Практическое занятие № 6

Тема: Станки. (Machine-tools)
Цель: активизировать лексику по теме в разных видах деятельности: чтение, аудирование, говорение.

Ход занятия:

1. **Изучите лексику для обязательного усвоения (Glancing at Vocabulary**):

workpiece - деталь
facility - приспособление
to allow - позволять
relative - относительно
to lubricate - смазывать
fasten - прикреплять
(to) screw – винт, привинчивать
thread – резьба, нарезка
discharge – электр.разряд
(to) feed (fed,fed) – подавать, подача
lathe – токарный станок
range – ассортимент, диапазон
flexible- гибкий
sharp - острый
friction - трение
outside – наружный, снаружи
inside - внутри
to remove – удалять, перемещать
to mount - закреплять
to require - требовать
to enable – давать возможность
(close) tolerance – (жесткий) допуск
wheel – колесо, круг

2. Выполните задания:

Задание 1. Переведите предложения:

1. Machine tools have facilities for holding a workpiece and a tool.
2. All moving parts in mechanisms are lubricated.
3. Some parts can be fastened to the table with screws.
4. Lathes are used to produce circular parts.
5. Cutting edges of tools are sharp.
6. Bolts have thread on the outside and nuts have inside.
7. The workpiece is mounted on a table that controls the feed.
8. Machine tools enable mass production of parts.
9. Grinding wheels may have different grain size.

Задание 2. Соотнесите слова:

1. Facility a. Винт
2. Feed b. Внутри
3. Flexible c. Гибкий
4. Friction d. Диапазон
5. Inside e. Допуск
6. Outside f. Закреплять
7. Range g. Колесо
8. Screw h. удалять
9. Sharp i. Острый
10. Thread j. Подача
11. To allow k. Позволять
12. To lubricate l. Приспособление
13. To mount m. Резьба
14. To remove n. Смазывать
15. To reguire o. Снаружи
16. Wheel p. Требовать

17. Tolerance q. Трение

Задание 3. Прочитайте и переведите текст « MACHINE-TOOLS»:

Machine-tools are used to shape metals and other materials. The material to be shaped is called the workpiece. Most machine-tools are now electrically driven. Machine-tools with electrical drive are faster and more accurate than hand tools: they were an important element in the development of mass-production processes, as they allowed individual parts to be made in large numbers so as to be interchangeable.

All machine-tools have facilities for holding both the workpiece and the tool, and for accurately controlling the movement of the cutting tool relatively to the workpiece. Most machining operations generate large amounts of heat, and cooling fluids (usually a mixture of water and oils) must be used for cooling and librication.

Machine-tools usually work materials mechanically but other machining methods have been developed lately. They include chemical machining, spark erosion to machine very hard materials to any shape by means of a continuous high-voltage spark (discharge) between an electrode and a workpiece. Other machining methods include drilling using ultrasound, and cutting by means of a laser beam. Numerical control of machine-tools and flexible manufacturing systems have made it possible for complete systems of machine-tools to be used flexibly for the manufacture of a range of products.

Дополнительный словарь:
Electrically driven – с электроприводом
Fluid - жидкость
Spark erosion – электроискровая обработка
By means of – посредством
beam - луч
drilling - сверление

Задание 4. Ответьте письменно на вопросы**:**

1. What are machine-tools used for?
2. How are most machine-tools driven nowadays?
3. What facilities have all machine-tools?
4. How are the cutting tool and the workpiece cooled during machining?
5. What other machining methods have been developed lately?
6. What systems are used now for the manufacture of a range of products without the use of manual labour?

3. Контрольные вопросы:

1. What are machine-tools used for? (Для чего используются станки?)
2. What machining methods have been developed lately? (Какие методы обработки станками разработаны в последнее время?)