

SCIENCE & SPACE

In questa scheda scoprirai tante parole ed espressioni in inglese per parlare di scienza e spazio. Farai diversi giochi ed esercizi: riconoscerai gli strumenti di laboratorio, risolverai piccoli problemi, seguirai una missione spaziale e userai le nuove parole per spiegare alcuni fenomeni scientifici.

QUICK GUIDE / RIPASSO VELOCE

SCIENTIFIC RESEARCH / RICERCA SCIENTIFICA

experiment = esperimento; **hypothesis** = ipotesi; **evidence** = prova / evidenza; **research** = ricerca; **result** = risultato; **sample** = campione; **observe** = osservare; **measure** = misurare.

Scientists conducted an experiment to test their hypothesis.

Useful combinations: conduct an experiment • test a hypothesis • collect evidence • analyse the results • carry out research

LAB EQUIPMENT / STRUMENTI DI LABORATORIO

microscope = microscopio; **thermometer** = termometro; **balance** = bilancia; **test tube** = provetta; **beaker** = becher; **measuring cylinder** = cilindro graduato; **safety goggles** = occhiali protettivi; **dropper** = contagocce.

Use a thermometer to measure the temperature of the liquid.

Useful combinations: use a microscope • measure the temperature • weigh a sample • wear safety goggles

SPACE & ASTRONOMY / SPAZIO E ASTRONOMIA

planet = pianeta; **orbit** = orbita / orbitare; **astronaut** = astronauta; **satellite** = satellite; **spacecraft** = veicolo spaziale; **telescope** = telescopio; **gravity** = gravità; **atmosphere** = atmosfera.

The spacecraft is now in orbit around the planet.

Useful combinations: orbit a planet • explore space • observe a distant star • enter orbit • experience zero gravity

SPACE EXPLORATION / ESPLORAZIONE SPAZIALE

launch = lanciare / lancio; **mission** = missione; **crew** = equipaggio; **surface** = superficie; **land** = atterrare; **take off** = decollare; **space station** = stazione spaziale; **solar system** = sistema solare.

The spacecraft will land on the planet's surface.

Useful combinations: launch a spacecraft • launch a mission • land on the surface • return to Earth • explore the solar system

RICORDA: impara le parole anche nelle espressioni in cui vengono usate naturalmente, per esempio **test a hypothesis**, **collect evidence**, **measure the temperature**, **launch a spacecraft**.

1 Science Lab / Il laboratorio scientifico

| Guarda le immagini e scrivi sotto ogni oggetto il nome corretto.

Word bank

beaker

balance

microscope

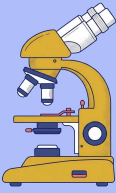
thermometer

test tube

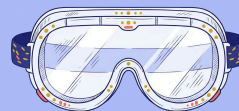
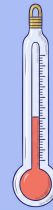
measuring cylinder

safety goggles

dropper



microscope ✓



2 Cause & Effect / Ogni effetto ha la sua causa

| Collega con una freccia ogni causa alla sua conseguenza corretta.

CAUSES

A. A plant does not get enough sunlight.

B. A liquid is heated to its boiling point.

C. Water is cooled below 0°C.

D. A metal object is heated.

E. An astronaut is on a planet with very low gravity.

F. A force pushes an object that is at rest.

EFFECTS

• 1. The object starts to move.

• 2. The plant grows more slowly.

• 3. The metal expands.

• 4. The astronaut weighs less.

• 5. The liquid begins to evaporate rapidly.

• 6. The water freezes.



3 Space Mission / Missione spaziale

| Leggi ogni situazione e scegli la parola giusta.

Example

The scientists want to take detailed images of a very distant galaxy.

☒ **telescope** ☐ rover ☐ spacesuit

1. The team wants to explore the surface of Mars and collect information about its rocks without sending an astronaut outside the spacecraft.
☐ satellite ☐ rover ☐ space station
2. The mission needs to send equipment and astronauts from Earth into space.
☐ telescope ☐ spacecraft ☐ rover
3. Scientists want to send information about weather conditions on Earth from space.
☐ satellite ☐ spacesuit ☐ telescope
4. An astronaut needs protection while working outside the spacecraft.
☐ space station ☐ satellite ☐ spacesuit
5. A group of astronauts needs a place where they can live and work in orbit for several months.
☐ rover ☐ space station ☐ telescope
6. The spacecraft is ready to leave Earth and begin its journey into space. What should the mission team do first?
☐ It should land. ☐ It should enter orbit.
☐ It should launch.

4

Science Detective / Investigatore scientifico

Leggi gli indizi e scopri a che cosa si riferiscono. Scegli la risposta fra quelle proposte qui sotto

Word bank

atmosphere

gravity

hypothesis

evidence

microscope

orbit

telescope

Example

I am the layer of gases surrounding a planet. I can protect life and affect the temperature on its surface.

→ **atmosphere** ✓

1.

Scientists cannot see me directly, but they use observations and experiments to test me. I am a possible explanation for something they want to investigate.

2.

I am the force that attracts objects towards a planet or other large object. Without me, you would not stay on the ground.

3.

Scientists use me to support or reject an idea after collecting information from an investigation.

4.

I am the path followed by a planet, moon or satellite as it moves around another object in space.

5.

Scientists use me to see objects that are too small to observe clearly with the naked eye.

6.

Astronomers use me to observe distant stars and planets.

5 Explain the Science / Spiega la scienza

Scegli uno dei tre argomenti. Usa le parole fornite per creare delle frasi che rispondano alla domanda e spieghino il fenomeno.

A. Why does a plant need sunlight?

Word bank:

sunlight

energy

photosynthesis

leaves

grow

B. How does a spacecraft land on a planet?

Word bank:

spacecraft

atmosphere

gravity

surface

land

C. How does a thermometer work?

Word bank:

temperature

measure

liquid

heat

scale

Example – A. Why does a plant need sunlight?

A plant needs sunlight because it provides energy. The process that plants use to make food is called photosynthesis. It happens mainly in the leaves. Without enough sunlight, a plant cannot grow properly.

Now choose A, B or C and complete your own explanation.

My choice: _____

My explanation: _____



SOLUZIONI

1 Activity 1



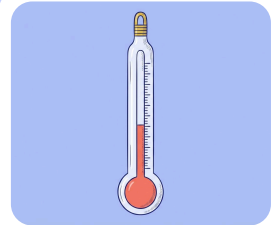
microscope



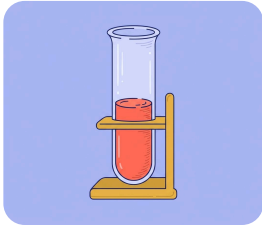
beaker



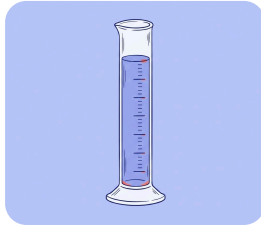
balance



thermometer



test tube



measuring
cylinder



safety goggles



dropper

2 Activity 2

A-2; B-5; C-6; D-3; E-4; F-1.

3 Activity 3

1 rover; 2 spacecraft; 3 satellite; 4 spacesuit; 5 space station;
6 launch.

4 Activity 4

1 hypothesis; 2 gravity; 3 evidence; 4 orbit; 5 microscope;
6 telescope.