1 st course. Unit 6. Creativity. **Surname Name Group**

Task 1. Match the words (1–8) with their correct meanings (A–H).

1. Innovation
2. Defy
3. Convention
4. Vision
5. Concrete
6. Plausible
7. Abstract
8. Verification

A. Oppose or go against something

B. A clear idea of what something could be in the future

C. Able to be checked or proven true

D. Something that exists in the mind but not as a physical object

E. New ideas or methods

F. Traditional or commonly accepted way of doing something

G. Possible and reasonable

H. Real, specific, or practical

Task 2. Select the best word to complete each sentence.

1. The team's proposal was rejected because it wasn't _____ enough to be implemented.
   a) abstract b) concrete c) conventional
2. Great engineers often _____ the norm by challenging standard designs.
   a) verify b) defy c) justify
3. Before your design is accepted, it must go through a process of _____.
   a) feedback b) convention c) verification
4. His _____ allowed him to imagine what a truly sustainable city could look like.
   a) originality b) vision c) norm
5. The panel praised her _____ thinking as a key strength.
   a) plausible b) innovative c) conventional

LIVEWORKSHEETS

READING.

1. The Bridge That Grows: Engineering with Nature

In the Netherlands, a team of civil and environmental engineers has developed a **"living bridge"** constructed entirely from willow trees. Instead of relying on steel or reinforced concrete, they **strategically plant and weave** young trees so that, over several years, the branches naturally grow together to form a solid, self-supporting structure.

This technique, known as **living architecture** or **biodesign**, merges engineering precision with ecological awareness. As the bridge matures, it strengthens rather than deteriorates — a remarkable contrast to most man-made structures. The project represents a **visionary shift** toward designs that evolve with time and require minimal maintenance, challenging conventional ideas of durability and sustainability.

Choose the correct answer.

1. What makes the "living bridge" unique compared to traditional structures?
   a) It uses high-tech synthetic materials
   b) It is designed for heavy vehicle traffic
   c) It grows stronger over time as trees mature
   d) It can be built within a few weeks

2. What main principle does this design represent?
   a) Rapid construction
   b) Living architecture and ecological design
   c) Reduction of biodiversity
   d) Traditional bridge engineering
3. The project challenges conventional ideas of:
   a) Sustainability and durability
   b) Material cost
   c) Urban planning regulations
   d) Tourism and aesthetics

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Match each phrase with its meaning:

1. *Defy convention*
2. *Merge engineering precision with ecology*
3. *Visionary shift*

a) To combine technical accuracy with environmental awareness

b) To reject traditional ways of doing things

c) A forward-looking change in perspective

2. Roads That Generate Power: Rethinking Urban Infrastructure

In France, engineers have created a **solar road surface** made of durable photovoltaic tiles. These tiles can withstand heavy traffic while converting sunlight into electricity. The system is integrated into existing roads, parking areas, and bicycle paths, demonstrating that **renewable energy systems** can coexist with daily urban functions.

Although early tests revealed challenges in cost and efficiency, the concept has inspired research into **hybrid materials** and **smart grids** that could turn streets into energy-generating networks. The project invites a broader question: can the infrastructure that consumes energy today become a **source of power** tomorrow?

Choose the correct answer.

1. What is the main innovation behind the solar road project?
   a) Reducing car use by 50%
   b) Building separate solar farms next to roads
   c) Using panels that both generate energy and support vehicles
   d) Covering roads with transparent glass
2. The project demonstrates the potential of:
   a) Plastic recycling technologies
   b) Wind power generation
   c) High-speed construction techniques
   d) Hybrid materials and integrated energy systems

LIVEWORKSHEETS

3. What main challenge did early tests reveal?

   a) Difficulty maintaining traction

   b) High costs and lower efficiency

   c) Shortage of engineers

   d) Overproduction of energy

Choose the correct form of the word in brackets.

1. Engineers must find **(plausible / plausibility)** ways to turn theory into practice.
2. The solar road idea is **(vision / visionary)** because it redefines how we view infrastructure.
3. Researchers continue to test the **(concrete / concretely)** limits of this innovation.

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