#### Instructions

### Take a look at the focus words below. Think about what each word means and how it is used. Then answer the questions after each word.

**Remember:** You ***don’t*** have to understand every word in the example sentences.

**Focus words**: material, describe, design, velocity, provide

**I. material**

1. The critical mass is defined to be the amount of fissionable **materia**l that is just large enough to recapture one neutron, on average, for every fission event.
2. One therefore has to be very careful in transferring data on film protectiveness from a pure **material** to an alloyed one.
3. Make sure you understand the **material** in this chapter.
4. Hot hardness is the ability of a **material** to retain its hardness at high temperatures.
5. The choice of **material** and production route will, ultimately, determine the price of the product.
6. This is why **materials** like ceramics and glasses are so brittle.

What do you think the word **material** means? Use a dictionary to help.

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Look at the sentences below. Do you think **material** is being used correctly?

Circle your answer.

1. You will need to study the **material** carefully in order to understand it well.

 yes no

1. **Materials** such as cotton and silk are used a lot in the production of clothes.

 yes no

1. It is difficult to manufacture a **material** that is 100% pure.

 yes no

1. **Material** the product carefully.

 yes no

1. The **material** in the atmosphere contains many different gases.

 yes no

1. Examine the **material** that you buy to make you shirt closely.

 yes no

Write a sentence that uses the word **material**. Use the examples above to guide you.

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**II. describe**

1. Draw an appropriate picture, and **describe** the basic idea of Newton's Method without using any formulas.
2. The vector field in part (a) might **describe** the velocity of the current in a stream at various depths.
3. To **describe** these situations, we need to generalize the concept of a graph.
4. Find the space angles that **describe** the direction of the force vector.
5. **Describe** how a very precise measurement can be inaccurate.
6. Chapters 5 and 6 **describe** the design of new databases.

What do you think the word **describe** means? Use a dictionary to help.

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Look at the sentences below. Do you think **describe** is being used correctly?

Circle your answer.

1. This method is often used to **describe** how gravity affects a falling object.

 yes no

1. Draw a diagram to **describe** the process.

 yes no

1. You can **describe** the book at the library on the 5th floor.

 yes no

1. Measure the volume carefully and **describe** the color of the liquid in your notes.

 yes no

1. The program can be used to **describe** algorithms into the correct order.

 yes no

1. This chapter will **describe** how we can use Euler’s work to solve these equations.

 yes no

Write a sentence that uses the word **describe**. Use the examples above to guide you.

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**III. design**

1. As we have said already, they are suitable only for the first step of the **design** project.
2. However, the **design** was revised at a late stage because it was felt that it would be difficult and expensive to make.
3. Then the final **design** of the advertisement, integrating words and pictures, is put together.
4. The **design** of modern parachutes is based on aerodynamic concepts to improve maneuverability.
5. The **design** of a programming language is shaped by the success and failure of earlier **designs.**
6. This type of line linkage analysis permits routing **design** and analysis.
7. A robust **design** is one in which the product's function and performance are relatively insensitive to variations in **design** and manufacturing

What do you think the word **design** means? Use a dictionary to help.

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What part of speech is **design**?

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Look at the sentences below. Do you think **design** is being used correctly?

Circle your answer.

1. In this project, you will need to **design** a process that will improve the production of vegetable oil.

 yes no

1. Civil engineers **design** anything from bridges to buildings.

 yes no

1. The **design** of the circuit was not very good because it became too hot after only a few minutes.

 yes no

1. The Earth’s atmosphere **designs** many storms each year.

 yes no

1. Can you help me **design** my homework because I don’t understand how to find the solution?

 yes no

1. The **design** was changed many times during the project.

 yes no

Write a sentence that uses the word **design**. Use the examples above to guide you.

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**IV. velocity**

1. At low Reynolds numbers the coefficient of **velocity** may be quite small.
2. The most common flow measurements are pressure, rate of flow, and **velocity**.
3. The water from the outlet discharges into the atmosphere with a **velocity** of 50 m/s.
4. The inlet air **velocity** is vi = velocity is v, = 480 m/s.
5. The particle need not necessarily be moving with constant **velocity**.
6. What is the **velocity** of a ball in miles per hour after an 800-ft drop (88 ft/s =60 mi/h)?

What do you think the word **velocity** means? Use a dictionary to help.

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Look at the sentences below. Do you think **velocity** is being used correctly?

Circle your answer.

1. What is the **velocity** of the satellite after 15 seconds of acceleration?

 yes no

1. The **velocity** and pressure are two important factors in the equation.

 yes no

1. What if we **velocity** the object before we start?

 yes no

1. The particle will move at a constant **velocity**.

 yes no

1. The **velocity** air is one thing that you must consider in your calculations.

 yes no

1. **Velocity** is not the same thing as speed in physics.

 yes no

Write a sentence that uses the word **velocity**. Use the examples above to guide you.

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**V. provide**

1. Its purpose is to **provide** a link between control volume ideas and system ideas.
2. These programs can work with the stored coordinates to **provide** a variety of possible designs.
3. Write a function that can be used to **provide** the position and velocity of the ball at any time t.
4. These assumptions, together with the application of physical laws, **provide** the mathematical model.
5. You will have to decide what additional controls and what display to **provide** for the users of the elevator.
6. In this chapter, we will **provide** an introduction to the differential equations that describe in detail the motion of fluids.

What do you think the word **provide** means? Use a dictionary to help.

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Look at the sentences below. Do you think **provide** is being used correctly?

Circle your answer.

1. The book will **provide** the vocabulary that you need.

 yes no

1. The program works to **provide** easy control of the graphics.

 yes no

1. Go to the store and **provide** some rice and bread.

 yes no

1. **Provide** the water bottle with water because it is empty.

 yes no

1. The teacher will decide what to do and **provide** the equipment for the project.

 yes no

1. I can’t help you, but the doctor can **provide** the information that you need.

 yes no

Write a sentence that uses the word **provide**. Use the examples above to guide you.

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**VII.** Choose **three** of the focus words and use them in a short paragraph.

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**VIII.** Look at the example sentences. What words come before and after each of the focus words?Put each word in a suitable category.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| before the focus word | material | describe | design | velocity | provide |
| noun |  |  |  |  |  |
| verb |  |  |  |  |  |
| preposition |  |  |  | **of** |  |
| article |  |  |  |  |  |
| other word types |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| after the focus word | material | describe | design | velocity | provide |
| noun |  |  |  |  |  |
| verb |  |  |  |  |  |
| preposition |  |  |  |  |  |
| other word types |  |  |  | **may** |  |

**Are there any patterns that you notice?** *Click here to see more examples of the focus words in use.*

**What does the pattern tell you about how the focus word is used?**

**IX.** Do the focus words have any other parts of speech? Complete the table. Not all focus words have all parts of speech that are shown in the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **part of speech** | **material** | **describe** | **design** | **velocity** | **provide** |
| noun |  |  |  |  |  |
| verb | materialize |  |  |  |  |
| adjective |  |  |  |  |  |
| adverb |  |  |  |  |  |