

9 Fascinating materials of future.

Task 1. Watch video.

<https://youtu.be/az6oYcd-SfU>

Task 2. Choose the correct answer.

1. What makes Aerogels so strong and stable?

- A bunch of mostly liquid molecules working together to act like a solid
- Extremely high temperatures and pressures that blur the lines between liquid and gas
- They are made up of silicon or carbon compounds
- All of the above

2. What do muggle researchers need to experiment with in order to make an invisibility cloak like in "Harry Potter"?

- Light
- Mirrors
- Smoke
- Space age fabrics

3. Which of these futuristic materials is used by NASA?.

- Metallic Glass
- Jello
- Aerogels
- Hair Gel
- A and C

4. True or False: Water droplets bounce off of super-hydrophobic materials?.

- True
- False



5. Hyperdiamonds are _____.

- Diamonds that are very hyperactive
- Formed from crystals that form on the side of space ships jumping through hyper space.
- Made up of many tiny, interlocked diamond crystals
- Not as strong as regular diamonds

6. Aluminum oxynitride is made up of the following chemicals:

- oxygen, aluminum, and iron
- aluminum and nitrous oxide
- nitrogen, oxygen, and aluminum
- hydrogen, oxygen, and aluminum

7. Self-healing concrete works because:.

- Bacteria that survive in extreme conditions without water are mixed in to the concrete and come alive when it breaks and gets wet. They then produce limestone which seals the cracks.
- Billions of tiny insects from the species known as Concretians have been trained to colonize and repair broken concrete.
- Genetically modified ants are fed a diet of limestone and natural glue that they spit onto cracks occurring in concrete in order to heal it and save their colonies.
- None of the above. Nothing survives without food or water for that long. Self-healing concrete is a conspiracy perpetuated by a secret government group that, makes up stories like this, when not promoting standardized testing.

Task 3. Think and answer.

- ✓ Around the 5 minute mark of the video, applications for metallic glass and metallic foam are discussed. Other than what was shared, suggest 2 or 3 ideas of your own where these materials could be used.

