



lo

Nuvole e Temperatura

1. Usa il modulo "nuvole" (P17b) e le schede informative "Tipi di nuvole" (P17c) per scoprire quali nuvole si trovano nel cielo. Scrivi le tue osservazioni nella tabella.
2. Utilizzare il termometro per misurare la temperatura dell'aria e del terreno (asfalto/catrame o pavimentazione) sul cortile della scuola. Immettere le misure nella tabella seguente.

Data e ora:

		osservazione / misurazione
Nuvole	Nuvole	
	colore cielo	
	tipo di nuvola	
	condizioni a livello del suolo	
Temperatura	temperatura del suolo	
	temperatura dell'aria	





Nuvole

Controlla le tue osservazioni. In alcune caselle verrà visualizzata una freccia bianca. Solo quando hai posizionato una croce lì, vai alla casella puntata dalla freccia. Se non è stata posizionata una croce lì, è possibile saltare questa casella.

1. What do you see in the sky?

Degree of coverage (clouds, vapor trails) <input type="radio"/> darkened <input type="radio"/> nothing <input type="radio"/> clear (<10%) <input type="radio"/> isolated (10-25%) <input type="radio"/> scattered clouds (25-50%) <input type="radio"/> broken cloud cover (50-90%) <input type="radio"/> overcast sky (90-100%)	<input type="radio"/> fog <input type="radio"/> heavy rain <input type="radio"/> drifting snow <input type="radio"/> heavy snowfall <input type="radio"/> sand	<input type="radio"/> spray <input type="radio"/> smoke <input type="radio"/> dust <input type="radio"/> mist <input type="radio"/> volcanic ashes
Move on to box 6.		

2. Color and visibility of the sky

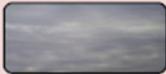
Color <input type="radio"/> sky invisible <input type="radio"/> deep blue <input type="radio"/> blue <input type="radio"/> light blue <input type="radio"/> pale blue <input type="radio"/> milky	Visibility <input type="radio"/> sky invisible <input type="radio"/> very clear <input type="radio"/> clear <input type="radio"/> slightly hazy <input type="radio"/> very hazy <input type="radio"/> extremely hazy
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3. High clouds and condensation trails

<input type="radio"/> No high clouds to be seen Go to box 4. Type of clouds: <input type="radio"/> condensation trails (number) <input type="radio"/> cirrus <input type="radio"/> cirrocumulus <input type="radio"/> cirrostratus	Number of condensation trails that are ... <input type="radio"/> short-lived <input type="radio"/> lasting, not scattered <input type="radio"/> lasting scattered	Degree of coverage <input type="radio"/> clear (<10%) <input type="radio"/> isolated (10-25%) <input type="radio"/> scattered clouds (25-50%) <input type="radio"/> broken cloud cover (50-90%) <input type="radio"/> overcast sky (90-100%)	Opacity of the clouds <input type="radio"/> opaque <input type="radio"/> slightly translucent <input type="radio"/> highly translucent
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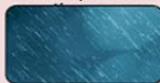
4. Middle clouds

<p><input type="radio"/> No middle clouds to be seen Go to box 5.</p> <p>Type of clouds:</p> <p><input type="radio"/> altostratus </p> <p><input type="radio"/> altocumulus </p>	<p>Degree of coverage</p> <ul style="list-style-type: none"> <input type="radio"/> clear (<10%) <input type="radio"/> isolated (10-25%) <input type="radio"/> scattered clouds (25-50%) <input type="radio"/> broken cloud cover (50-90%) <input type="radio"/> overcast sky (90-100%) 	<p>Opacity of the clouds</p> <ul style="list-style-type: none"> <input type="radio"/> opaque  <input type="radio"/> slightly translucent  <input type="radio"/> highly translucent 
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5. Low clouds

<p><input type="radio"/> No low to be seen Go to box 6.</p> <p>Type of clouds:</p> <p><input type="radio"/> fog </p> <p><input type="radio"/> nimbostratus </p> <p><input type="radio"/> cumulonimbus </p>	<p><input type="radio"/> stratus </p> <p><input type="radio"/> cumulus </p> <p><input type="radio"/> stratocumulus </p>	<p>Degree of coverage</p> <ul style="list-style-type: none"> <input type="radio"/> clear (<10%) <input type="radio"/> isolated (10-25%) <input type="radio"/> scattered clouds (25-50%) <input type="radio"/> broken cloud cover (50-90%) <input type="radio"/> overcast sky (90-100%) 	<p>Opacity of the clouds</p> <ul style="list-style-type: none"> <input type="radio"/> opaque  <input type="radio"/> slightly translucent  <input type="radio"/> highly translucent 
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6. Conditions close to the ground

Mandatory				Voluntary	
<p>snow / ice <input type="radio"/> yes <input type="radio"/> no </p> <p>stagnant water <input type="radio"/> yes <input type="radio"/> no </p> <p>boggy <input type="radio"/> yes <input type="radio"/> no </p>	<p>dry <input type="radio"/> yes <input type="radio"/> no </p> <p>trees with leaves <input type="radio"/> yes <input type="radio"/> no </p> <p>it rains / snows <input type="radio"/> yes <input type="radio"/> no </p>	<p>temperature: _____ °C</p> <p>air pressure: _____ mb</p> <p>relative humidity: _____ %</p>			



Cloud types

Five word elements are used to designate the different cloud types:

CIRRO for clouds at a very high altitude (high clouds), **ALTO** for clouds in medium altitude (middle clouds),

CUMULUS for fleecy or heap clouds, **STRATUS** for sheet clouds, **NIMBUS** for rain clouds



High clouds 5-13 km



Cirrus

Feather clouds

Shape: fibrous or thread-like, formed by wind currents; stripes, bands, spots, sometimes bizarre structures
Thickness: very thin, sun shines through
Color: white, with a silky glimmer
Info: always consists of ice crystals

Middle clouds 2-7 km



Altostratus

Rough fleecy clouds

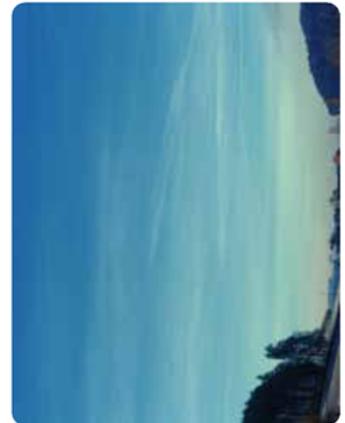
Shape: stripes, spots, patchy layers; often arranged in banks
Thickness: moderately thick
Color: white or grey shades, partly pearlized
Info: consists of water drops, sometimes supercooled; diameter of cloud elements 1-5 μ m (1-3 fingers on the outstretched hand)



Cirrocumulus

Fleecy clouds

Shape: fine white balls or flakes, thin, sometimes patchy, sheet-like
Thickness: very thin, sun shines through
Color: white
Info: consists of ice crystals, rarely also of supercooled water drops; diameter always < 0.5 μ m (pinky on the outstretched hand)



Cirrostratus

High sheet clouds

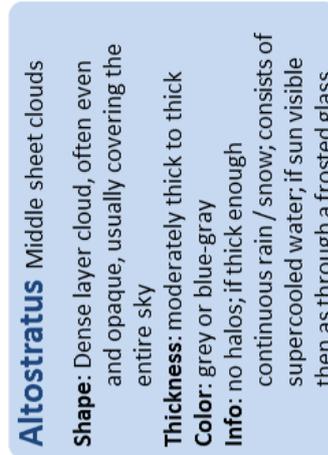
Shape: Thin, milky, translucent cloud veil of hairy or fibrous appearance; covers large parts of the sky
Thickness: very thin, sun always shines through and is sharply defined
Color: light grey or whitish
Info: can cause halo appearances around moon and sun



Nimbostratus

Rain clouds

Shape: Grey veil covering the entire sky, indistinct lower edge
Thickness: thick
Color: medium till dark grey
Info: consists of supercooled water, larger rain drops and snow crystals or snowflakes; causes continuous rain



Altostratus

Middle sheet clouds

Shape: Dense layer cloud, often even and opaque, usually covering the entire sky
Thickness: moderately thick to thick
Color: grey or blue-grey
Info: no halos; if thick enough continuous rain / snow; consists of supercooled water; if sun visible then as through a frosted glass



Nimbostratus

Rain clouds

Shape: Grey veil covering the entire sky, indistinct lower edge
Thickness: thick
Color: medium till dark grey
Info: consists of supercooled water, larger rain drops and snow crystals or snowflakes; causes continuous rain

Tipi di nuvole

lo

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Cloud types

Five word elements are used to designate the different cloud types:

CIRRO for clouds at a very high altitude (high clouds), **ALTO** for clouds in medium altitude (middle clouds), **CUMULUS** for fleecy or heap clouds, **STRATUS** for sheet clouds, **NIMBUS** for rain clouds

Low clouds 0-2 km



Stratocumulus

Fleecy sheet clouds

Shape: mosaic-like plaices, rollers, or banks, sharply bounded or frazzled
Thickness: moderately thick
Color: grey or whitish
Info: consists of water or ice crystals; mostly no rain or snow; partly remainders of Stratus or Cumulus clouds



Cumulonimbus

Shower- or thundercloud

Shape: bulky and dense clouds shaped like a high mountain or tower, often with an anvil
Thickness: thick, looming
Color: lower side dark grey
Info: often brings thunderstorms (lightning, thunder, hail)

Low clouds 0-2 km



Stratus

Low sheet clouds / high fog

Shape: grey even layer cloud (often high fog); lower edge usually low and rather difficult to detect
Thickness: thin to moderately thick
Color: light grey to dark grey
Info: seldom rain or snow; if sun visible then sharply outlined



Fog

Stratus

Info: Fog is a cloud that touches the ground. You don't usually see what kind of cloud that is.



Cumulus

Heap clouds

Shape: separate, sharply bounded clouds shaped like hills, knolls, or towers; lower edge flat
Thickness: moderately thick to thick
Color: shining white in sunlight
Info: seldom rain or snow, can be precursor of Cumulonimbus



P17c

lo

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