

Student Worksheet: Wad Comparison

Plastic Wads on the Beach

A shotgun wad holds and separates the shot from powder. When the shotgun is fired the wad is ejected from the barrel into the environment. Wads used to be made of biodegradable materials such as wool, fiber, cork or cardboard. For what reasons is plastic now used?

Read the short description [Shotgun Wads](#) from Virginia Institute of Marine Science (VIMS).

1. Describe the difference between a shotgun *wad* and a shotgun *shell*.
2. What makes retrieval of a used shotgun wad difficult?

Wads used to be made of biodegradable materials such as wool, fiber, cork or cardboard. Watch the video [Plastic vs Fibre Wad](#)* to see a comparison of plastic wads and biodegradable fiber wads.

1. What are the advantages to using fiber wads instead of plastic?
2. What are the advantages to using plastic wads instead of fiber?

Explore the [Plastic Wad Vs Fibre Wad](#) analysis page.

1. What types of data did the experimenter collect to compare the two types of wads?
2. What did the experimenter conclude about the two types of wads? Did one wad perform better than another?

Summarize the costs and benefits of using plastic versus fiber shotgun wads.

*In the United Kingdom, the word is spelled 'fibre', but in the U.S. we spell it 'fiber'.