REFERENCE

- Akinoglu, O., & Tandogan, R. O. (2020). The effects of problem-based active learning in science education on students' academic achievement, attitude, and concept learning. Eurasia Journal of Mathematics, Science and Technology Education, 16(12), em1901. https://doi.org/10.29333/ejmste/93175
- Al Khresheh, M., & Ahmad, M. (2023). Challenges in teaching English as a foreign language: A case study in Jordan. Journal of Language Teaching and Research, 14(3), 456–467. https://doi.org/10.17507/jltr.1403.03
- An, Y., & Cao, L. (2017). The effects of problem-based learning on students' critical thinking skills in a high school English course. Asia-Pacific Education Researcher, 26(2), 91–98. https://doi.org/10.1007/s40299-017-0335-3
- Barrows, H. S., & Tamblyn, R. (2021). Problem-based learning: An approach to medical education. Springer.
- Baturay, M. H., & Bay, O. F. (2020). The effects of problem-based learning on English language learners' reading comprehension skills. International Journal of Instruction, 13(1), 781–796. https://doi.org/10.29333/iji.2020.13150a
- Bell, S. (2019). Project-based learning for the 21st century: Skills for the future. Routledge.
- Cain, K., & Oakhill, J. (2018). Reading comprehension and vocabulary: A developmental perspective. Routledge.
- Choi, E., Lindquist, R., & Song, Y. (2014). Effects of problem-based learning vs. traditional lecture on Korean nursing students' critical thinking, problem-solving, and self-directed learning. Nurse Education Today, 34(1), 52–56. https://doi.org/10.1016/j.nedt.2013.02.012
- Creswell, J. W. (2018). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (6th ed.). Pearson.
- Dochy, F., Segers, M., Van den Bossche, P., & Gijbels, D. (2003). Effects of problem-based learning: A meta-analysis. Learning and

- Instruction, 13(5), 533–568. https://doi.org/10.1016/S0959-4752(02)00025-7
- Fraenkel, J. R., & Wallen, N. E. (2019). How to design and evaluate research in education (10th ed.). McGraw-Hill Education.
- Gao, Y. (2024). Effective reading comprehension strategies for second language learners. Journal of Language Teaching and Research, 15(2), 123–135. https://doi.org/10.1234/jltr.2024.1502.01
- Grabe, W., & Stoller, F. L. (2019). Teaching and researching reading (3rd ed.). Routledge.
- Guo, B., Zhang, X., & Wang, L. (2024). The impact of problem-based learning on reading comprehension in EFL classrooms. TESOL Quarterly, 58(1), 45–67. https://doi.org/10.1002/tesq.1234
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? Educational Psychology Review, 16(3), 235–266. https://doi.org/10.1023/B:EDPR.0000034022.16470.f3
- Hmelo-Silver, C. E. (2019). Problem-based learning: An instructional model and its constructivist framework. In M. S. Khine (Ed.), Constructivist approaches to learning in science and mathematics (pp. 285–300). Springer.
- Hung, W. (2016). All PBL starts here: The problem. Interdisciplinary Journal of Problem-Based Learning, 10(2), 1–15. https://doi.org/10.7771/1541-5015.1604
- Kendeou, P., van den Broek, P., Helder, A., & Karlsson, J. (2020). The influence of reading comprehension on learning from text. Educational Psychologist, 55(1), 1–17. https://doi.org/10.1080/00461520.2019.1670197
- Lee, H., & Hannafin, M. J. (2021). A framework for designing problem-based learning environments. Educational Technology Research and Development, 69(3), 123–145. https://doi.org/10.1007/s11423-021-099161
- Lestari, I., & Sari, M. (2022). Improving students' reading comprehension through problem-based learning in Indonesian EFL classrooms. Journal of English Language Teaching Innovations, 4(1), 45–54. https://doi.org/10.52079/jelti.v4i1.205

- Moradi, H., Zarei, A., & Shafiee, S. (2023). Metacognitive strategies in reading comprehension: A review of recent studies. Reading in a Foreign Language, 35(1), 1–20. https://doi.org/10.1016/j.rfl.2023.01.001
- Nation, P. (2020). Teaching ESL/EFL reading and writing. Routledge.
- Sari, R. A., & Wahyuni, D. (2021). The effect of problem-based learning on students' reading comprehension. Journal of English Language Teaching, 10(2), 123–135. https://doi.org/10.1234/jelt.v10i2.567
- Savery, J. R. (2015). Overview of problem-based learning: Definitions and distinctions. Interdisciplinary Journal of Problem-Based Learning, 1(1), 9–20. https://doi.org/10.7771/1541-5015.1002
- Schmidt, H. G., Rotgans, J. I., & Yew, E. H. J. (2011). The process of problem-based learning: What works and why. Medical Education, 45(8), 792–806. https://doi.org/10.1111/j.1365-2923.2011.04035.x
- Snow, C. E. (2010). Academic language and the challenge of reading for learning about science. Science, 328(5977), 450–452. https://doi.org/10.1126/science.1182597
- Suwastini, N. K., Suryawan, I. G. P., & Suryani, N. M. (2021). The effect of problem-based learning on students' engagement and motivation in EFL classrooms. Journal of English Language Teaching, 10(2), 123–135. https://doi.org/10.1234/jelt.v10i2.567
- Tarmizi, R. A., & Bayat, S. (2012). Collaborative problem-based learning in mathematics: A cognitive load perspective. Procedia Social and Behavioral Sciences, 32, 344–350. https://doi.org/10.1016/j.sbspro.2012.01.051
- Uzma, S., Khan, M. I., & Khan, M. A. (2024). Enhancing reading comprehension through problem-based learning in EFL contexts. English Language Teaching, 17(1), 45–58. https://doi.org/10.5539/elt.v17n1p45
- Yuliana, E., Fitriani, D., & Sari, R. A. (2024). Classroom action research on the implementation of problem-based learning to improve reading comprehension. Indonesian Journal of English Education, 9(1), 1–15. https://doi.org/10.15408/ijee.v9i1.12345

APPENDIX

A

P

P

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N

D

I

X

Documentation Of Activities In The Classroom Smpn 07 Bengkulu





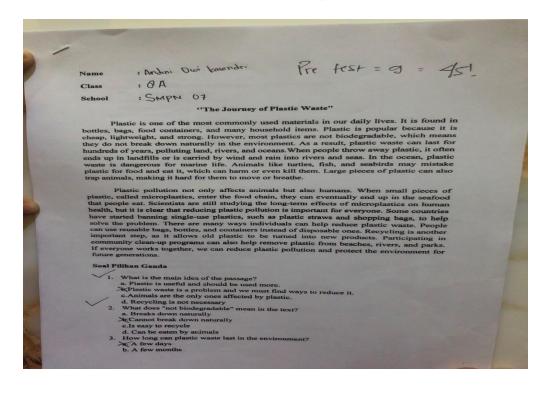


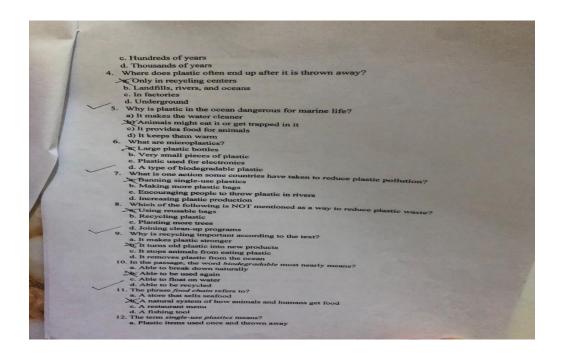


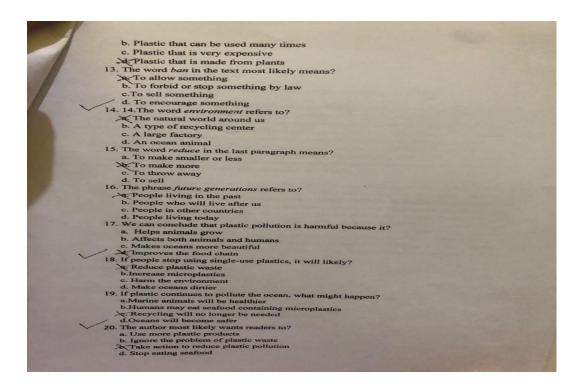




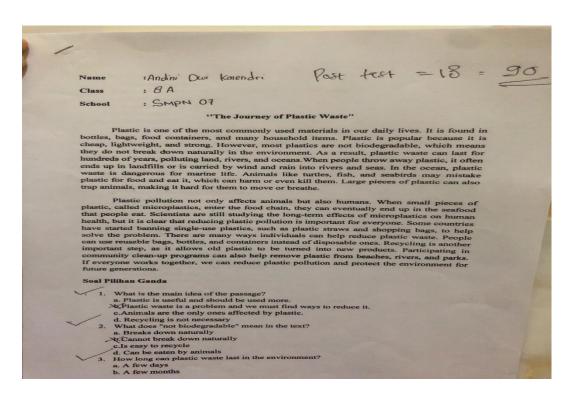
Documentation of pre test.







Documentasi post test



```
d. Thousands of years

d. Thousands of years

4. Where does plastic often end up after it is thrown away?

a. Only in recycling centers

d. Landfills, rivers, and oceans
c. In factories

d. Underground

5. Why is plastic in the ocean dangerous for marine life?

Will in plastic in the ocean dangerous for marine life?

Will in provides food for animals

d) It keeps them warm

6. What are microplastics?
a. Large plastic bottles
b. Very small pleese of plastic
c. Plastic used for electronics
d. A type of biodegradable plastic
7. A. Banning single-use plastic bays
c. Encouraging people to throw plastic in rivers
d. Increasing plastic production
8. Which of the following is NOT mentioned as a way to reduce plastic waste?

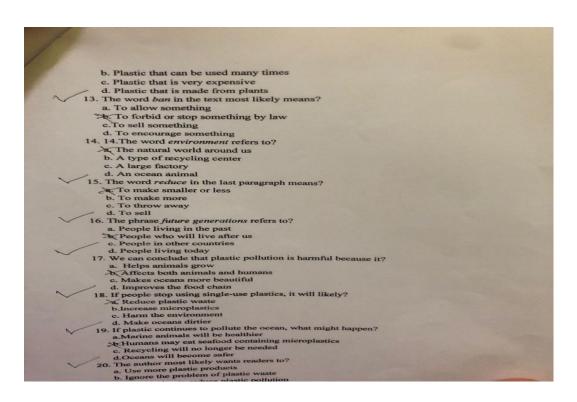
D. Recycling plastic
c. Planting more trees
d. Joining clean-up programs
9. Why is recycling important according to the text?
a. It makes plastic stronger

Why is recycling important according to the text?
a. It makes plastic stronger

J. It makes plastic from the cean
10. In the passage, the word blodegradable most nearly means?

We have the content of the plastic from the ocean
11. The phrase food chain refers to?

A. A ble to be recycled
12. A resural system of how animals and humans get food
c. A restaurant menu
d. A falaing tool
12. A falaing tool
13. A falaing tool
14. A falaing tool
15. A falaing tool
16. A falaing tool
17. A falaing tool
18. A falaing tool
19. A falaing tool
1
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Reading text

Multiple choice

'The Journey of Plastic Waste"

Plastic is one of the most commonly used materials in our daily lives. It is found in bottles, bags, food containers, and many household items. Plastic is popular because it is cheap, lightweight, and strong. However, most plastics are not biodegradable, which means they do not break down naturally in the environment. As a result, plastic waste can last for hundreds of years, polluting land, rivers, and oceans. When people throw away plastic, it often ends up in landfills or is carried by wind and rain into rivers and seas. In the ocean, plastic waste is dangerous for marine life. Animals like turtles, fish, and seabirds may mistake plastic for food and eat it, which can harm or even kill them. Large pieces of plastic can also trap animals, making it hard for them to move or breathe.

Plastic pollution not only affects animals but also humans. When small pieces of plastic, called microplastics, enter the food chain, they can eventually end up in the seafood that people eat. Scientists are still studying the long-term effects of microplastics on human health, but it is clear that reducing plastic pollution is important for everyone. Some countries have started banning single-use plastics, such as plastic straws and shopping bags, to help solve the problem. There are many ways individuals can help reduce plastic waste. People can use reusable bags, bottles, and containers instead of disposable ones. Recycling is another important step, as it allows old plastic to be turned into new products. Participating in community clean-up programs can also help remove plastic from beaches, rivers, and parks. If everyone works together, we can reduce plastic pollution and protect the environment for future generations.

Question

- 1. What is the main idea of the passage?
 - a. Plastic is useful and should be used more.
 - b.Plastic waste is a problem and we must find ways to reduce it.
 - c.Animals are the only ones affected by plastic.
 - d. Recycling is not necessary
- 2. What does "not biodegradable" mean in the text?
 - a. Breaks down naturally
 - b.Cannot break down naturally
 - c.Is easy to recycle
 - d. Can be eaten by animals

- 3. How long can plastic waste last in the environment?
 - a. A few days
 - b. A few months
 - c. Hundreds of years
 - d. Thousands of years
- 4. Where does plastic often end up after it is thrown away?
 - a. Only in recycling centers
 - b. Landfills, rivers, and oceans
 - c. In factories
 - d. Underground
- 5. Why is plastic in the ocean dangerous for marine life?
 - a. It makes the water cleaner
 - b Animals might eat it or get trapped in it
 - c It provides food for animals
 - d It keeps them warm
- 6. What are microplastics?
 - a. Large plastic bottles
 - b. Very small pieces of plastic
 - c. Plastic used for electronics
 - d. A type of biodegradable plastic
- 7. What is one action some countries have taken to reduce plastic pollution?
 - a. Banning single-use plastics
 - b. Making more plastic bags
 - c. Encouraging people to throw plastic in rivers
 - d. Increasing plastic production
- 8. Which of the following is NOT mentioned as a way to reduce plastic waste?
 - a. Using reusable bags
 - b. Recycling plastic
 - c. Planting more trees
 - d. Joining clean-up programs
- 9. Why is recycling important according to the text?
 - a. It makes plastic stronger
 - b. It turns old plastic into new products
 - c. It stops animals from eating plastic
 - d. It removes plastic from the ocean
- 10. In the passage, the word biodegradable most nearly means?
 - a. Able to break down naturally
 - b. Able to be used again
 - c. Able to float on water
 - d. Able to be recycled
- 11. The phrase food chain refers to?
 - a. A store that sells seafood

- b. A natural system of how animals and humans get food
- c. A restaurant menu
- d. A fishing tool
- 12. The term single-use plastics means?
 - a. Plastic items used once and thrown away
 - b. Plastic that can be used many times
 - c. Plastic that is very expensive
 - d. Plastic that is made from plants
- 13. The word ban in the text most likely means?
 - a. To allow something
 - b. To forbid or stop something by law
 - c.To sell something
 - d. To encourage something
- 14. 14. The word environment refers to?
 - a. The natural world around us
 - b. A type of recycling center
 - c. A large factory
 - d. An ocean animal
- 15. The word reduce in the last paragraph means?
 - a. To make smaller or less
 - b. To make more
 - c. To throw away
 - d. To sell
- 16. The phrase future generations refers to?
 - a. People living in the past
 - b. People who will live after us
 - c. People in other countries
 - d. People living today
- 17. We can conclude that plastic pollution is harmful because it?
 - a. Helps animals grow
 - b. Affects both animals and humans
 - c. Makes oceans more beautiful
 - d. Improves the food chain
- 18. If people stop using single-use plastics, it will likely?
 - a. Reduce plastic waste
 - b.Increase microplastics
 - c. Harm the environment
 - d. Make oceans dirtier
- 19. If plastic continues to pollute the ocean, what might happen?
 - a.Marine animals will be healthier
 - b. Humans may eat seafood containing microplastics

- c. Recycling will no longer be needed
- d.Oceans will become safer
- 20. The author most likely wants readers to?
 - a. Use more plastic products
 - b. Ignore the problem of plastic waste
 - c. Take action to reduce plastic pollution
 - d. Stop eating seafood

Answer key

- 1. b . Plastic waste is a problem and we must find ways to reduce it□
- 2. b .Cannot break down naturally□
- 3. c . Hundreds of years \square
- 4. b. Landfills, rivers, and oceans□
- 5. b . Animals might eat it or get trapped in it \square
- 6. b. Very small pieces of plastic□
- 7. a . Banning single use plastics□
- 8. c .Planting more trees□
- 9. b .It turns old plastic into new products□
- 10. a .Able to break down naturally□
- 11. b . A natural system of how animals and humans get food□
- 12. A. Plastic items used once and thrown away□
- 13. b .To forbid or stop something by law□
- 14. a .The natural world around us□
- 15. a .To make smaller or less \square
- 16. b .People who will live after us□
- 17. b . Affects both animals and humans□
- 18. a .Reduce plastic waste□
- 19. b .Humans may eat seafood containing microplastics□
- 20. c . Take action to reduce plastic pollution □

CURRICULUM VITAE



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My name is Desliana, the daughter of Mr. Intodi Tarman Joyo and Mrs. Iliana. I was raised in the village of Bungin Tambun, Padang Guci District, Kaur Regency on November 18, 2002. I am a student of the English Language Education Study Program, Faculty of Teacher Training and Education, Muhammadiyah University of Bengkulu. I started my formal education in 2008 at SDN 02 KAUR. In 2015, I continued my secondary education at SMPN 09 Kaur and graduated in 2018. Then, I continued my senior high school education at SMK Negeri Kaur majoring in TKJ (Computer Engineering and Networking) and graduated in 2021. In 2021, I enrolled in the English Language Education Study Program at Muhammadiyah University of Bengkulu and completed my undergraduate studies in 2025