: Average	

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16. What do the 3 Rs stand for in the field of circular bioeconomy and sustainability?

- a. Reduce, restore, recycle
- b. Remember, recycle, repair
- c. **Reduce, reuse, recycle**

Difficulty: **Harder**

17. What does Renewable mean?

- a. **A resource that regenerates in a time frame comparable to its depletion over time**
- b. Photovoltaic, wind, hydroelectric, etc.
- c. A resource that is used to produce an energy that never runs out

Difficulty: **Average**

18. What is spirulina?

- a. Toy
- b. **Algae**
- c. A medicine

Difficulty: **Harder**

19. What is global warming?

- a. The weather on a sunny day
- b. **The increase in average temperature throughout the year. The most recent one we are experiencing is caused by human activities**
- c. Winter that became warmer

Difficulty: **Easier**

20. What can you obtain using the bark of a tree?

- a. Lamp
- b. **Carpet**
- c. Pot

Difficulty: **Harder**

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<p>21. What is a bio-based plastic?</p> <ul style="list-style-type: none"> a. A material that is produced entirely or partially from biological resources b. It is a material derived from fossil sources c. It is a material invented only to build houses <p>Difficulty: Easier</p>	
<p>22. What does the Latin word <i>bio</i> refer to?</p> <ul style="list-style-type: none"> a. Related to living beings b. A type of vegetable c. A type of dinosaur <p>Difficulty: Average</p>	
<p>23. What is sustainable development?</p> <ul style="list-style-type: none"> a. Development that ensures the satisfaction of the needs of the present generation without compromising those of future generations. b. Support a friend emotionally c. Support a heavy object <p>Difficulty: Easier</p>	
<p>24. A toothbrush is very important for the health of our teeth, but it can also be useful to the Earth. What material could a sustainable toothbrush be made of?</p> <ul style="list-style-type: none"> a. Plastic b. Bamboo c. Cocoa <p>Difficulty: Average</p>	
<p>25. What product can coffee waste be turned into?</p> <ul style="list-style-type: none"> a. Fertilizer b. Water c. A slime (type of toy for kids) <p>Difficulty: Average</p>	

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<p>26. What product can used cooking oil be turned into?</p> <ul style="list-style-type: none"> a. Medicines b. Wine c. Biofuels <p>Difficulty: Harder</p>	
<p>27. What product can be produced from algae?</p> <ul style="list-style-type: none"> a. Swimming fins b. Hygiene products c. Nail polish <p>Difficulty: Harder</p>	
<p>28. Which of the following is the best option for living in a healthy environment?</p> <ul style="list-style-type: none"> a. Reusing objects to produce less waste b. Extinction c. Taking the car every day for transportation <p>Difficulty: Easier</p>	
<p>29. What can be produced from donkey poo?</p> <ul style="list-style-type: none"> a. Notebook b. Water bottle c. A candle <p>Difficulty: Easier</p>	
<p>30. What is spirulina used for?</p> <ul style="list-style-type: none"> a. Washing b. Sleeping better c. Having more energy <p>Difficulty: Harder</p>	

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<p>31. What is a biorefinery?</p> <ul style="list-style-type: none"> a. Biological industry b. A plant that transforms biomass into bio-based products and bioenergy c. A plant where bioenergy is produced <p>Difficulty: Average</p>	
<p>32. What is circular economy?</p> <ul style="list-style-type: none"> a. The economy that takes place in a circus b. A type of economy where a product is used as long as possible through recycling c. An economy based on waste recycling <p>Difficulty: Harder</p>	
<p>33. What are the advantages of using bio-based materials compared to conventional ones?</p> <ul style="list-style-type: none"> a. They usually reduce the emission of greenhouse gases b. They are cheaper c. They increase air pollution <p>Difficulty: Easier</p>	

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