

Name and surname:

Date:

Group:

1.- *Reading and comprehension: Our Solar System*

From our small world we have gazed upon the cosmic ocean for thousands of years. Ancient astronomers observed points of light that appeared to move among the stars. They called these objects planets, meaning wanderers, and named them after Roman deities: Jupiter, king of the gods; Mars, the god of war; Mercury, messenger of the gods; Venus, the goddess of love and beauty, and Saturn, father of Jupiter and god of agriculture. The ancient astronomers (stargazers) also observed comets with sparkling tails, and meteors or shooting stars apparently falling from the sky.

Since the invention of the telescope, three more planets have been discovered in our solar system: Uranus (1781), Neptune (1846), and Pluto (1930). Pluto was reclassified as a dwarf planet in 2006. In addition, our solar system is populated by thousands of small bodies such as asteroids and comets. Most of the asteroids orbit in a region between the orbits of Mars and Jupiter, while the home of comets lies far beyond the orbit of Pluto, in the Oort Cloud.

The four planets closest to the Sun (Mercury, Venus, Earth, and Mars) are called the terrestrial planets because they have solid rocky surfaces. The four large planets beyond the orbit of Mars (Jupiter, Saturn, Uranus, and Neptune) are called gas giants. Tiny and distant, Pluto has a solid but icier surface than the terrestrial planets.

There are 144 known natural satellites (also called moons) in orbit around the planets in our solar system. Many of these were discovered by planetary spacecraft. There are currently 22 recently discovered moons awaiting final approval before being added to our solar system's moon count.

Ancient astronomers believed that the Earth was the center of the Universe, and that the Sun and all the other stars revolved around the Earth. Copernicus proved that Earth and the other planets in our solar system orbit our Sun.

2.- *Memorise these facts:*

- 1) A planet is a celestial body orbiting a star.
- 2) The planets were originally seen as emissaries of the gods.
- 3) With the development of the telescope, the planets, which now included Earth, were found to orbit the Sun.
- 4) There are eight planets in the Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn; Uranus and Neptune.
- 5) There are at least three dwarf planets: Ceres, Pluto and Eris.

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1.- Activity: Comparison of Mars and Earth

	Mars	Earth
Atmosphere (composition)	Carbon dioxide (95.32%) Nitrogen (2.7%) Argon (1.6%) Oxygen (0.13%) Water vapor (0.03%) Nitric oxide (0.01%)	Nitrogen (77%) Oxygen (21%) Argon (1%) Carbon dioxide (0.038%)
Atmosphere (pressure)	7.5 millibars (average)	1.013 millibars (at sea level)
Gravity	0.375 that of Earth	1
Surface Temperature (average)	-63°C	14°C
Satellites	2 (Phobos and Deimos)	1 (Moon)
Distance from Sun (average)	227.936.637 km	149.597.891 km
Equatorial Radius	3.397 km	6.378 km
Length of Day	24 hours, 37 minutes	24 hours
Length of Year	687 Earth days	365 days
Deepest Canyon	Valles Marineris 7 km deep	Grand Canyon 1.8 km deep
Largest Volcano	Olympus Mons 26 km high	Mauna Loa (Hawaii) 4 km high

Mars / Earth Comparison Table

Mars is only about one-half the diameter of Earth, but both planets have roughly the same amount of dry land surface area. This is because over two-thirds of Earth's surface is covered by oceans, whereas the present surface of Mars has no liquid water. Mars and Earth are very different planets when it comes to temperature, size, and atmosphere, but geologic processes on the two planets are surprisingly similar.

1.1.- Draw two diagrams (graphic bars) to illustrate the composition of the atmosphere of Mars and of Earth.

1.2.- Identify and complete the diagrams of the next sheet.

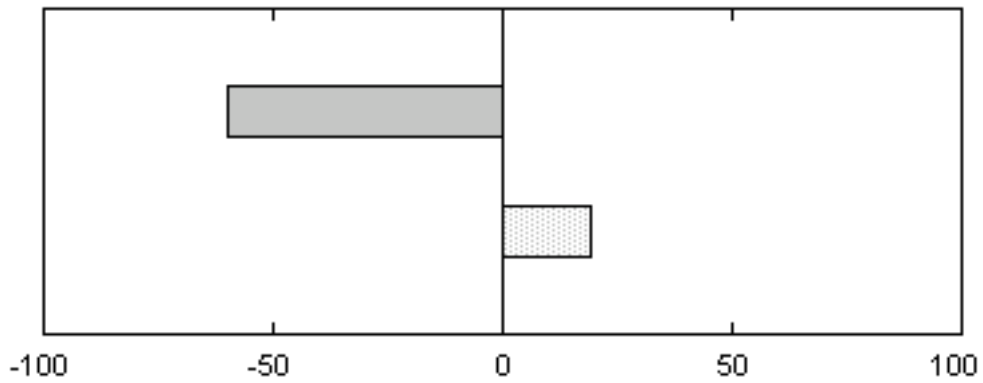
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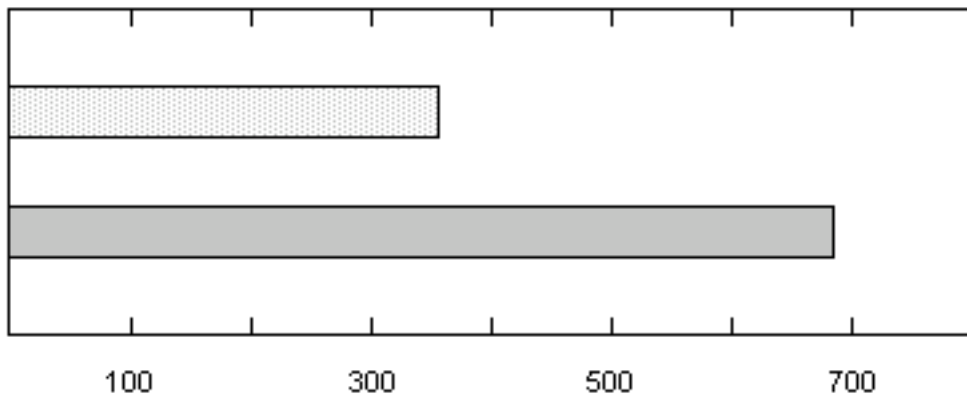
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1.- Activity: Comparison of Mars and Earth

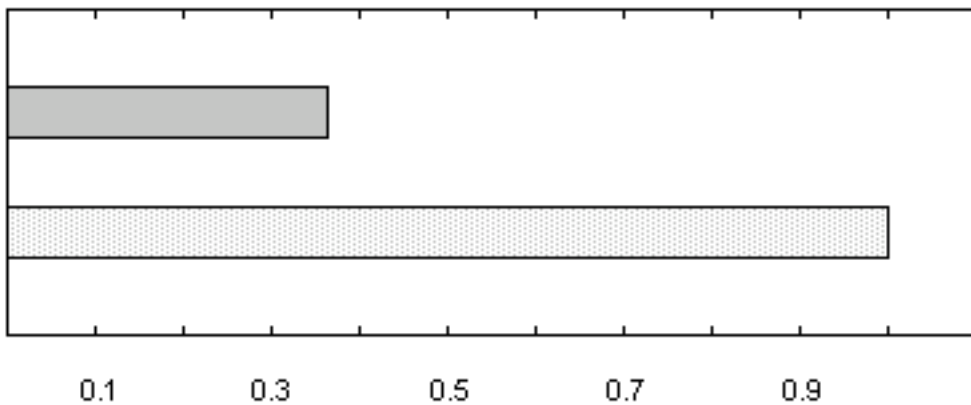
1) title



2) title



3) title

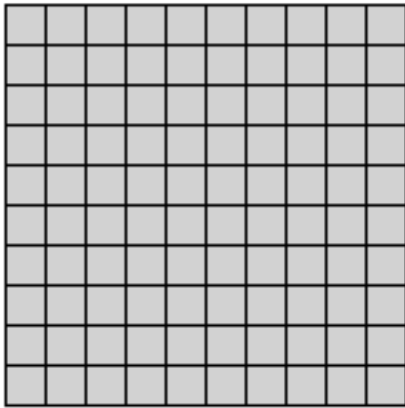


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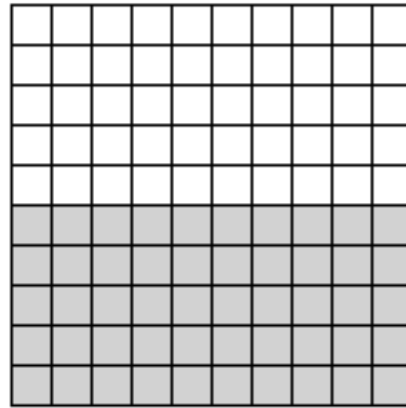
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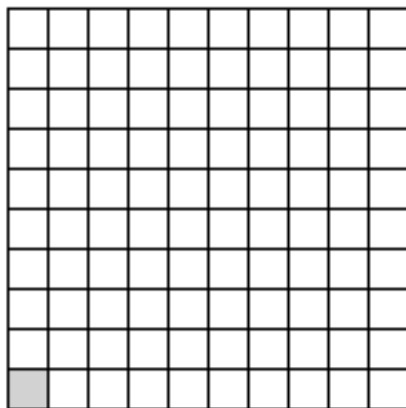
Appendix 1: Help for understanding percentages



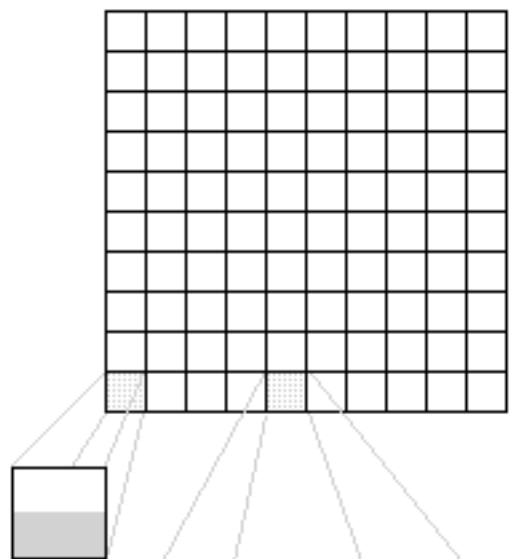
100 squares of 100 = 100%



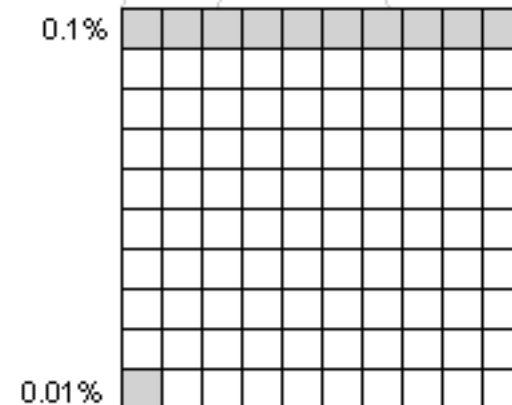
50 squares of 100 = 50%



1 square of 100 = 1%



half square of 100 = 0.5%



0.1%

0.01%

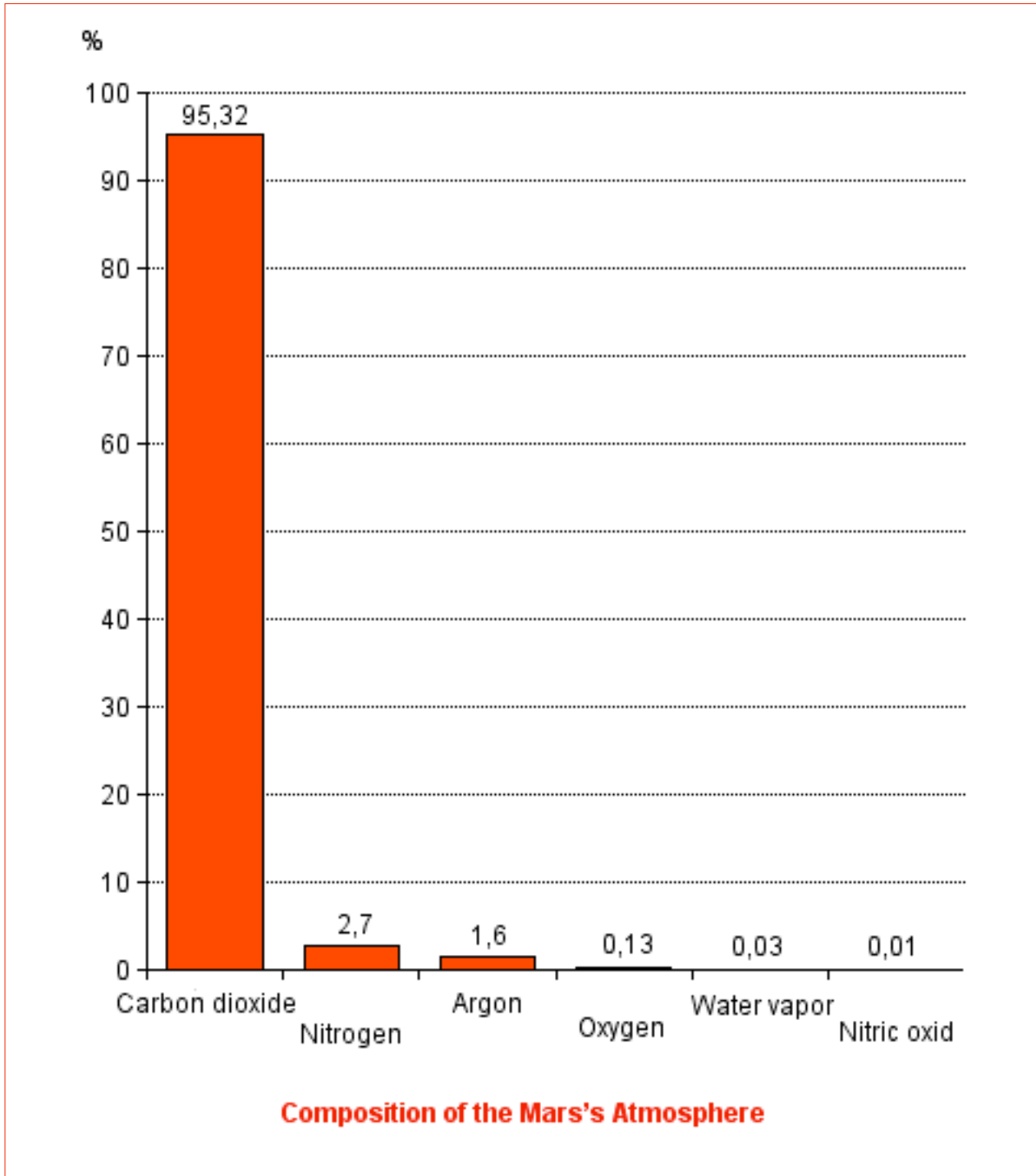
Name and surname:

Date:

Group:

1.- Activity: **Comparison of Mars and Earth - Solutions -**

1.1.- Draw two diagrams (graphic bars) to illustrate the composition of the atmosphere of Mars and of Earth.

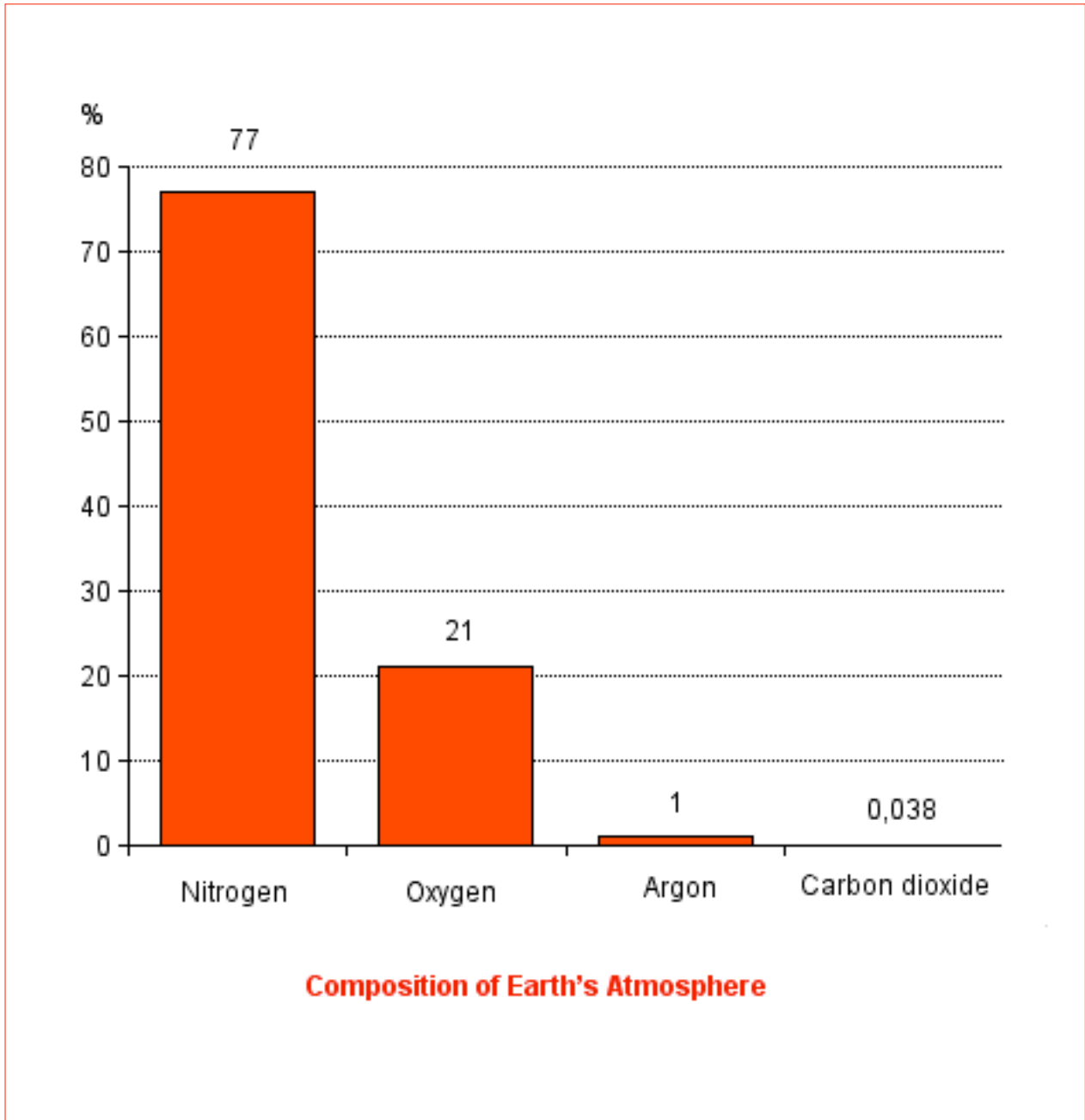


Name and surname:

Date:

Group:

1.- Activity: **Comparison of Mars and Earth - Solutions -**



1.2.- Identify and complete the diagrams of the next sheet.

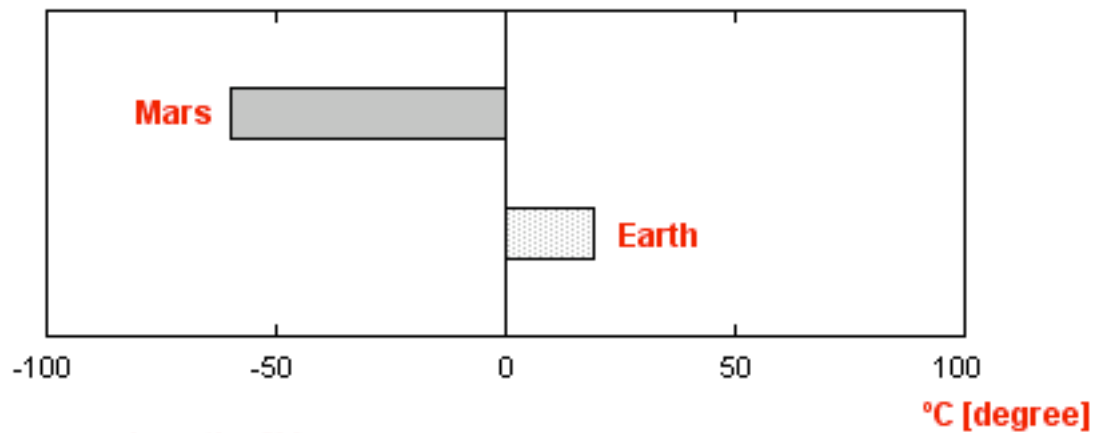
Name and surname:

Date:

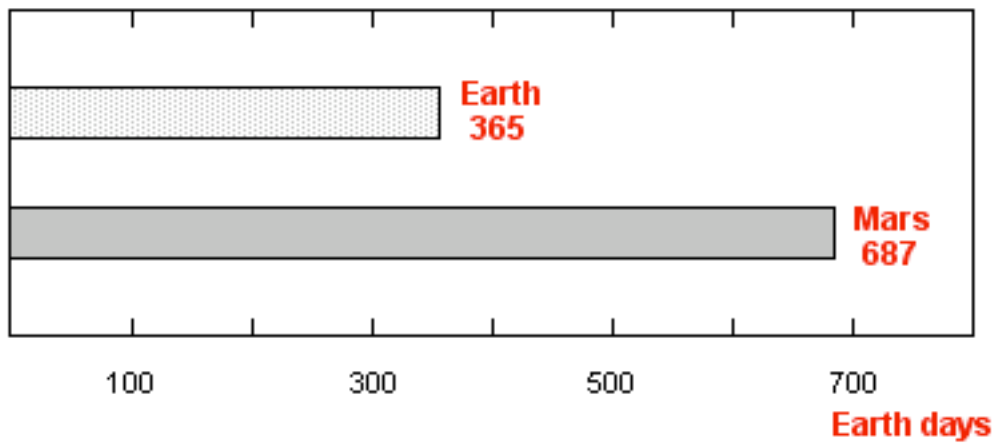
Group:

1.2.- Identify and complete the diagrams of the next sheet. - *Continuation* - **Solutions** -

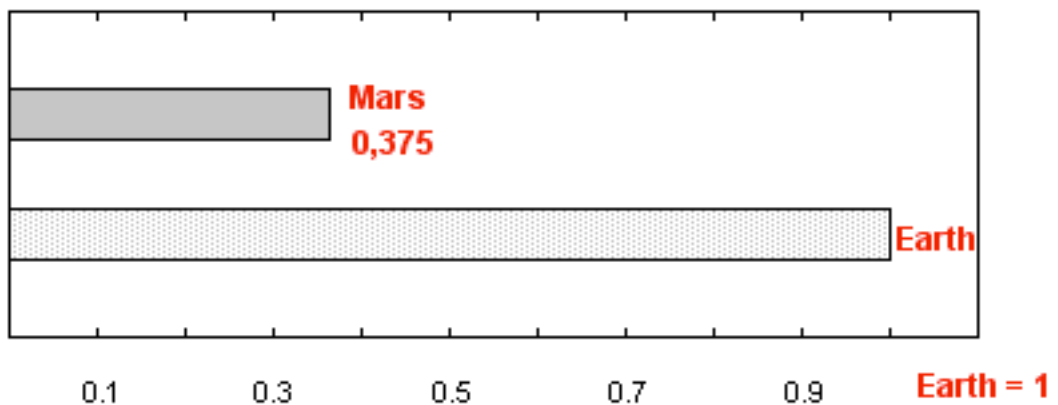
1) title Surface Temperature (average)



2) title Length of Year



3) title Gravity



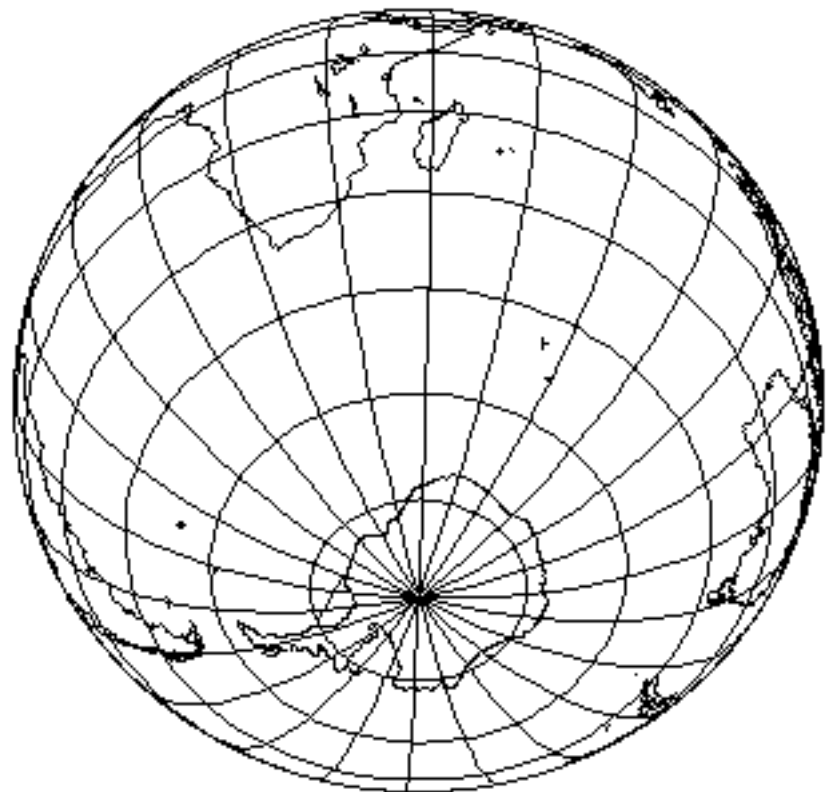
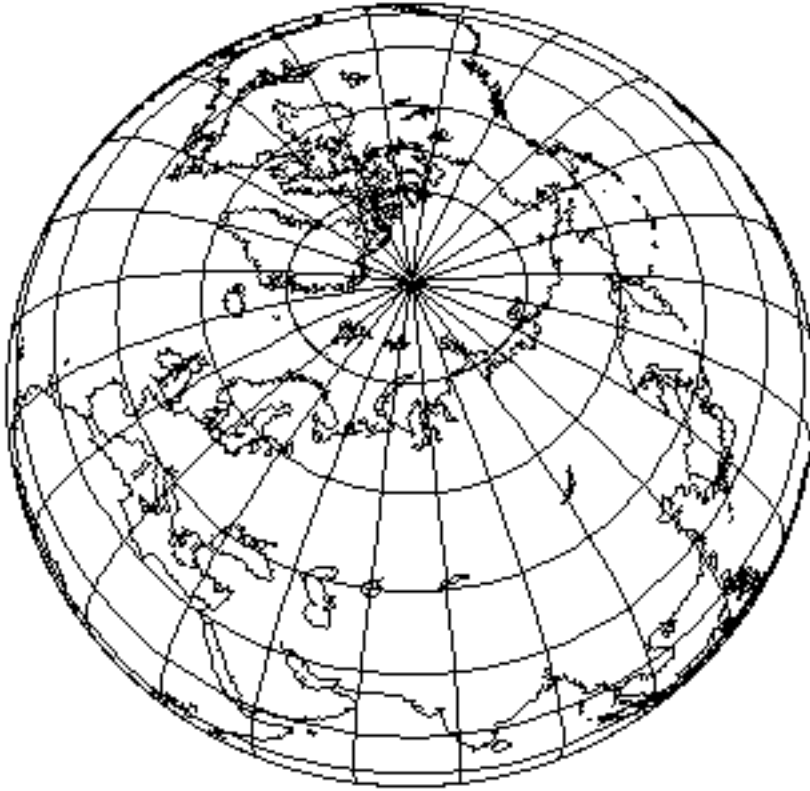
Name and surname:

Date:

Group:

1.- Complete the two diagrams of the globe with the next items:

- 1) North pole
- 2) South pole
- 3) The meridian of Greenwich
- 4) Equator
- 5) One parallel of the northern hemisphere
- 6) One meridian of the eastern hemisphere
- 7) One meridian of the western hemisphere
- 8) One parallel of the meridional hemisphere



Name and surname:

Date:

Group:

2.- Retrace the reference meridian or 0 (The meridian of Greenwich) of the attached drawing with a felt-tip pen or a coloured pencil:

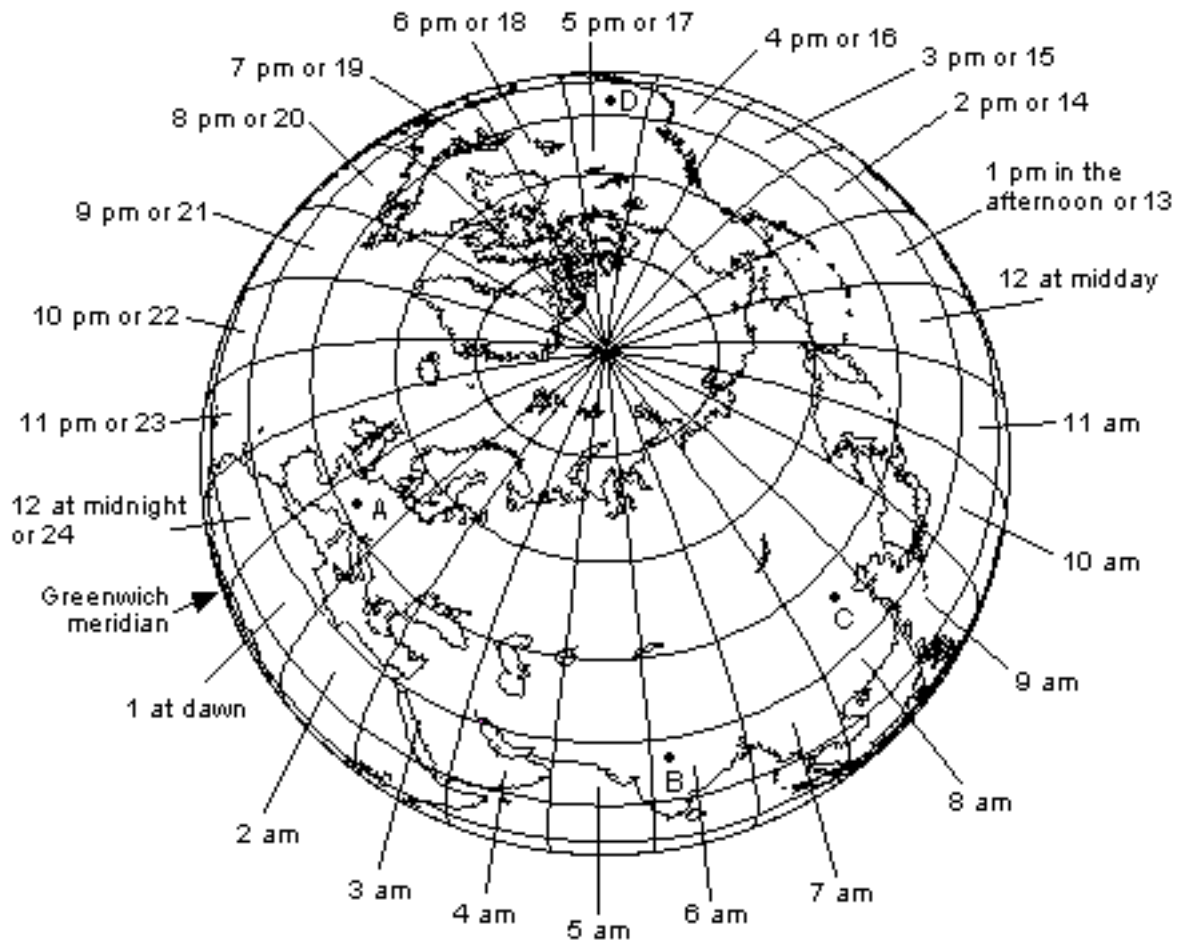


Diagram time zones

3.- Notice that there are meridians and also some parallels in the north hemisphere: 15° [degree], 30°, 45°, 60° and 75°N drawn in the diagram. Retrace the parallels 30°N and 60°N with a second felt-tip pen or a coloured pencil.

4.- There are four cities pointed out in the graph (diagram): Bern (A), New Delhi (B), Peking [Beijing] (C) and Las Vegas (D). If the meridians delimit the hourly zones, from the time zones graph, work out:

- 1) what time is it in Bern when in New Delhi they it's 15 hours (3 pm)?
- 2) what time is it in Peking when in Bern it's 17 hours (5 pm)?
- 3) what time is it in New Delhi when in Bern it's 23 hours (11 pm)?
- 4) what time is it in Peking when in Las Vegas it's 13 hours (1 pm)?
- 5) what time is it in Las Vegas when in Bern it's 9 in the morning?
- 6) what time is it in Las Vegas when in Bern it's 19 hours (7 pm)?
- 7) what time is it in Bern when in Peking it's 21 hours (9 pm)?
- 8) what time is it in New Delhi when in Las Vegas it's 23 hours (11 pm)?

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1.- A little dictionary:

1.1) *Some words:*

Spring, Summer, Autumn, Winter (*Temperate seasons*) - Meteorology - Storm - Snow - Rain

1.2) *And some definitions:*

- 1) Season of the year in which vegetation begins.
- 2) It's condensed moisture (*liquid in the form of vapour*) of the atmosphere falling in separate drops.
- 3) The warmest season of the year in countries outside the tropics.
- 4) Science of the weather study of the earth's atmosphere and its changes.
- 5) Third season of the year, between summer and winter.
- 6) Occasion of violent weather conditions.
- 7) Season between autumn and spring.
- 8) Frozen vapour falling from the sky in soft, white flakes.

To match the words with the definitions! Answers:

- 1) 2) 3) 4)
 5) 6) 7) 8)

2.- The following table shows the mean monthly temperatures for Barcelona, Delhi and London:

Month	Mean monthly temperature (°C)		
	Barcelona	Delhi	London
January	10	14	4
February	11	17	4
March	12	23	6
April	15	30	9
May	18	33	13
June	22	33	16
July	24	30	18
August	24	29	18
September	22	29	15
October	18	26	11
November	14	20	6
December	10	16	5

Draw a graph of the mean monthly temperature with all sets of figures on the same axes. Use the horizontal axis for the months, and the vertical axis for the temperatures.

Name and surname:

Date:

Group:

5.- The next table is a calendar of last four months of year 2008.

5.1.- Separate in the calendar the months (September, October, November, December)

5.2.- Write the name of the days of the week.

5.3.- Compare with the [Lunar Calendar](#) and note circles down the days of full moon and new moon.

<i>Days of the week</i>							
<i>Months</i>	.....	.....	.....	.....	.....	.....
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

Lunar Calendar 2008

The Calendar shows the moon phases of the according year.

● = Full moon ● = New moon ☾ = Waxing moon, crescent ☽ = Waning moon, crescent

Show other year: < [Lunar calendar 2007](#) [Lunar calendar 2009](#) >

January	February	March	April	May	June
Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su
1 1 2 3 4 5 6	5 1 2 3	9 1 2	14 1 2 3 4 5 ●	18 1 2 3 4	22 1
2 7 ● 9 10 11 12 13	6 4 5 6 ● 8 9 10	10 3 4 5 6 ● 8 9	15 7 8 9 10 11 ☾ 13	19 ● 6 7 8 9 10 11	23 2 ● 4 5 6 7 8
3 14 ☾ 16 17 18 19 20	7 11 12 13 ☾ 15 16 17	11 10 11 12 13 ☾ 15 16	16 14 15 16 17 18 19 ●	20 ☾ 13 14 15 16 17 18	24 9 ☾ 11 12 13 14 15
4 21 ● 23 24 25 26 27	8 18 19 20 ● 22 23 24	12 17 18 19 20 ● 22 23	17 21 22 23 24 25 26 27	21 19 ● 21 22 23 24 25	25 16 17 ● 19 20 21 22
5 28 29 ☽ 31	9 25 26 27 28 ☽	13 24 25 26 27 28 ☽ 30	18 ☽ 29 30	22 26 27 ☽ 29 30 31	26 23 24 25 ☽ 27 28 29
		14 31			27 30

July	August	September	October	November	December
Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su	Mo Tu We Th Fr Sa Su
27 1 2 ● 4 5 6	31 ● 2 3	36 1 2 3 4 5 6 ☾	40 1 2 3 4 5	44 1 2	49 1 2 3 4 ☾ 6 7
28 7 8 9 ☾ 11 12 13	32 4 5 6 7 ☾ 9 10	37 8 9 10 11 12 13 14	41 6 ☾ 8 9 10 11 12	45 3 4 5 ☾ 7 8 9	50 8 9 10 11 ● 13 14
29 14 15 16 17 ● 19 20	33 11 12 13 14 15 ● 17	38 ● 16 17 18 19 20 21	42 13 ● 15 16 17 18 19	46 10 11 12 ● 14 15 16	51 15 16 17 18 ☽ 20 21
30 21 22 23 24 ☽ 26 27	34 18 19 20 21 22 ☽ 24	39 ☽ 23 24 25 26 27 28	43 20 ☽ 22 23 24 25 26	47 17 18 ☽ 20 21 22 23	52 22 23 24 25 26 ● 28
31 28 29 30 31	35 25 26 27 28 29 ● 31	40 ● 30	44 27 ● 29 30 31	48 24 25 26 ● 28 29 30	1 29 30 31

Name and surname:

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5.- The next table is a calendar of last four months of year 2008.

5.1.- Separate in the calendar the months (September, October, November, December)

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<i>Months</i>	
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
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	29	30	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

Name and surname:

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6.- In the calendar of last four months of year 2008, calculate how many days there are between:

- 1) the full moons of September and October:
- 2) the full moons of October and November:
- 3) the full moons of November and December:
- 4) the new moons of September and October:
- 5) the new moons of October and November:
- 6) the full moons of September and November:
- 7) the new moons of October and December:

7.- In the previous exercise, why the results 1 and 2 are different?

8.- Read this text and put one of these words in each blank:

body - volume - quarter - phases - landed - between - natural - average - diameter

<<The Moon is Earth's only _____ [1] satellite and the fifth largest _____ [1] satellite in the Solar System. The _____ [2] centre-to-centre distance from the Earth to the Moon is 384.403 km. The Moon's _____ [3] is 3.474 km, a little more than a _____ [4] of the Earth. This means that the Moon's _____ [5] is about 2 percent that of Earth. The periodic variations in the geometry of the Earth-Moon-Sun system are responsible for the lunar _____ [6] that repeat every 29,5 days.

The Moon is the only celestial _____ [7] to which humans have travelled and upon which humans have _____ [8]. The United States Apollo program [*] achieved the only manned missions to date, resulting in six landings _____ [9] 1969 and 1972. Human exploration of the Moon ceased with the conclusion of the Apollo program [*].>>

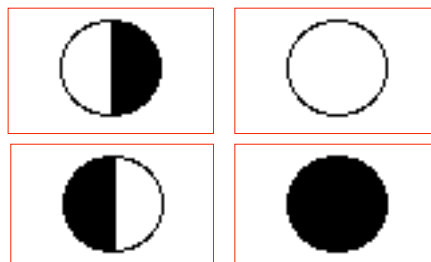
9.- The phases of the Moon (lunar phases) have been given the following names: New Moon, First Quarter Moon, Full Moon and Last Quarter Moon. Complete the sentences:

The is left 50% visible.

The is fully visible.

The is right 50% visible.

The is not visible.



[*] Website: "[Contact Light](#)" and [Apollo Lunar Lander Simulator](#)

Name and surname:

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1.- Earth's structure -read this with a dictionary-

<<The earth consists of several **layers**. The three main layers are the **core**, the **mantle** and the **crust**. The core is the **inner** part of the earth, the crust is the **outer** part and between them is the mantle. The earth is surrounded by the atmosphere. Till this moment it hasn't been possible to take a look **inside** the earth because the current technology doesn't allow it.

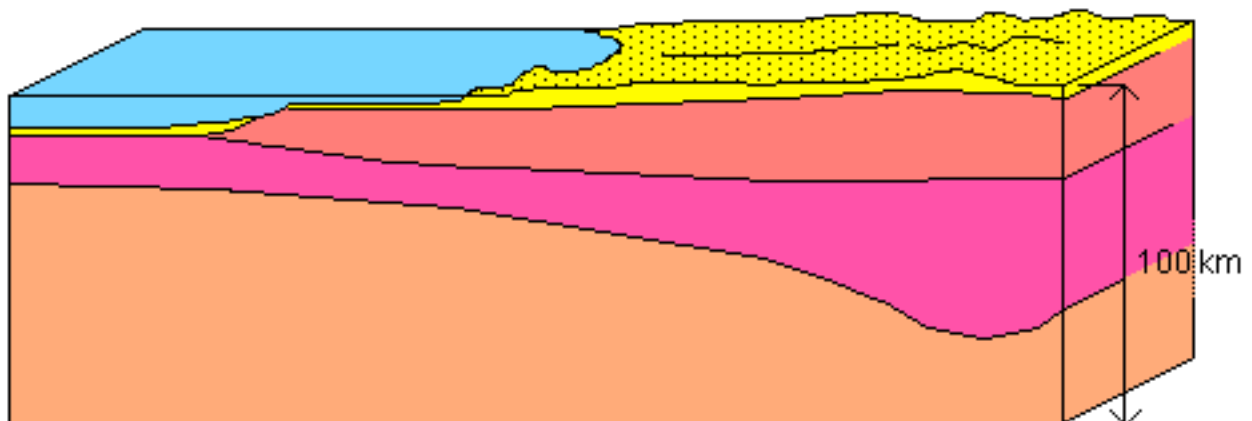
The crust lays **above** the mantle and is the earth's hard outer shell, the surface on which we are living. In relation with the other layers the crust is much **thinner**. It floats upon the softer, denser mantle. The crust is made up of solid material but these material is not everywhere the same. There is an **oceanic crust** and a **continental crust**. The first one is about 4-7 miles (6-11 km) **thick** and consists of heavy rocks, like **basalt**. The continental crust is thicker than the oceanic crust, about 19 miles (30 km) thick. It is mainly made up of light material, like **granite**.

The layer above the core is the mantle. It begins about 6 miles (10 km) below the oceanic crust and about 19 miles (30 km) below the continental crust. The mantle is to divide into the **inner** mantle and the **outer** mantle. It is about 1.800 miles (2.900 km) thick and makes up nearly 80 percent of the Earth's total volume.

The inner part of the earth is the core. This part of the earth is about 1.800 miles (2.900 km) **below** the earth's surface. The core is a dense **ball** of the elements **iron** and **nickel**. It is divided into two layers, the inner core and the outer core. The inner core - the center of earth - is solid and about 780 miles (1.250 km) thick. The outer core is so **hot** that the metal is always **molten**, but the inner core pressures are so great that it **cannot melt**, even though temperatures there reach 6.700°F (3.700°C). The outer core is about 1.370 miles (2.200 km) thick.>>

1.1.- Translate the coloured words.

1.2.- Complete this diagram:



Name and surname:

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2.- The main minerals -read this with a dictionary-

Gypsum is a very soft mineral composed of calcium sulfate dihydrate, with the chemical formula $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. **Colourless** to white; with impurities may be yellow, **tan**, blue, pink, **brown**, reddish brown or gray. **Plaster** ingredient used globally for the finish construction of interior **walls**; the term plaster can refer to plaster of Paris, lime plaster, or cement plaster; and also gypsum is used for fertilizer and **soil** conditioner.

Magnetite is a ferrimagnetic mineral with chemical formula Fe_3O_4 . Colour: black, greyish.

Cinnabar is a name applied to red mercury sulfide (HgS), or native vermilion, the common **ore** of mercury. Colour: brownish-red.

[An ore is a type of rock that contains minerals such as gemstones and metals that can be extracted through mining and refined for use. Metal ores are generally oxides, sulfides, silicates, or "native" metals (such as native copper or "noble" metals such as gold) that are not commonly concentrated in the Earth's crust.]

Galena is the natural mineral form of **lead** sulfide. It is the most important lead ore mineral. Colour: lead gray, silvery. Galena is one of the most abundant and widely distributed sulfide minerals. Galena deposits often contain significant amounts of **silver**.

Siderite is a mineral composed of iron carbonate FeCO_3 . Colour ranges from yellow to **dark brown** or black.

The mineral **pyrite**, or **iron pyrite**, is an **iron** sulfide with the formula FeS_2 . Colour: **pale** metal yellow, **dull** gold. Pyrite is used commercially for the production of sulfur dioxide, for use in such applications as the paper industry, and in the manufacture of sulfuric acid for the chemical industry.

Calcite is a carbonate mineral of calcium carbonate (CaCO_3). Colour: Colourless or white, also gray, yellow, green. It has a Mohs hardness of 3 and its luster is vitreous in crystallized varieties. Calcite is often the primary constituent of the **shells** of marine organisms, e.g., plankton (*foraminifera*), the hard parts of red *algae*, some *sponges*, *echinoderms*, *bivalves*). Calcite is a common constituent of **sedimentary rocks**, limestone in particular, much of which is formed from the shells of dead marine organisms. Approximately 10% of sedimentary rock is limestone. Calcite is the primary mineral in metamorphic **marble**. It also occurs in caverns as stalactites and stalagmites.

Malachite is a carbonate mineral normally known as "**copper** carbonate" with the formula $\text{Cu}_2\text{CO}_3(\text{OH})_2$. Colour: bright **green** to blackish green. Malachite often results from weathering of copper ores and is often found together with azurite [$\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$] and calcite. Except for its vibrant green colour, the properties of malachite are similar to those of azurite and aggregates of the two minerals occur frequently together. Green mineral, a kind of **stone** used for ornaments, decoration, etc.

Azurite is a soft, **deep** blue copper mineral produced by weathering of copper ore deposits. Colour: light blue, azure blue, dark blue. Azurite was used as a blue pigment for centuries.

Name and surname:

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2.- The main minerals -read this with a dictionary- (continuation)

Quartz is the most abundant mineral in the Earth's continental crust (although feldspar is more common in the world as a whole). It is made up of silica (SiO_2). Quartz has a hardness of 7 on the Mohs scale. Colour: clear if no impurities. Sorts of hard mineral including agate and other semiprecious stones.

The mineral **olivine** is a magnesium iron silicate with the formula $(\text{Mg,Fe})_2\text{SiO}_4$. It is one of the most common minerals on Earth, and has also been identified in **meteorites** and on the Moon, Mars, and comet Wild 2. Colour: yellow to yellow-green.

Talc is a mineral composed of hydrated magnesium silicate with the chemical formula $\text{H}_2\text{Mg}_3(\text{SiO}_3)_4$. It is the **widely** used substance known as *talcum powder*. Colour: white, grey, green, blue, or silver. Soft, smooth mineral that can be split into thin transparent plates.

Biotite is a common phyllosilicate mineral within the mica group, with the approximate chemical formula $\text{K}(\text{Mg,Fe})_3\text{AlSi}_3\text{O}_{10}(\text{F,OH})_2$. Biotite is a sheet silicate. It is also sometimes called "black mica" as opposed to "white mica" (**muscovite**) -both form in some **rocks**, in some instances side-by-side. Transparent mineral substance easily divided into thin **layers**, used as an electrical insulator, etc.

Kaolinite is a clay mineral with the chemical composition $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$. Rocks that are rich in kaolinite are known as china clay or kaolin. Colour: white, sometimes red, blue or brown tints from impurities. Kaolin is used in ceramics, medicine, coated paper, as a food additive, in **toothpaste**, as a light diffusing material in white incandescent light bulbs, and in cosmetics. Fine white clay used in making porcelain. It is generally the main component in porcelain.

Feldspar is the name of a group of rock-forming minerals which make up as much as 60% of the Earth's crust. This group of minerals consists of framework or tectosilicates. Compositions of major elements in common feldspars: Albite is $\text{NaAlSi}_3\text{O}_8$ and Anorthite is $\text{CaAl}_2\text{Si}_2\text{O}_8$.

2.1.- Translate the coloured words.

2.2.- Complete the next sentences:

1) _____ is a common constituent of sedimentary rocks, limestone in particular; approximately 10% of sedimentary _____.

2) The _____ white, sometimes red, blue or brown.

3) The _____ a kind of stone used for ornaments and decoration.

Name and surname:

Date:

Group:

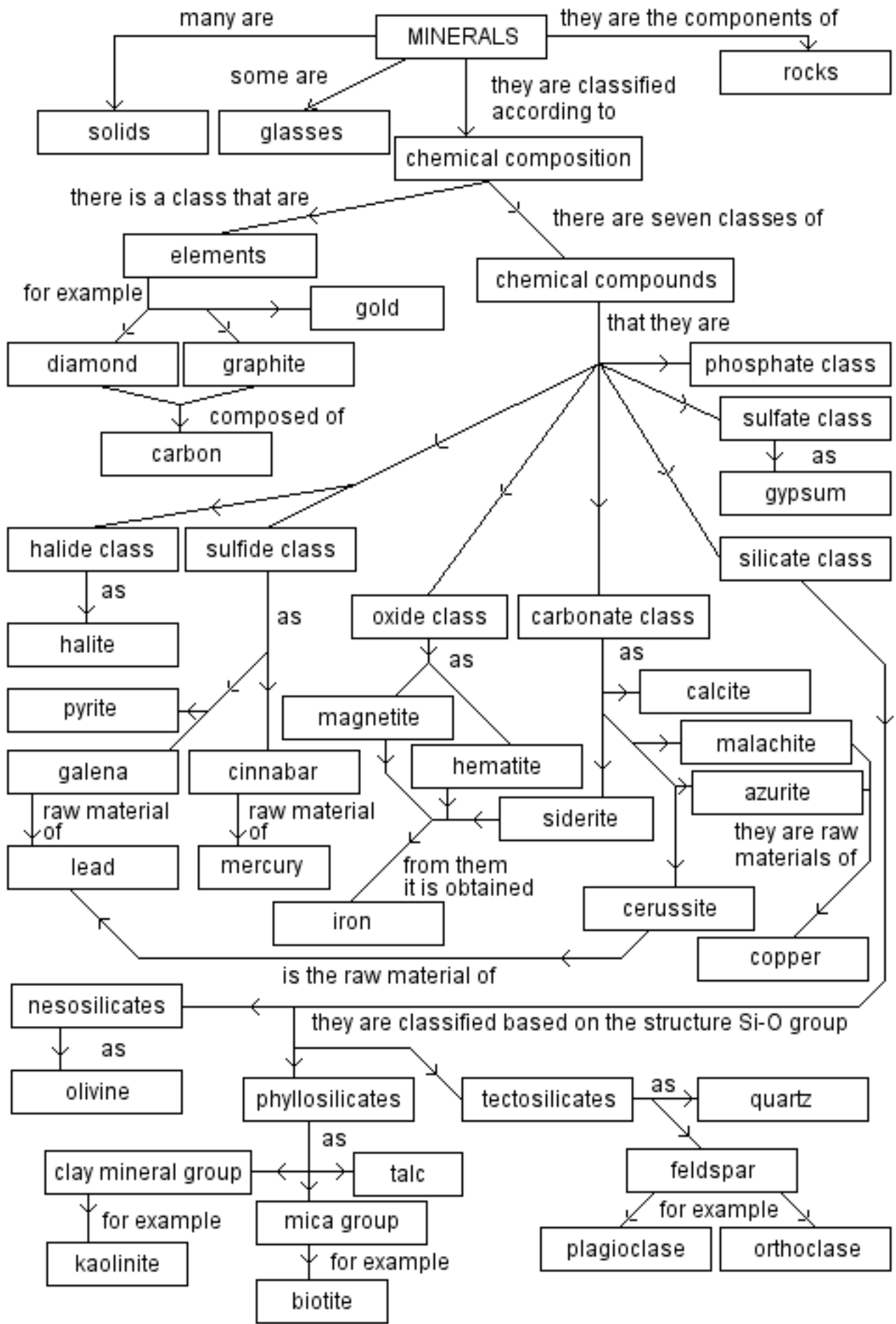
2.2.- Complete the next sentences: (continuation)

- 4) The _____ has also been identified in meteorites and on the Moon.
- 5) _____ often results from weathering of copper ores and is often found together with _____.
- 6) The _____ colourless or white, also gray, yellow, green.
- 7) The _____ is a ferrimagnetic mineral. Colour: black, greyish.
- 8) The _____ is a name applied to red mercury sulfide, or native vermilion, the _____.
- 9) _____ is one of the most abundant and widely distributed sulfide minerals. _____ deposits often contain significant amounts of silver.
- 10) The _____ is used for fertilizer and soil conditioner.

2.3.- Complete the next table:

<i>mineral</i>	<i>group / class</i>	<i>application</i>
cinnabar	sulfide	ore of mercury
.....	oxide	.....
.....	.....	ore of lead
.....	sulfate	.....
.....	phyllosilicate	.....
.....	.....	chemical industry
.....	.....	decoration
.....

Words: *phyllosilicate, carbonate, galena, sulfide, kaolinite, malachite, electrical insulator, ore of iron, plaster, pyrite, biotite, toothpaste, gypsum, magnetite.*



Name and surname:

Date:

Group:

1.- **Genesis**, omnifilm of *The Science Museum of Minnesota (1978)*

Earth - bodies - before - **suns** - violent creation - **Universe** - nearly 20 billion **years ago**.
 [20.000.000.000 years] - burned - great star - **supernova explosion** - begins - **solar system** - dust
 - **solar nebula** - four-and-a-half billion years [4.500.000.000 years] - **molten Earth crusted** -
 primeval seas - **life evolved** - titanic forces and movements - we read the codes of **fossils** -
earthquakes - study of Earth - theory called "**Global Plate Tectonics**" - of extraordinary
journeys of the **continents** - 200 million years ago when **dinosaurs** - all of the continents were
 then assembled in a **single land mass** a **super-continent** now called Pangea - 180 million years
 ago, a great rift has begun to open **between** what will become North America and Africa. The
 Atlantic **is born** 135 million years ago the first true **birds** appear in the primeval **skies**.

South America fractures from Africa - climates and wather change constantly shaping the
 evolution of **Life** - India has broken free from Antarctica - to collide with Asia 40 million years ago
 creating the mighty Himalayas and the Tibetan **plateau** - the **crust** of the Earth to consist of a
 number of **rigid plates** - **mantle** of the Earth - the movements of the plates are sustained by the
 continous creation of **new Earth's crust** - the **central rifts** of the **great mid-ocean ridges** -
 the magma forces its way upward - between the plates - **seafloor** - surface in spectacular
 undersea lava forms - suddenly **volcanoes are born** - the **birth** of the **island** of Surtsey near
 Iceland - land of ice and fire of glaciers - geological feature so enormous it can be seen from de
Moon, the **Great Rift Valley of Africa**. This great crack in the Earth's crust extends for 4.000
 miles - the continent fractured some 20 million years ago an escarpment - the Rift Valley - exposed
sediments of three millions years - clearest record of the **genesis of man** - have discovered
 the **oldest fossil** - human evolution - life - the movement and **separation of the continents** - to
 proliferate in a thousand directions - evolution explored - the climates and weather constantly
 changed - more adaptive life-forms would not have evolved to displace older species - **mammal**
 might never have succeeded **reptile** - man might never have gained dominion - **upon the Earth**.

Name and surname:

Date:

Group:

2.- **Genesis**, omnifilm of The Science Museum of Minnesota (1978) - Complete the next sentences:

1) All matter of _____ every particle of our _____ has existed before in other _____ and times distant beyond all our powers to imagine.

2) We were of the primordial matter formed in the violent creation of the _____ nearly 20 billion _____. Our matter burned in the refineries of a great _____ and was flung again into the void in a _____ explosion.

3) Volcanoes discharged the _____ and waters which would form the planet's surface. Continents emerged from primeval _____. Life evolved.

4) From a dozen sciences came the fragments of answers which were to revolutionize the study of Earth. An astonishing theory took shape. It is a theory called "Global _____" but it is nothing less than the rediscovery of the Earth an encompassing theory of Earth's crust. Being continuously created and destroyed of a genesis which has never ended of extraordinary journeys of the _____.

5) The most recent _____ began almost 200 million years ago when _____ were in their ascendancy. All of the continents were then assembled in a single land mass a super-continent now called _____.

6) 180 million years ago, a great rift has begun to open between what will become North America and Africa. The _____ is born 135 million years ago the first true _____ appear in the primeval _____.

7) South America fractures from _____. Great areas of the continents drown and emerge with the drift of the _____. Climates and water change constantly shaping the evolution of _____.

8) India has _____ free from Antarctica and drifts north to collide with Asia 40 million years ago creating the mighty Himalayas and the _____ plateau. Dinosaurs have perished. Mammals multiply. The Atlantic widens as the Pacific dies. The world we know took form. We now know the _____ of the Earth to consist of a number of rigid _____.

9) The _____ of the plates are sustained by the continuous creation of new Earth's crust. This process -one of four major tectonic processes- is called "seafloor spreading"- it occurs within the central _____ of the great mid-ocean ridges which wind for 40.000 miles across the ocean floors.

STUDENT MICROSCOPES *(vocabulary)*

Standard light microscope

base

pillar

arm

light source

nosepiece

stage

slide

cover glass

stage clips

ocular lens

tube

iris diaphragm

high-power objective lens

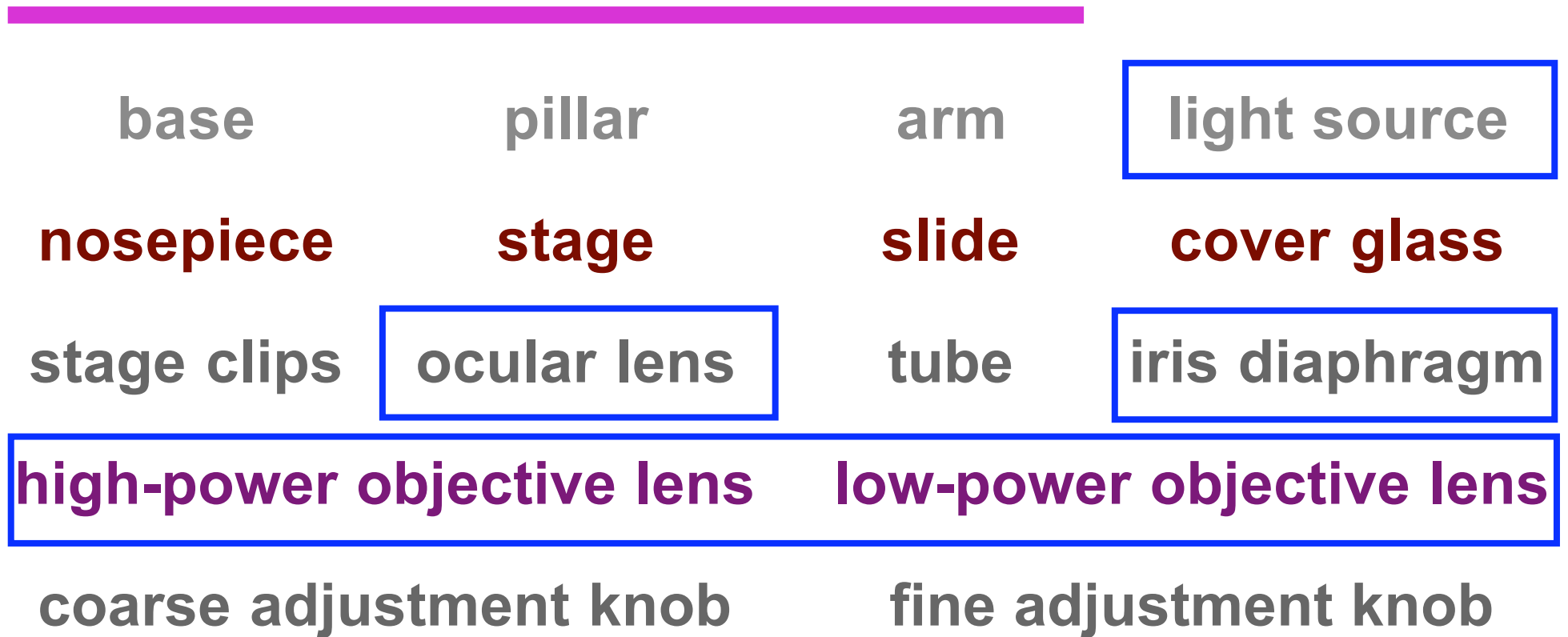
low-power objective lens

coarse adjustment knob

fine adjustment knob

STUDENT MICROSCOPES *(vocabulary 2)*

Standard light microscope



ANIMAL CELL (*vocabulary*)

cell membrane

cytoplasm

mitochondrion

nucleus

Golgi complex

centriole

nuclear envelope

vacuole

ribosome

nucleolus

endoplasmatic reticulum

chromatin

PLANT CELL *(vocabulary)*

cell membrane

cell wall

cytoplasm

nucleus

Golgi complex

chloroplast

nuclear envelope

vacuole

plastids

nucleolus

endoplasmatic reticulum

chromatin

mitochondrion

ribosome

Name and surname:

Date:

Group:

1.- Origins of Life, SLINGSHOT - JRB 2002**1.1.- Vocabulary:**

Origins of Life: - Great eruption: -

Stars: - Black holes: -

Milky Way: - Extinct: -

Sun: - Rocks: -

Rain: - Spring: -

Pools: - Organic matter: -

Cell: - Drop: -

World: - Multi-cellular organisms: -

Feed: - Sponge: -

Colony: - Coral reefs: -

Plankton: - Mouth: -

Teeth (*sing.*) - tooth (*plur.*): - Starfish: -

Worm: - Branchiae: -

Clouds: - Eggs: -

Scallops: - Sea slugs: -

Success: - Shells: -

Octopus: - Cucumber: -

Ascidian: - Shark: -

Fish: - Bones: -

Lung fish: - Breath: -

1.2.- Some translations:

(*singular words*) llimac - pulmó - alè - petxina de pelegrí - alimentar-se (*infinitive*) - closca - gota - primavera - rajar (*infinitive*) - espina - bassal - núvol