# Assessment Questions for World of Lasers

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| Question #: 1 |  |
| Text of question: | 1. Which of these wavelength ranges can be seen? |
| Potential Answer A | Text of Answer | Longer than 780nm |
| Is Correct (Yes/No) | No |
| Feedback Message | Wrong. Wavelengths longer than 780nm are invisible to the human eyes. |
| **Potential Answer B** | **Text of Answer** | **380nm to 780nm** |
|  | **Is Correct (Yes/No)** | **Yes** |
|  | **Feedback Message** | **That’s the correct answer! Well done!** |
| Potential Answer C | Text of Answer | Shorter than 380nm |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong. Wavelengths shorter than 380nm are invisible to the human eyes. |
| Potential Answer D | Text of Answer | None of the above |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong. Wavelengths between 380nm and 780nm are visible to the human eyes. |

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| Question #: 2 |  |
| Text of question: | 2. Who built the first laser? |
| Potential Answer A | Text of Answer | Charles Townes |
| Is Correct (Yes/No) | No |
| Feedback Message | Wrong. |
| Potential Answer B | Text of Answer | Arthur Chawlow |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.  |
| **Potential Answer C** | **Text of Answer** | **Theodore Maiman** |
|  | **Is Correct (Yes/No)** | **Yes** |
|  | **Feedback Message** | **That’s the correct answer! Well done!** |
| Potential Answer D | Text of Answer | None of the above |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.  |

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| Question #: 3 |  |
| Text of question: | 3. Choose the correct alternative |
| Potential Answer A | Text of Answer | The white light contains all the light rays with the same wavelengths |
| Is Correct (Yes/No) | No |
| Feedback Message | Wrong.  |
| **Potential Answer B** | **Text of Answer** | **Laser contains all light rays with the same wavelengths** |
|  | **Is Correct (Yes/No)** | **Yes** |
|  | **Feedback Message** | **That’s the correct answer! Well done!** |
| Potential Answer C | Text of Answer | The “white” light contains some the light rays with the same wavelengths. |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.  |
| Potential Answer D | Text of Answer | Laser contains different wavelength for each light rays |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.  |

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| Question #: 4 |  |
| Text of question: | 4. Choose the **correct** alternative. |
| Potential Answer A | Text of Answer | A laser is not a concentrated light beam. |
| Is Correct (Yes/No) | No |
| Feedback Message | Wrong. A laser is a concentrated light beam. |
| Potential Answer B | Text of Answer | A red laser is composed by only a long crystal made of ruby. |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong. A red laser is not composed by only a long crystal made of ruby. Besides, it contains a flash tube wrapped around the crystal. |
| Potential Answer C | Text of Answer | All the light rays of a laser have a different wavelength. |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong. All the light rays of a laser have the same wavelength. |
| **Potential Answer D** | **Text of Answer** | **None of the above** |
|  | **Is Correct (Yes/No)** | **Yes** |
|  | **Feedback Message** | **That’s the correct answer! Well done!** |

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| Question #: 5 |  |
| Text of question: | 5. Concerning the steps to make laser light, choose the **incorrect** alternative. |
| Potential Answer A | Text of Answer | The escaping photons form a very concentrated beam of powerful laser light. |
| Is Correct (Yes/No) | No |
| Feedback Message | Wrong. This statement is true. |
| Potential Answer B | Text of Answer | A high-voltage electric supply makes the tube flash on and off. |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.This statement is true. |
| Potential Answer C | Text of Answer | A mirror at one end of the laser tube keeps the photons bouncing back and forth inside the crystal. |
|  | Is Correct (Yes/No) | No |
|  | Feedback Message | Wrong.This statement is true. |
| **Potential Answer D** | **Text of Answer** | **A partial mirror at the other end of the tube bounces some photons back into the crystal with no escape.**  |
|  | **Is Correct (Yes/No)** | **Yes** |
|  | **Feedback Message** | **That’s the correct answer! Well done! This statement is false since in the tube bounce process some photons scape.** |