

Organised by
LABTER-CREA
Rete di Scuole Mantova



in collaboration with

Associazione GLOBE ITALIA

GLOBE ITALIA
Rete Nazionale di Scuole

GLOBE Program

IISS Bassa Friulana
Rete di Scuole Friuli



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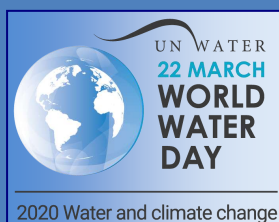
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Rivers in Spring **Manifestation-event on** **World Water Day 2020**

Friday 20 March 2020

Mantova Lungolaghi Gonzaga and Mincio



Institutional Partners



Parco del Mincio Parco Oglio Sud

Other Partners



Sponsors

Comune di Mantova supports Labter-Crea Rete di Scuole

STA, Società Trattamento Acque srl, supported Labter-Crea Rete di Scuole and "Rivers in Spring" in 2018 and 2019

EUROTEND s.r.l. supports Labter-Crea Rete di Scuole and "Rivers in Spring"

Exhibiting Schools

Schools of Labter-Crea network: SSPG Curtatone IC Curtatone, SP di Ceresara e Piubega e SSPG di Piubega e Gazoldo degli Ippoliti IC Ceresara, SSPG di Goito IC Goito, SSPG di Roncoferraro IC Roncoferraro, SSPG IC "Parazzi" Viadana, SP Ponti sul Mincio IC Volta Mantovana, IS "Fermi" MN, IS "Strozzi" sedi di Mantova e di San Benedetto Po, ITET "Mantegna" MN

Other Schools: ISIS "Bassa Friulana" Cervignano del Friuli (UD), ISIS "Brignoli-Einaudi-Marconi" Gradisca d'Isonzo (GO), Liceo Scientifico "Calini" BS, Liceo Classico e Linguistico "Virgilio" MN, Liceo "I. D'Este" delle Scienze Umane, IT "C. D'Arco" MN, IC Dosolo-Pomponesco-Viadana

Document Structure

Exhibitors running activities	page 3
Program	page 7
Schedule of activities	page 7
Contacts	page 32
Event site	page 33
The Labter-Crea School Network	page 34
Supporting partners	page 34
Services	page 35



20th Ed.

RIVERS IN SPRING

(FIUMI DI PRIMAVERA)

Mantova (Italy)

A PLASTIC-FREE Event
C-CHANGE Monitored



THE
GLOBE PROGRAM



Exhibitors running activities

Exhibitors	Activities	Page
LUNGOLAGO GONZAGA		
WELCOME		
ITET Mantegna MN-Settore Sanitario	Welcome	7
ITET Mantegna MN-Settore Sanitario	Dirty Faces	7
SECTION 1	EXCURSIONS IN THE ENVIRONMENT	
Motonavi Andes Negrini	Excursions over the water (riverboat)	7
Gruppo Canoistico Rivaltese	Excursions by kayak	7
Circolo Subacqueo Mantovano	Monitoring and documenting excursions	7
Federazione Italiana Ambiente e Bicicletta (FIAB)	Spinning freely! Cycle workshop, documentary and excursions	8
Club Alpino Italiano (CAI) Mantova	Mountains to live, mountain to know	8
SECTION 2	ENVIRONMENT AND COMMUNICATION	
LABTER-CREA Rete di Scuole	<i>Water and Climate Change</i> PHOTO SAFARI	9
SECTION 3	SCHOOLS FOR SCIENCE AND CULTURE – IN THE ENVIRONMENT FOR THE ENVIRONMENT	
IISS BASSA FRIULANA, Cervignano del Friuli, Udine	AGENDA 2030 - Sustainability: innovation, circular economy, job market	10
IISS BASSA FRIULANA, Cervignano del Friuli, Udine	CITIZEN SCIENCE: it's not just air we breathe	10
IISS BASSA FRIULANA, Cervignano del Friuli, Udine	CITIZEN SCIENCE: clouds and climate change – Let's read the sky with an app.	10
IISS BASSA FRIULANA, Cervignano del Friuli, Udine	ANTHROPOGENIC EFFECT: monitoring surface waters	10
IISS BASSA FRIULANA, Cervignano del Friuli, Udine	THE WATER WE BREATHE: a scale model of the water-cycle	10
ISIS Brignoli-Einaudi-Marconi di Gradisca d'Isonzo (GO)	Climate Change VS Lago di Doberdò: a case study and hydrogeological model of an at-risk ecosystem.	10
ISIS Brignoli-Einaudi-Marconi di Gradisca d'Isonzo (GO)	Water quality: biomonitoring of surface waters (IBE)	10
ISIS Brignoli-Einaudi-Marconi di Gradisca d'Isonzo (GO)	Water quality: chemico-physical monitoring of surface waters	10
Liceo Scientifico <i>Calini</i> Brescia	WOW-Erasmus and ALPS4NATS Projects: Sedimentology	11
Liceo Scientifico <i>Calini</i> Brescia	WOW-Erasmus and ALPS4NATS Projects: Devices for physical sampling	11
Liceo Scientifico <i>Calini</i> Brescia	WOW-Erasmus and ALPS4NATS Projects: The Ideas blackboard	11
Liceo Classico e Linguistico <i>Virgilio</i> MN	The chemico-physical properties of water	12
Liceo Classico e Linguistico <i>Virgilio</i> MN	Mantova from the Middle Ages to today: hystory of Mantova's hydrology up to our time	12
Liceo Classico e Linguistico <i>Virgilio</i> MN	Reflection on the high value of water resources	12
Liceo Classico e Linguistico <i>Virgilio</i> MN	Statistical investigation on climate change	12
IS Strozzi sede di San Benedetto Po	How are you, dear lakes?	13
IS Strozzi sede di Mantova	Phytotoxicity testing of the water from Mantova's lakes	13
ITET Mantegna MN	Water is life and life is in the water: microscope observations	14
ITET Mantegna MN	Microscopic life needs water too: microscope observations through a microscope	14
Scuola Secondaria di Primo Grado di Buscoldo, IC Curtatone, con Ing.Faggioli	The cards of change	14
Scuola Secondaria di Primo Grado di Buscoldo, IC Curtatone	Causes and effects	14
Scuola Secondaria di Primo Grado di Buscoldo, IC Curtatone	The effects of changes in the Mantuan territory	14
Scuola Secondaria di Primo Grado di Buscoldo, IC Curtatone	Fantastic water!	14
Scuola Secondaria di Primo Grado di Goito, I.C. Goito	The right to a happy climate!!	15

	Scuola Secondaria di Primo Grado di Roncoferraro, IC Roncoferraro	A history of floods and management of the territory of Mantova	15
	Scuola Secondaria di Primo Grado di Piubega e Gazoldo degli Ippoliti, IC Ceresara	Climate change	16
	Scuola Secondaria di Primo Grado di Piubega, I.C. Ceresara	Let's design and build a 3D model for a sustainable city	16
	Scuola Secondaria di Primo Grado di Piubega e Gazoldo degli Ippoliti, I.C. Ceresara	Let's open a window on...	16
	Scuola Secondaria di Primo Grado di Piubega	"Piubega News" Extraordinary issue	16
	Scuola Secondaria di Primo Grado di Piubega e Gazoldo degli Ippoliti, I.C. Ceresara Primary School di Piubega,	Our natural habitat, a guarantee of quality of life, threatened by overheating	16
	Scuole Primarie di Ceresara e di Piubega, IC Ceresara	There's something in the air..., Futuristic Energy, Kite-building laboratory	16
	IS <i>Fermi</i> Mantova	Bio-Corrosion	17
	IS <i>Fermi</i> Mantova	Rio Scuole Project	17
	IS <i>Fermi</i> Mantova	Energetically-self-sufficient phyto-based water treatment plant	17
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	Water in the frame	18
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	Little....but good?	18
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	Snow in spring?	18
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	Is the sea melting?	18
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	The sea is rising	18
	Scuola Secondaria di Primo Grado <i>Parazzi</i> Viadana	Hot'n cold	18
	Scuola Primaria di Ponti sul Mincio Istituto Comprensivo Volta Mantovana	Earth, Water, Man: didactic Laboratory Activiy 1: the river Mincio, as it was, as it is	
	Scuola Primaria di Ponti sul Mincio Istituto Comprensivo Volta Mantovana	Earth, Water, Man: didactic Laboratory Activiy 1: Indigenous and Aliens, goose game	
	Liceo I. D'Este, Indirizzo Scienze Umane MN	Playful laboratory and theatrical activities for the youngest	18
	Liceo I. D'Este, Indirizzo Scienze Umane MN	Animated reading and small theatre play	18
	Liceo I. D'Este, Indirizzo Scienze Umane MN	Small creative laboratories	18
	Istituto Tecnico C. D'Arco MN	Attività in via di definizione	
	SECTION 4	UNIVERSITIES AND ENVIRONMENTAL RESEARCH CENTRES	
	Institute for Frontier Materials, Deakin University, Geelong, Vic, Australia	Aliens in the hydrosphere: the jumper found among the fish	19
	Institute for Frontier Materials, Deakin University, Geelong, Vic, Australia	Display of images and results of the "Aliens in the Hydrosphere - Elba Island 2019" water sampling campaign	19
	Joint Research Center ISPRA (VA)	Have you spotted an Alien?	20
	Joint Research Center ISPRA (VA)	Smart App "Invasive Aliens Europe" Display of information	20
	Istituto di BioEconomia (IBE) – Consiglio Nazionale delle Ricerche (CNR) Firenze	How plants use water: transpiration measurements with gas analyzer on stressed plants	20
	Istituto di BioEconomia (IBE) – Consiglio Nazionale delle Ricerche (CNR) Firenze	How plants use water: lymph flow measurements	20
	Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale	Planar Optodes	21

	Università di Parma		
	Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale Università di Parma e CNR-IREA	<i>Vallisneria spiralis</i> , the ideal macrophyte	21
	SECTION 5	AN ALTELIER ON SCIENCE AND ENVIRONMENT FOR CURIOUS MINDS	
	MASTeR Mantova	Science and Nature: amusing scientific experiments	21
	SECTION 6	ADMINISTRATIVE BODIES, PARKS, AGENCIES, ORGANISATIONS FOR MANAGEMENT, CONTROL AND PROTECTION OF WATER AS A RESOURCE, AND FOR ENVIRONMENTAL PROTECTION	
	Regione Lombardia, Ufficio Territoriale Val Padana - Spazio Regione Mantova	Regione Lombardia informs	22
	Comune di Mantova, Settore Pubblica Istruzione	Agenda 2030: goals for the very young	22
	Comune di Mantova, Settore Ambiente	C-CHANGE Project	22
	Provincia di Mantova, Ufficio AUA – Autorizzazioni allo Scarico – Verifiche di VIA	Water...let's treat it well!	23
	Comitato Coordinamento Volontariato di Protezione Civile della Provincia di MANTOVA	Good practice in civil protection services The tele-radio-communication of the Mantuan province civil protection services (colonna mobile)	24
	Parco del Mincio, segreteria didattica e Guardie Ecologiche Volontarie	Parco del Mincio Info Pont	24
	Parco del Mincio, segreteria didattica e Guardie Ecologiche Volontarie	Let's take a test: Nature Eco-game	24
	Parco Oglio Sud	Parco Oglio Sud: The Park, the Culture of the River and of its inhabitants	25
	Parco Oglio Sud	Plants in the local agricultural culture	25
	Parco Oglio Sud	The OGLIO Project: macroinvertebrates, the most hidden inhabitants of the river	25
	ERSAF Lombardia, Ente Regionale per i Servizi all'Agricoltura e alle Foreste, Sede di Mantova - Carpaneta	Water and climate change: agriculture and forests: 1. The importance of water: a saving race	25
	ERSAF Lombardia, Ente Regionale per i Servizi all'Agricoltura e alle Foreste, Sede di Mantova - Carpaneta	Water and climate change: agriculture and forests: 2. Climate change modifying natural cycles	25
	ARPA Lombardia, Agenzia Regionale di Protezione Ambientale	Water quality: instruments for environmental monitoring and educational models	26
	ARPA Lombardia, Agenzia Regionale di Protezione Ambientale	Water and environment: methods to measure quality of the air and industrial emissions	26
	ARPA Lombardia, Agenzia Regionale di Protezione Ambientale	- Measuring electromagnetic and noise pollution. - Presentation of water quality measurement results	26
	ARPA Lombardia, Agenzia Regionale di Protezione Ambientale	AMBIENTIAMOCI, series of volumes. Presentation and distribution to classes	26
	ATS VAL PADANA Sede di Mantova	Information and demonstrations (at the ARPA stand)	26
	Nel perimetro di ARPA Lombardia: le proposte dell'Ing. Avio Ferraresi	LIGHT + FOOD + PLAY = CLEAN ENERGY FOR LIFE From the wheel in the mill to the hydroelectric plant	26
	Centro Nazionale Carabinieri Biodiversità "Bosco Fontana", Reparto Biodiversità di Verona	How climate change affect the diffusion of aquatic species	27
	Consorzio di Bonifica Territori del Mincio	A show of clean water and puppets	27
	TEA Acque	Viva l'ACQUA!	27
	TEA Acque	Stand: informative material and gadgets	27
	AIPO	A physical model of the River Po delta	28
	AIPO	Trials on hydraulic river models	28
	P.V.A. CROCE VERDE di Mantova	Water and our organism: irreplaceable source of life	28

	SECTION 7	ASSOCIATIONS FOR THE ENVIRONMENT, CULTURE AND SPORT	
	Fondazione Le Pescherie di Giulio Romano	Project Rio: Common Good	29
	Slow Food, condotta di Mantova	Distribution of the video "THE MINCIO VALLEYS, a difficult balance, recovery of the ichthyic heritage and re-naturalisation of water courses	29
	Circolo <i>Amici della Vallazza</i>	Wild birds and river stories	29
	Circolo <i>Amici della Vallazza</i>	In Virgilio's waters + Video about Vallazza	29
	FIPSAS Mantova, Federazione Italiana Pesca Sportiva e ACTIVITY Subacquee	Fish in our waters	30
	Circolo Subacqueo Mantovano, FIPSAS, Mantova	The appeal of the underwater world	30
	Università Verde <i>Pietro Toesca</i>	Don't leave anyone behind: Laboratory	30
	Pro Loco <i>Amici di Rivalta</i> e Parco del Mincio	The Parco del Mincio, its Valleys	30
	Associazione Italiana Cultura Sport	Actions by the association	30
	NATURASI'	For agriculture that respects the land and biodiversity	30
	Deafal ONG	Green School, a Lombard school network for sustainable development	30
	LUNGOLAGO MINCIO, PARCO DELLA SCIENZA		
	Comune di Mantova	Doing science along the lake banks: use of the <i>Parco della Scienza</i> pocket book	31
	EVENT CONTACTS AND SITE		31
	SCHOOLS OF THE LABTER-CREA NETWORK		32
	PARTNERS AND SUPPORTERS		32
	SERVICES		33-34



RIVERS IN SPRING 2020
Mantova
(Italy)

Ore 9:00 – 15:00	Activities for schools and citizens
Ore 11:00	Brief speech by the Institution representatives
	Meet next to the Regione Lombardia UTR MN stand

ACTIVITIES SCHEDULE

LUNGOLAGO GONZAGA

PARTICIPANT WELCOME 1

ITET "MANTEGNA" MANTOVA

WELCOME! HOSPITALITY AND INFORMATION SERVICE

Class 3B Indirizzo Sanitario ITET Mantegna, MN

Teacher: Laura Lui



PARTICIPANT WELCOME 2

ITET "MANTEGNA" MANTOVA

DIRTY FACES

Young and not will be painted with symbols of the event

Class 3B Indirizzo Sanitario ITET Mantegna, MN

Teacher: Laura Lui



1 ENVIRONMENTAL EXCURSIONS

EXCURSIONS IN THE WATER, AMONG NATURE AND CULTURE

EXCURSIONS ON THE "ANDES-NEGRINI" RIVER BOAT ON THE LAGO INFERIORE AND IN THE VALLAZZA

Lago Inferiore Imbarcadero (Jetty)

Departures: 9:30, 10:30, 11:30, 12:30 (boarding starts 10 minutes before each departure)

Duration 45 minutes

Booking required by March 15, book through LABTER-CREA Email: labter@labtercrea.it

KAYAK EXCURSIONS

The activity responds to the requirements of sustainable mobility and of recreational use of natural resources. With zero impact, the activity will be managed by the Gruppo Canoistico Rivaltese expert personnel.

Those who intend to take advantage of this awesome activity need to carry their parents authorisation.

Gruppo Canoistico Rivaltese

EXCURSIONS IN THE WATER FOR SAMPLING, ANALYSIS, DOCUMENTING

Circolo Subacqueo Mantovano (Diving circle) Contact: Roberto Zandegù Cell. 340 9528 334





**FEDERAZIONE ITALIANA AMBIENTE E DELLA BICICLETTA
(FIAB – ITALIAN FEDERATION FOR ENVIRONMENT AND CYCLING)
SEZIONE DI MANTOVA**

SPINNING FREELY!

On a bike, for the environment

Ciclofficina FIAB

Bicycle maintenance and small repairs

Bicycles and Cycle workshops

Viewing of the documentary on bicycles and cycle workshops, by the Class 3E of the 1st grade Secondary School "Maurizio Sacchi", Mantova.

Excursions on a bike along the banks of the Lakes of Mantova

Itinerary: Lago di mezzo: Castello di san Giorgio, right [shore](#) of the Lago di Mezzo, Ponte dei Mulini, Porta Giulia in Cittadella, left bank of the Lago di Mezzo, Sparafucile. Distance: 6 km. Duration: 1 hour.

Departures 10:00, 11:00, 12:00 from the FIAB stand.

Maximum number of participants: 1 class.

Thanks to the FIAB Mantova operators: Mattioli Daniele, Massimo Codurri, Fabio Bringhenti, Francesco Galati.

ALPINE AND APPENNINIC ENVIRONMENT



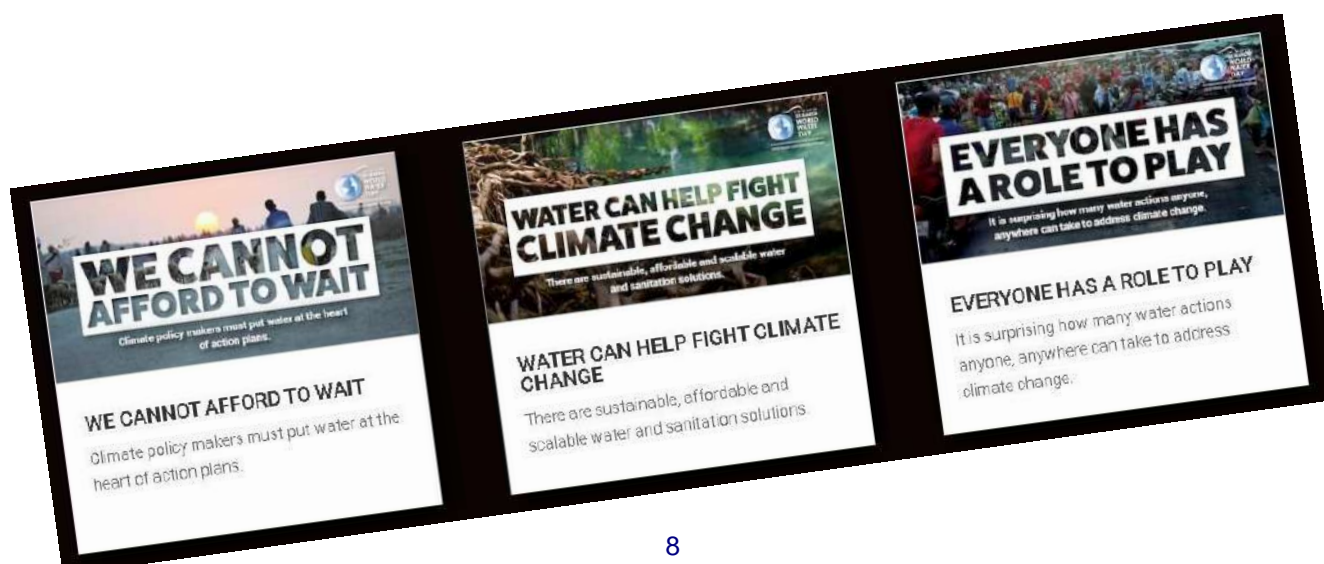
CLUB ALPINO ITALIANO (CAI)

Mountains to live, mountain to know

To tackle it with respect and knowledge

For: Primary and Secondary (both grades) Schools

*Operators: Giovanni Margheritini and Bruno Agosti
CAI Mantova – Comitato Scientifico Sezionale*





LABTER-CREA RETE DI SCUOLE (NETWORK OF SCHOOLS) MANTOVA

Labter-Crea launches the “WATER AND CLIMATE CHANGE” PHOTO SAFARI



Climate change is an extremely contemporary theme. You are invited to reflect on the inextricable connections between water and climate change.

“Climate change is ramping the pressure on water bodies. From floods to drought, to the acidification of the oceans and sea level rise, it is forecast that the impact of climate change on water will intensify over the next few years”.

This is the beginning of the article *“Cambiamenti climatici e acqua. Oceani più caldi, inondazioni e siccità”*, published on the European Environmental Agency site, which we invite you to visit at this address: <https://www.eea.europa.eu/>. This article examines the connections between climate change and water that result in large scale impact; although the consequences have been felt at a much smaller scale for a while now.

Less and less rain falls on our territories. Lack of water in our rivers, canals, and lakes generates tensions among the users; the higher than usual temperatures, and the lower than usual rain and snow fall at higher altitudes cause the melting of glaciers. This, in turn, will result in a much decreased availability of water to keep our water courses alive and to enable unimpeded production. Less water for agriculture, industry, and aquatic ecosystems, whose life forms are increasingly destined to suffer. The 2020 WWD Photo-Safari invites students, kids, teachers and all citizens to document the effects of climate change on our territories (damage from drought, flood and catastrophic atmospheric phenomena) and the subtle, fragile, relationships between water and climate, as revealed by the presence of snow, dew, clouds, by the flow of rivers, canals, lakes and wetlands.

To participate, there's no need to rely on a travel agent. You only need to use your Camera, Smartphone or Tablet, walk about in your territory, shoot one or more photos of situations that reflect this theme, geolocalise the location, and send the photo with **title** and **caption** describing the scene or the situation.

The aim of this **Safari** is not to create an archive of technically flawless professional images. It is rather to bring to the attention of the public situations that reflect the inequitable distribution of the resource, or the resulting effects.

To **load your photos** and **participate** in the discussion:

- First of all register here: <http://www.globeitalia.it/index.php/fotosafari/modifica-utente?view=registration>
- Login here: <http://www.globeitalia.it/index.php/fotosafari/login>
- Connect to the photo-loading page <http://www.globeitalia.it/index.php/fotosafari/carica-foto>, adding details are required.

Before being published, your photos will be checked by the site administrators, against the event ethical code, and will then be immediately published online and on Telegram <https://t.me/labtercrea>. The photos will be available for voting online, with the outcome of the voting revealed on March 20th. Le foto saranno anche giudicate da una giuria, che stilerà la sua personale classifica. The **first three winners** in each category (two of) will receive a **scientific-naturalistic book** edited by Labter-Crea.

In aid of the less expert at things digital, short instruction videos are available here:
<https://cloud.owncube.com/s/i4mngQw9bMoZdsN>



Maximum photo size: **2 MB**

For geolocalisation, record (paper, phone) the coordinates of where you are by using a phone (smart or not) or any other GPS-enabled device on which you may read coordinates; alternatively, use the geolocalisation function in a Google Earth frame (coordinates visible in the lower frame), **or** using Google Maps (left click on mouse), to see a small photo appear, and, below it, the coordinates.

Box curated by Michele Baraldi, webmaster Labter-Crea Rete di Scuole Mantova
Contact: <http://t.me/MBMichele> e-mail: michele.baraldi@gmail.com

LABORATORIES AND ENVIRONMENTAL MONITORING



IISS "Bassa Friulana", Cervignano del Friuli (UD)

Indirizzo Chimica Materiali e Biotecnologie (Materials Chemistry and Biotech)

Leader in the National network of GLOBE ITALIA Schools

Stand 1

AGENDA 2030 - Sustainability: innovation, circular economy, job market

Curated by the mixed team Wake up Europe

Teacher: Teresa Caimè Saporito

Stand 2

CITIZEN SCIENCE: it's not just air we breathe

Curated by Class 2CHIA

Teacher: Vita Alba Mandalà

Stand 3

CITIZEN SCIENCE: clouds and climate change – Let's read the sky with an app

Curated by Class 2CHIB

Teacher: Giusy Fasano

Stand 4

ANTHROPOGENIC EFFECT: surface waters monitoring

Curated by Class 3CHIA and Class 3BIAA

Teachers: Nicoleta Melnic, Stefano Rigonat

Stand 5

THE WATER WE BREATHE: a physical model of the water cycle

Curated by Class 3CHIA and Class 3BIAA

Teacher: Paola Zanon (Teacher Trainer of GLOBE ITALIA and Secretary of Associazione GLOBE ITALIA)

All activities suitable for all students and citizens

The delegation from Friuli will be joined by **Prof. Lorella Rigonat**, National Coordinator of the GLOBE ITALIA School Network and President of the Associazione GLOBE ITALIA, representing GLOBE ITALIA Staff from Friuli: Prof. Maria Pia Coceano and Prof. Graziella Mocellin (both Teacher Trainers)

For more information and/or joining contact GLOBE ITALIA - IISS Bassa Friulana: rigolory@yahoo.it



ISIS "Brignoli Einaudi Marconi", Gradisca d'Isonzo (GO)

Indirizzo Tecnico Agrario (Agricultural Techniques)

School belonging to the National network of GLOBE ITALIA Schools

Stand 1

CLIMATE CHANGE VS LAGO DI DOBERDO': case study and hydrogeological model of an at-risk ecosystem

Curated by Class 2BB

Stand 2

WATER QUALITY: biomonitoring of surface waters (I.B.E.)

Curated by Class 3VE

Stand 3

WATER QUALITY: chemico-physical monitoring of surface waters

Curated by Classes 2AB, 2CB

Presentations are aimed at all students and citizens

Teachers: Elisabetta Sdrigotti, Rossana Paternich, Monica Corbato, Carmela Resta, Laura Cettolo.



**LICEO SCIENTIFICO STATALE
"ANNIBALE CALINI" – BRESCIA
& Project Partner**

The Liceo Scientifico Statale "A. Calini", Brescia, is involved in two Erasmus+ projects with environmental themes:

- The **Written On Water – WOW** Project, which studies surface waters (chemistry, physics, biology geomorphology) and involves Croatian and Polish students: <https://www.writtenonwater.eu/>



- The **ALPS4NATS** Project, which studies environmental sustainability in alpine environments (agriculture, tourism, biodiversity and environmental parameter) and is a partnership between French and Slovenians.

The awareness of the impact of environmental matters on human populations has often led to hasty interventions, not often suitably researched, leaving little time for study and research. Among other recent critiques, we draw your attention to bioplastics, produced often by subtracting soil to food production, like it happens with corn, used to produce biogas.

Building on the need to divulgate scientific knowledge, and increase environmental awareness, the Liceo "Calini" proposes some sampling experiences, integrated with reflections and provocative thoughts to stimulate new ideas to save the planet.

The stand will be managed by those students who participated in Erasmus+ projects, with the support of their Teachers.

1. **Sedimentology**
2. **Some physical sampling devices**
3. **The ideas blackboard**

Project contact: BOZZONI Mauro bozzonim@libero.it 0039 328 7220 276

Liceo scientifico di Stato "A. Calini"

Member of UNESCO Associated Schools

Via Monte Suello 2 - 25128 Brescia (BS) • Tel. 030 390249 - Fax 030 396105

<https://www.liceocalini.edu.it/calinipress/>





LICEO CLASSICO E LINGUISTICO "VIRGILIO" MANTOVA

ACTIVITY 1: "THE PHYSICO-CHEMICAL PROPERTIES OF WATER"

Brief description: soap bubbles as a tool to understand the physico-chemical properties of water.

From: 09:00

Duration: this activity is repeated frequently during the day.

Audience: Primary and Secondary (1st and 2nd grade) Schools

Classes: 2CL , 2DL, 3DL linguistic, Liceo classico e linguistico "Virgilio" Mantova.

Teachers : Alice Curione, Marina Solci

ACTIVITY 2: MANTOVA FROM THE MIDDLE AGES UNTIL TODAY: THE HISTORICAL FRAMEWORK OF MANTOVA' HYDROLOGY UNTIL TODAY

Brief description: an excursus on Mantova's hydrological landscape from the Middle Ages until today

From: 09:00

Duration: this activity is repeated frequently during the day.

Audience: Scuola Secondaria di Primo Grado e/o Secondaria di Secondo Grado

Audience: Primary and Secondary (1st and 2nd grade) Schools

Classes: 2CL , 2DL, 3DL linguistic, Liceo classico e linguistico "Virgilio" Mantova.

Teachers : Alice Curione, Marina Solci

ACTIVITY 3: REFLECTION ON THE HIGH VALUE OF WATER RESOURCES

Brief description: starting from the analysis of the objectives of Agenda 2030, the students present their reflections on the responsible use of water as a resource, also from the ethical and moral perspectives.

From: 09:00

Audience: Primary and Secondary (1st and 2nd grade) Schools

Classes: 2CL , 2DL, 3DL linguistic, Liceo classico e linguistico "Virgilio" Mantova.

Teachers : Alice Curione, Marina Solci

ACTIVITY 4: STATISTICAL ANALYSIS ON CLIMATE CHANGE

Brief description: statistical analysis of rainfall data and correlation with climate change.

From: 09:00

Audience: Primary and Secondary (1st and 2nd grade) Schools

Classes: 2CL , 2DL, 3DL linguistic, Liceo classico e linguistico "Virgilio" Mantova.

Teachers : Alice Curione, Marina Solci





IS "STROZZI", SAN BENEDETTO PO

HOW ARE YOU? DEAR LAKES!

Lakes are characterised by a slow and small exchange of water volumes, in comparison with rivers, and therefore have a higher tendency to accumulate pollutants. This characteristic, added to the exposure to runoff of many different types, can have highly negative effects on water quality in lakes.

Knowing the state of health of our lakes is of utmost importance, to understand water quality patterns and to sensitize the public towards improving its behaviours, to avoid worsening such dynamics any further.

Preliminary field activities

Students from Class 2AS, IS Strozzi San Benedetto Po, will participate to WWD 2020 presenting their results. Six students will gather samples from the Mantova lakes (predetermined locations) and at the Andes jetty in Pietole. The students will run chemico-physical water analysis in situ. An Opel Vivaro bus will support local transport. Teachers Prof. Alessia Boni, Prof. Angela Capobianco and Technical Assistant Paolo Mazzucco will support the students.

Preliminary laboratory activities

In the school's laboratories, students will analyse samples collected during curricular activities and will run a germination test by sowing and monitoring indicator plants on selected samples.

Students will prepare posters with tables and figures that discuss the results of the analysis.

Activity at WWD 2020 - Fiumi di Primavera

The posters and results will be presented by the same students, at the meet. Visitors will be taken through demonstrations of the laboratory techniques used in this project.

Class: 2 AS

Teachers: Alessia Boni, Angela Capobianco and Paolo Mazzucco

IS "STROZZI", MANTOVA

EVALUATION OF PHYTOTOXICITY IN MANTOVA LAKES WATERS

Surface waters are intensely used in agriculture. Polluted waters are in conflict with the commercial requirements of agricultural production, aimed to ensuring high quality products are put in the market, and with the health of the population those products are destined for. Maintaining high levels of control over the quality of water is therefore increasingly important.

This is the focus of the activity presented by students from IS "Strozzi", Mantova, Classes 3D and 3E.

Preliminary field activities

At least 10 days ahead of the event, 7 students will collect water samples for in-situ analyses at 4 pre-established locations: Belfiore, Porto Catena, Ponte di San Giorgio and Osone - Grazie. The School's bus will be used for local transfers. Accompanying teachers: Prof. Massimiliano Ghizzi and Technical Assistant Mazzucco.

Preliminary laboratory activities

The students will analyse the collected samples in the school's laboratories during curricular activities.

The students will also sow indicator plants (cucumber and water cress) in selected water samples, and in control water samples (clean and polluted) (sampled from Osone – Grazie area).

Activity at WWD 2020 - Fiumi di Primavera

The collected and photographed results will be shown by the same students along the Lungolago Gonzaga. Visitors will be taken through demonstrations of the laboratory techniques used in this project.

Time: 9:00 – 13:00

Audience: All school levels

Classes: 3 D e 3E IS Strozzi, Mantova

Teachers: Massimiliano Ghizzi, Paolo Mazzucco



ITET "MANTEGNA" MANTOVA

WATER IS LIFE AND LIFE IS IN THE WATER: OBSERVATIONS THROUGH A MICROSCOPE

You're in for a surprise, observing the unexpected microcosm that populates surface waters.

Audience: Primary and Secondary (1st and 2nd grade) Schools

Class: 4A Settore Tecnologie Ambientali ITET "Mantegna" MN

Teachers: Adele Binotti, Cinzia Manicardi

MICROSCOPIC LIFE NEEDS WATER TOO: OBSERVATIONS THROUGH A MICROSCOPE

So thirsty!!! How often have we heard or said these words in summer, after physical activity or hours after we last drank? Animals travel many kilometers to find water, and plants dig their roots as far as they can, or put in place other ingenious strategies to gather the little humidity which is present in the soil or in the air in a desert. And what about micro-organisms? Even microorganisms need water. This is what the students of the Sanitary section of the school will demonstrate.

Audience: Primary and Secondary (1st and 2nd grade) Schools

Class: 3BS Settore Sanitario ITET "Mantegna" MN

Teachers : Stefania Roversi e Maria Grazia Farinelli

A PLANET TO SAVE

The frog leaps....but not for joy!!!!



1ST GRADE SECONDARY SCHOOL OF BUSCOLDO - IC CURTATONE IN COLLABORATION WITH ENG. MARCO FAGGIOLI (freelance)

THE CARDS OF CHANGE

Exposition of thematic cards (planispheres), that highlight the effects of atmospheric and oceanic warming, the reduction in snow and ice coverage and the average rise in sea levels. The activity was prepared in a multidisciplinary context, facilitated by the interaction of Science, Technology, Italian and Art teachers.

CAUSES AND EFFECTS

- Anthropogenetic causes of the current acceleration of climate change (with particular attention to greenhouse gas emissions).
- Human behaviours that exacerbate the negative consequences of climate change: soil depletion and use, deforestation, mobility choices and, in more general terms, the current production and consumption models.
- The effects we can observe: temperature rises and changes in rainfall distribution.

EFFECTS OF CHANGE IN THE MANTUAN TERRITORIES

Analysis of flow changes in water courses and in the function of Consorzio di bonifica (water course management authority).

FANTASTIC WATER!

Used to its presence, we don't usually dedicate to water the attention it would deserve on the basis of its unique properties. Students at this stand promise they will show you some key properties, through demonstrations, which they are certain will change your relationship with this magnificent natural resource.

Classes: 1A, 1D, 1F, 2A 1st grade Secondary School, Buscoldo, IC Curtatone

Teachers :Cristina Vighi, Barbara Cortelazzi, Massimo Giacomini, Salvatore Lo Piccolo, Nazzarena Bellini, Maria Pia Ghidini, Nunzia Bene, Stefania Lombardini, Clea Menna, Nicoletta Facchini, Anna Rita Marsella, Emanuela Cazzaroli.



1st GRADE SECONDARY SCHOOL, IC GOITO

THE RIGHT TO A HAPPY CLIMATE!

A 36 box board game (gioco dell'oca), with questions related to causes, effects and solutions for an ideal climate, with prizes (lollies?!?). The "board" is a piece of fabric painted by the students, and the placeholders are built by the students – students in a race for their rights!

We invite all, young and not, to put themselves to the test, to play and reason on the right we students have, but that all should claim back and roll up their sleeves to enact: the right to a HAPPY CLIMATE!
Rules will be communicated on the spot!

From: 9:00

Audience: Primary Schools, 1st grade Secondary Schools, citizens

Class: 1B, Scuola Secondaria di Primo Grado, IC Goito

Teachers : Giulia Vaccari, Elena Ravani and Stefano Beduschi

FLOODS IN THE HISTORY OF MANTOVA



1st GRADE SECONDARY SCHOOL OF RONCOFERRARO I.C. RONCOFERRARO

A HISTORY OF FLOODS AND MANAGEMENT OF THE MANTUAN AND SURROUNDING TERRITORIES

At the end of a few months' historical research, the students of Istituto Comprensivo Roncoferraro have collected documentation on flood events that have been recorded in our territories since the second half of the 1500s. Now we talk about flash storms (bombe d'acqua), very intense rainfall events, but there have been floods that have seriously damaged the territory of Mantova, this precious part of the Pianura Padana. The students will illustrate historical events and the resulting damage, using age-old photos and maps.

Audience: all school levels, including Kindergarten.

Curated by Class 2C Scuola Secondaria di Primo grado di Roncoferraro, Istituto Comprensivo Roncoferraro.

Teachers : Valentina Dall'Olio, Marco Mantovani, Serena Citriniti.





PRIMARY SCHOOL OF PIUBEGA AND CERESARA – 1ST GRADE SECONDARY SCHOOL PIUBEGA - 1ST GRADE SECONDARY SCHOOL OF GAZOLDO DEGLI IPPOLITI - IC CERESARA
I.C.Ceresara – Primary (3rd year) and Secondary School, Piubega – Primary School (5th year), Ceresara – Secondary School (2nd year), Gazoldo degli Ippoliti

ACTIVITY 1

Thematic games: **“Climate change”**

Audience: Primary and 1st grade Secondary Schools

Classes from Sc.Secondaria di Piubega e Gazoldo degli Ippoliti-I.C. Ceresara

Teachers: from the Sc.Secondaria di Piubega e Gazoldo degli Ippoliti - Coordinator: Isabella Mafessanti

ACTIVITY 2

Let's design and build a 3D model of a sustainable city – Display

Audience: Primary and 1st Grade Secondary School students

Classes: 2nd year students, Scuola Secondaria di Piubega I.C. Ceresara

Teachers: from the Sc.Secondaria di Piubega

ACTIVITY 3

Let's open a window on....

Display of 3D objects designed and built by the students, on the theme of greenhouse effects and climate change.

Audience: Primary and 1st Grade Secondary School students

Classes: 1st and 2nd year students, Scuola Secondaria di Piubega e Gazoldo degli Ippoliti- I.C. Ceresara

Teachers: from the Sc.Secondaria di Piubega e di Gazoldo degli Ippoliti

ACTIVITY 4

“Piubega News” Extraordinary WWD Issue!

Distribution of printed copies.

Audience: Primary and 1st Grade Secondary School students

Classes: 3rd year students, Scuola Secondaria di Primo Grado di Piubega I.C. Ceresara

Teachers from the Scuola Secondaria di Primo Grado di Piubega I.C. Ceresara

ACTIVITY 5

Our natural habitat, a guarantee of quality of life, threatened by overheating

Making and display of graphic-artistic artefacts on Flora&Fauna and climate change. Climate change affects plants' blossoming time and their diffusion habitats and affect animal's hybernation and migration patterns. Global warming interferes with pollination processes: when flowers blossom too early, the two main actors are misaligned, and, as the time lapse between them increases, the plants' reproductive success decreases.

Audience: Primary and 1st Grade Secondary School students

Classes: 1st and 2nd year students, Scuola Secondaria di Piubega e Gazoldo degli Ippoliti- I.C. Ceresara

Teachers: from the Sc.Secondaria di Piubega e di Gazoldo degli Ippoliti

ACTIVITY 6

“What's in the air” the atmosphere and its pollutants.

Audience: Primary and 1st Grade Secondary School students

Class: 3rd year students, Primary School di Piubega - I.C. Ceresara

Teachers: from the Sc.Primaria di Piubega

“Futuristic Energy”

Audience: Primary and 1st Grade Secondary School students

Classes: 5th year students, Primary School di Ceresara - I.C. Ceresara

Teachers: from the Sc.Primaria di Ceresara

Kite-building laboratory

Audience: Classi di Primary School e Secondaria di Primo Grado

Classes: 5th year students, Primary School di Ceresara - I.C. Ceresara; 3rd year students, Primary School di Piubega - I.C. Ceresara

Teachers: from the Sc.Primaria di Ceresara e di Piubega



IS FERMI MANTOVA – CHIMICA MATERIALI E BIOTECNOLOGIE

BIO-CORROSION

A microbial fuel cell (MFC), is a bio-electrochemical system that generates current, mimicking the bacterial interactions you find in nature. The current it produces, albeit very small, can be used directly to monitor the same water treatment process. We are studying ways to optimise this device.

Audience: final years of Primary Schools, Secondary Schools (first and second grade)

Curated by: Class 3C CH, Indirizzo di Chimica Materiali (Materials Chemistry), Istituto Superiore E. Fermi MN

Teacher: Carlo Sai

PROGETTO RIO SCUOLE

Presentation of the 2018-19 Canale Rio monitoring campaigns. Rio is the water course that crosses the city, carrying water from the Lago Superiore (Superior/Upper Lake) to the Lago Inferiore (Lower Lake), which meet in Porto Catena. At the same time, a team from the class will perform live water sampling and analysis in the canal, in collaboration with ARPA Lombardia Mantova (Dott. Alessandro Morelli), Parco del Mincio e Guardie Ecologiche Volontarie (Volunteer Ecological Guards, Mr. Sergio Ferrari).

Audience: last years of Primary Schools, Secondary Schools (first and second grade)

Curated by: Class 4CBIO dell'Indirizzo di Chimica Biotecnologie (Chemistry Biotechnology, Istituto Superiore E. Fermi MN)

Teachers: Cristian Soncini and Adelia Pezzini

FOR SUSTAINABLE CITIES



IS FERMI MANTOVA – CORSI DI MECCANICA E CHIMICA (MECHANICS AND CHEMISTRY)

MODEL OF WATER PHYTO-DEPURATION, INTEGRATED WITH A RENEWABLE ENERGY PLANT

The phyto-purification model won 1st prize in the 2015 Rivers in Spring competition supported by TEA Acque and Labter-Crea. The model has been profoundly reviewed and amended, with an important addition: the renewable energy plant. Working in the Mechanics laboratories of the Institute, the students installed photovoltaic panels which, connected to a battery, make the plant energetically self-sufficient. The energy stored in the battery powers the pumps used to recirculate water, as well as providing lighting for the plant and the connected house.

Audience: students of all levels, and all citizens

Curated by: 4th and 5th year (Mechanical, Energy Sector) and Class 4CBIO students (Chemistry and Biotechnology), Istituto Superiore E. Fermi MN

Teachers: Luciano Galati and Adelia Pezzini



UN WATER
22 MARCH
**WORLD
WATER
DAY**



SCUOLA SECONDARIA DI PRIMO GRADO "PARAZZI", IC "PARAZZI", VIADANA

Each class proposes a scientific or theme-play laboratory to reflect on the properties of water, and its distribution and availability in the world, in response to human needs.

CLASS 1A: LET'S FRAME WATER!

Thematic frames will be displayed and presented, focused on the topic of water matters; they will serve as photo frames for your own Selfie and for discussion!

From: 9:00

Audience: Primary and 1st Grade Secondary School students

Teacher: Mario Polisano

CLASS 1B: LITTLE....BUT GOOD?

Brief explanation on the quality of water.

From: 9:00

Audience: Primary and 1st Grade Secondary School students

Teachers : Luisa Campi

CLASS 1C: SNOW IN SPRING?

Maths/science laboratory on snow: symmetry, properties of water...

From: 9:00

Duration: 15 minutes approx., 5 minutes change over

Audience: Students of all levels

Teacher: Margherita Rossi

CLASS 1D: IS THE SEA MELTING?

Experiment on the acidification of water, in an environment rich of CO₂. Consequences of acids on marine organisms.

From: 9:00

Duration: 20 minutes approx.

Audience: Primary School students

Teacher: Davide Pezzoni

CLASS 1: THE SEA IS RISING

Experiment which shows what happens when water temperature rises.

From: 9:00

Duration: 15 minutes circa

Audience: Primary School students

Teacher: Barbara Casorati

THE CHANGED ENVIRONMENT



SCUOLA PRIMARIA DI PONTI SUL MINCIO ISTITUTO COMPRENSIVO VOLTA MANTOVANA

EARTH, WATER AND MAN - EDUCATIONAL LABORATORY

Activity 1 - THE MINCIO RIVER AS IT WAS AND HOW IS TODAY

Illustration of the route of the Mincio river through a model made by the students; observation, through documents, of the changes made by man in the local area

Audience: Kindergarten classes, Primary and 1st Grade Secondary School students

Curated by: Classes 3thA, 4thA, 2ndA Ponti sul Mincio Primary School

Teachers: Ada Boscaini, Gabriella Zerbi, Teresa Arena, Manuela Di Rocco, Sonia Bassi

Activity 2 - AUTOCHTHONES AND ALIENS

Goose game aimed at knowing the flora, fauna and "alien" species present in our territory

Audience: Kindergarten classes, Primary and 1st Grade Secondary School students

A cura della Classe 2A

Teachers: Katia Zuccotto, Chiara Todeschi

Scuola Primaria Ponti sul Mincio, IC Volta Mantovana



LICEO "ISABELLA D'ESTE" INDIRIZZO SCIENZE UMANE

PLAYFUL LABORATORY AND THEATRICAL ACTIVITIES FOR THE YOUNGEST

Space for play and creativity, inspired by water, with the objective to sensitise the youngest towards the theme of water waste. The activities will be tailored to the age of the young participants.

We will organise games (and magic tricks!) and small laboratory activities with water which need to be completed with the least loss of water.

An animated reading and a small theatre play will see water droplets as protagonists.

Small creative laboratories will allow participants to make their own thematic gadgets.

From 10.00 to 13:30

Audience: Kindergarten and Primary School students.

Classes: 3AU and 3CU, sezione Scienze Umane (human sciences) – Liceo I.d'Este Mantova

Teachers : Paola Saccalani, Lorna Dall'Acqua, Cinzia Zanin



ISTITUTO TECNICO "C. D'ARCO"
ISTITUTO SUPERIORE "D'ARCO – D'ESTE" MANTOVA

Activity to be defined

WATER AND HUMAN IMPACT

**INSTITUTE FOR FRONTIER MATERIALS, DEAKIN UNIVERSITY,
GEELONG, VICTORIA, AUSTRALIA**



ALIENS IN THE HYDROSPHERE – THE JUMPER FOUND AMONG THE FISH

LABORATORY ACTIVITY

The participants are invited to bring along water samples (250 ml are sufficient) collected from their washing machine (best if collected during rinse cycle of a fleece sweater, fleece or wool or cotton blanket – or mixed washing) to observe and identify their contents: natural fibres, synthetic fibres, microcapsules, etc.

The samples will be filtered and the participants will be able to observe their own samples under a digital microscope. This activity will allow to directly observe the impact of one single wash, to observe and learn to identify synthetic and natural fibres. The participants will be able to take with themselves their own filtered samples to observe them at home or at school. This activity is aimed to sensitise the public towards the sources of artificial pollution of the hydrosphere.

Key sectors of research for the Institute for Frontier Materials in Deakin University are aimed at: 1) identifying and designing advanced textile treatments that prevent and inhibit loss of microfibres into the environment, and 2) designing water repellent treatments that do not involve the use of fluorinated compounds, which are widely known as extremely damaging for the environment. This research is aimed at developing treatments that have as their ultimate aim the protection of natural resources.

Samples collected in situ and specially prepared will be available on site.

Duration: 30-45 minutes.

Audience: kids, students of all ages, teachers, citizens and the general public

Curated by **Alessandra Sutti**, Deakin University, Institute for Frontier Materials, Geelong, Victoria (AU)

IMAGE DISPLAY

Images from the “Aliens in the hydrosphere – Isola d’Elba 2019” campaign, which presents data, photos and some high magnification images of fibres and detritus to help identification of microplastics and microfibres.





**JOINT RESEARCH CENTER, JRC, ISPRA (VA) EUROPEAN COMMISSION
CENTRO DI RICERCA COMUNE DELLA COMMISSIONE EUROPEA**

ACTIVITY 1

"HAVE YOU SEEN AN ALIEN?" BOARD GAME

The visitors are invited to identify non-native species of interest (and threat) to the aqueous ecosystems, and to associate them to brief descriptive cards, place of origin and mode of introduction to Europe. This activity will stimulate questions from the public on themes related to biodiversity.

Audience: kids and students of all levels, teachers and citizens, general public

*Curated by Researchers and Technicians of the Institute: **Eugenio Gervasini and collaborators***

ACTIVITY 2

Smart App "Invasive Aliens Europe"

Demonstration of the "Invasive Aliens Europe" Smart App, which allows to report the presence of invasive species of European interest (See European Legislation 1143/2014 on invasive alien species and info on the European system of information on non-native species in Europe (EASIN)).

Audience: kids and students of all levels, teachers and citizens, general public

IMAGE DISPLAY

Images depicting activities of the centre will be on display.

Curated by researchers and technicians of the institute



ISTITUTO DI BIOECONOMIA

DEL CONSIGLIO NAZIONALE DELLE RICERCHE (IBE-CNR) DI FIRENZE

HOW A PLANT USES WATER

Activity 1: BREATHING MEASURES WITH ANALYZER GAS ON STRESSED PLANTS

Activity 2: LYMPH FLOW MEASUREMENTS

Audience: 1st and 2nd Grade Secondary School students, citizens

Researches: Antonio Raschi



**DIPARTIMENTO DI SCIENZE CHIMICHE, DELLA VITA E
DELLA SOSTENIBILITÀ AMBIENTALE, UNIVERSITÀ DI PARMA
E ISTITUTO PER IL RILEVAMENTO ELETTROMAGNETICO DELL'AMBIENTE CNR-IREA**

PLANAR OPTODES

This activity displays a novel and very elegant way to study how water-plant roots are able to actively transfer oxygen to sediments, causing a series of cascaded events, which are positive actors in determining the workings of aquatic ecosystems and are advantageous for biodiversity.

Vallisneria spiralis, the model macrophyte

The numerous ecosystem services effected by this autochthonous plant are described. This plant is well represented in Mantova, but it's still considered by many a "weed to rid of".

This exhibit describes the anatomy and physiology of this plant and the key elements that make it highly plastic, *i.e.* adaptable to very different contexts, and able to help detoxify the sediments in the lakes of Mantova.

From 9:00

Audience: students at all School levels

Curated by Marco Bartoli, Sara Benelli, Erica Racchetti (Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale, Università di Parma) and Monica Pinardi (CNR-IREA)

Operators: Marco Bartoli, Sara Benelli and Monica Pinardi

5 AN ALTELIER ON SCIENCE AND ENVIRONMENT FOR CURIOUS MINDS

ENJOYABLE AND AMUSING SCIENCE



**MASTeR (Mantova Ambiente Scienza Tecnologia e Ricerca:
un atelier per menti curiose)**

SCIENCE AND NATURE

On the lake shore to play with science!

Engaging experiments to discover the properties of water, necessary element for life... and other games to have fun with science, together with MASTeR operators.

Audience: Kindergarten, Primary and 1st Grade Secondary School students

When: 9.00 - 13.00 on rotation

Operators: MASTeR



22 MARCH
WORLD
WATER
DAY

6 ADMINISTRATIVE BODIES, PARKS, AGENCIES, ORGANISATIONS FOR MANAGEMENT, CONTROL AND PROTECTION OF WATER AS A RESOURCE, AND FOR ENVIRONMENTAL PROTECTION

OBJECTIVE: THE REGION

REGIONE LOMBARDIA UFFICIO TERRITORIALE VALPADANA SEDE DI MANTOVA



REGIONE LOMBARDIA INFORMS

Regione Lombardia is part of the regional Network for environmental education, in connection with the General Environment and Climate Directorate, and acts as antenna in the Europe Direct di Regione Lombardia network. Regione Lombardia will distribute informative materials, tailored to students and citizens, which describe the relevant actions of Regione Lombardia and the European Commission (also in connection with the Joint Research Center, JRC, Ispra). Examples of publication titles below.

- Regional environmental education guidelines and actions
- Lupo Alberto, 10 simple lessons on the wolf (Lupo Alberto)
- Actions for the Climate – European Union policies

When: 9.00 - 13.00

Audience: students of all School levels

Operators: Regione Lombardia: Sabrina Filetti, Carla Azzali and Fabrizio Fornari

AGENDA 2030 FOR SUSTAINABLE DEVELOPMENT

COMUNE DI MANTOVA, SETTORE PUBBLICA ISTRUZIONE



TOWARDS AGENDA 2030: GOALS FOR THE VERY YOUNG

The Public Education sector of Comune di Mantova (local Council) presents some activities prepared by 3-6 y/o children from council kindergartens, as part of this school year curriculum, which centres around the understanding of some of the Agenda 2030 goals. The sector will take advantage of Alkémica, an organisation that is already working with the children.

Audience: Kindergarten and Primary School children.

Curated by: Settore Pubblica Istruzione del Comune di Mantova, with help from Alkémica operators

AGENDA 2030 FOR SUSTAINABLE DEVELOPMENT

COMUNE DI MANTOVA, SETTORE AMBIENTE

PROJECT C-CHANGE



In the European Project C-CHANGE, a “model city” transfers concepts and habits of good practice to other cities, which in turn absorb the concepts and adapt solutions to their own context. Good practice include ways to reduce CO₂ emissions related to cultural events and infrastructure. The “model city” is Manchester. Mantova, one of the project participants, has involved a large number of local associations. The Environmental Sector of Council, in charge of C-Change, will conduct an investigation on the emissions linked to the mobility of the Rivers in Spring 2020 participants, to identify the possible critical aspects to tackle in future editions. The stand will present materials related to C-CHANGE and The Solar Registry, activated to identify the potential of renewable energy production from photovoltaic panels installed on the roofs of local buildings.

Curated by: Settore Ambiente, Comune di Mantova

PROVINCIA DI MANTOVA

WATER...LET'S TREAT IT WELL!

Some slides, tailored for Primary and Secondary Schools, will be used to describe the cycle of water and uses of water in our society and province territory, as well as the role of our woods and our river banks in improving the quality of water in our rivers and waters.

The classes will be invited to reflect on the environmental impact of daily human activities unfolding around them, and on the ecosystem services sustained by natural environments. The participants will be able to ask questions on aspects of interest, on the theme of water purification for release in the water was, and on the role of dedicated areas for the protection of the ecological and environmental quality of water.

Personnel from the Office for Protection of Water from Pollution within the Province of Mantova will present the materials to the schools.

The Provincia di Mantova will present some panels describing the cycle of water and its uses, prepared by the MA.GO. Project.

From 9:00 to 13:00. **Each activity will last 20 minutes.** There will be 3 projections per hour, in the following order: Primary School, 1st Grade Secondary School, 2nd Grade Secondary School. There will be 4 repeats between 9:00 and 13:00.

Audience: **Students of all school levels.**

For each activity there will be **25-30 available seats.**

Curated by: Chiara Beatini, Sandro Bellini, Paola Marazzoli, Lara Massalongo, (Provincia di Mantova - Ufficio Tutela Acque dall'Inquinamento)

Please book by email or phone: Chiara Beatini - Provincia di Mantova, Ufficio Tutela acque dall'inquinamento - Phone 0376 204 414 email: acqua@provincia.mantova.it





CCV - COMITATO DI COORDINAMENTO PROVINCIALE DI PROTEZIONE CIVILE della PROVINCIA DI MANTOVA

GOOD PRACTICE IN CIVIL PROTECTION

The most effective way to defend yourself from a danger is to know the associated risks. A TV or radio ad is not sufficient to get to know flood risks. Volunteer communicators will present:

"I don't run any risks – good practice in civil protection" the information campaign promoted by the Dipartimento Nazionale di Protezione Civile.

From: 9.00, restarts every 30 minutes.

Duration: 15-20 minutes, with 10 minutes for change over.

Audience: 2nd Grade Secondary Schools

Presented by: volunteers, Protezione Civile

ACTIVITY 2: TELE-RADIOCOMMUNICATIONS WITH THE COLONNA MOBILE (MOBILE TEAM) PROVINCIALE OF PROTEZIONE CIVILE

This will involve showing the radio communications that take place in case of an emergency and will demonstrate the function and use of each device and apparatus. Operator volunteers will present:

The mobile transmission centre of the Colonna Mobile (mobile team) Provinciale of Protezione Civile of the Province of Mantova.

From: 9.00 – restarts every 30 minutes.

Duration: 15-20 minutes, with 10 minutes for change over.

Audience: 1st Grade Secondary Schools

Presented by: volunteers, Associazione Club Virgiliano

PARKS TO LIVE



PARCO DEL MINCIO

PARCO DEL MINCIO INFO POINT

Distribution of informative materials about the Parco del Mincio, tailored for schools and citizens.

Curated by Parco del Mincio, segreteria didattica (educational secretariat) and Guardie Ecologiche Volontarie

LET'S MAKE A TEST: AN ECO-GAME OF NATURE

Is the perception we have of the "value of nature" and the services it renders to mankind correct?

A path with squares with contingencies and opportunities recomposes a set of information that can be acquired on this theme by playing with a "stainless" formula borrowed from Monopoly but revised and adapted to the contents dedicated to natural capital and ecosystem services.

The students of the Scientific 3/4 class of the Redeemer of Mantua conceived it as part of the school-work alternation path carried out in the last two years with the Mincio Park and in the Park location they will be the ones to "test" it with schoolchildren and students who will land at the Park station. A professional prototype of the game has been created and will be used during the day. The game does not yet have a name: those who participate in the test will be able to become the protagonists of a short survey that will help the Park to choose it!

Duration of the activity: 30 ", booking recommended (Didactic Secretariat of the Parco del Mincio 0376 391550 int. 20 in the mornings of Monday, Wednesday, Friday).

PARCO OGLIO SUD

THE PARCO OGLIO SUD, THE CULTURE OF THE RIVER AND ITS INHABITANTS

Curated by: operators, Parco Oglio Sud

PLANTS IN OUR AGRICULTURAL HERITAGE

Laboratory on the use of poplar trees and willows for the construction of common objects (trivets, bags, hats) and their use in agriculture.

Curated by: GEV, Parco Oglio Sud

THE OGLIO PROJECT: MACROINVERTEBRATES, THE MOST HIDDEN INHABITANTS OF THE RIVER

Distribution of material from the 4th edition of BIOBLITZ LOMBARDIA 2019, run by over 50 parks and reserves in Regione Lombardia, on May 18-19th 2019.

Curated by: Operators, Parco Oglio Sud

CLIMATE CHANGE



ERSAF, ENTE REGIONALE PER I SERVIZI ALL'AGRICOLTURA E ALLE FORESTE

WATER AND CLIMATE CHANGE: AGRICULTURE AND FORESTS.

Agriculture and forests, primary sectors, are continuously hit by the very harsh consequences of climate change (the Vaia storm, excessive rainfall that prevents normal agricultural practices).

Two educational laboratories:

1- The importance of water: a race to save.

2- Climate change that modifies natural cycles.

Display of brief cards describing low-impact agricultural practices and carbon storage in forests and soils.

Duration: 9:00-15:00

Audience: Students of all school levels.

Operators: Barbara Bertazzoni, Carla Bertezolo, Donatella Melani

ARPA LOMBARDIA (Environmental Protection Regional Agency)
WATER QUALITY

- ✓ SAMPLING AND ENVIRONMENTAL MONITORING: ON-FIELD DEMONSTRATION OF INSTRUMENTS AND ENVIRONMENTAL ANALYSIS METHODS: *sampling demonstration of surface and underground waters.*
- ✓ MEASURE OF ENVIRONMENTAL PARAMETERS USING PORTABLE INSTRUMENTATION, AND INTERPRETATION OF RESULTS.
- ✓ PRESENTATION OF A WATER PURIFICATION PLANT MODEL (SEDIMENTATION PROCESSES, FILTRATION, CLARI-FLOCCULATION)
- ✓ SIMULATION OF INFILTRATION OF UNDERGROUND WATERS
- ✓ SIMULATION (IN A TUB) OF THE DISPERSION OF A POLLUTANT, WITH MEASUREMENT OF THE CHANGING ANALYTICAL PARAMETERS.

AIR AND ENVIRONMENT

- ✓ DISPLAY OF MEASUREMENT METHODS FOR AIR QUALITY AND INDUSTRIAL EMISSIONS

MEASURES OF ELECTROMAGNETIC POLLUTION - NOISE
PRESENTATION OF WATER QUALITY MONITORING RESULTS

Curated by: Technicians, ARPA.

With support by: Operators, Laboratorio di Prevenzione ATS VALPADANA Sede di Mantova, to discuss topics of water sanitation

WATER - ENERGY
Within the ARPA LOMBARDIA area (Agenzia Regionale di Protezione Ambientale)
Water: LIGHT + FOOD + PLAY = CLEAN ENERGY FOR LIFE

From the wheels in mills to the hydroelectric plant.

The ever increasing adoption of renewable energy is one of the key paths to follow to counter climate change. The two exhibits, in the form of dynamic physical models, show two applications of hydroelectric energy, a key type of renewable energy.

EXHIBIT N. 1 THE MOUNTAIN MILL

It's a water mill, in which the grinding stones are moved by a paddle-wheel, which is activated by the water which flows down the sides of a mountain.

EXHIBIT N. 2 THE SUSTAINABLE JOY-RIDE FOR ALL THE KIDS IN THE WORLD

A Pelton turbine, fed by a pressurised water jet, powers an alternator which transforms the turbine's rotational movement into electrical energy. The so generated electricity illuminates the hydroelectric plant and an amusement park which has a vertical joy-ride. The ride carries kids upwards to the top of a tower from which they will be released in free fall. The fall is slowed by a magnetic brake, exactly like in a real joy-ride. The ride here is approximately 180 cm tall, and kids are represented by small dolls, which have skins of all different colours, just like in real life.

When: 9:00 - 15:00

Duration: Repeated during the day

Audience: Primary and Secondary Schools

Operator: Avio Ferraresi



CENTRO NAZIONALE CARABINIERI BIODIVERSITÀ "Bosco Fontana"

HOW CLIMATE CHANGE INFLUENCE THE DIFFUSION OF AQUATIC SPECIES

The Centro Nazionale Carabinieri Biodiversità "Bosco Fontana", is housed within the Bosco Fontana park. For the last 20 years they have been taking care of the study, conservation and management of the forest environments. A natural forest, in fact, is not only made up of trees, but also of habitats and microhabitats which are interconnected in a complex environment, able to support multiple forms of life. It is this complexity that guarantees high biodiversity. The aqueous environment of this Reserve, composed of wetlands, waterways and springs, belongs to this network and hosts a large number of animals (insects and amphibians as the primary inhabitants) many of which under threat of extinction.

After a brief introduction on biodiversity in aquatic and forest ecosystems, we will describe the negative consequences of climate change for native aquatic species. We will also describe how many alien species are instead favoured by the same phenomena, with a resulting imbalance and negative impact on ecosystems, economy and human health. Some alien species which are not yet stabilised, could become so and become invasive thanks to global warming, creating additional trouble for native ecosystems.

The participants will be able to use educational entomological boxes to observe alien species (present in our territories) in close proximity.

During the activity, the researchers from the centre will present two interesting projects: one volunteer project (www.life360esc.eu) and one citizen science project (www.innat.it), which engage citizens directly in the active conservation of natural environments.

When: 09.00 - 15.00 repeated cycle.

Duration: 30 minutes (duration dependent on number of participants).

Audience: students of all school levels

Operators: *Alessandro Campanaro, Marco Bardiani, Gianluca Nardi, Laura Spada, Ilaria Toni.*

ACTIVE MANAGEMENT OF INTERNAL SURFACE WATERS



CONSORZIO DI BONIFICA TERRITORI DEL MINCIO

A SHOW OF CLEAN WATER AND PUPPETS

An ancient form of folk art for highly interactive and modern communication. With his puppets, Maurizio Corniani will explain to the youngest the importance of the quality of water in everyday life, starting from their own actions. Fagiolino and Sandrone will argue, in their own way, on how each person's commitment contributes to guarantee high water quality: odourless, tasteless, colourless.

Audience: Kindergarten and Primary School children, but everyone can learn having fun!

When: 9:00 to 15:00.

Duration: 10-15 minutes. Repeated

Available seats: 100

No booking required.

Contact: Ufficio Stampa – ufficiostampa@territoridelmincio.it

FOR A WATER CULTURE: WATER/PURIFICATION AND WATER/ENERGY



TEA spa GROUP

VIVA L'ACQUA !

Promoting drinking of reticulated water and reducing consumption of single-use plastics.

TEA Acque Stand: informative materials, gadgets

AIPO - AGENZIA INTERREGIONALE PER IL FIUME PO**A PHYSICAL MODEL OF THE RIVER PO DELTA**

Display of a model of the River Po Delta, which has been Unesco heritage since 1999.

TRIALS ON HYDRAULIC RIVER MODELS

Display of laboratory activities

Printed materials for furthering your knowledge

Curated by Lorella Togliani

WATER AND HEALTH

**P.A.V. CROCE VERDE DI MANTOVA****WATER AND OUR ORGANISM: INDISPENSABLE SOURCE OF LIFE**

When we feel really thirsty, and drink a glass of water, we feel well; even after a nice shower. Or swimming in the crystal-clear waters of our seas. Water and wellbeing are very closely related in our daily experience and in our collective. Water doesn't only give us wellbeing and positive emotions, like those celebrated by many poets, writers, painters and musicians. Water gifts us life.

The operators by Gruppo di Formazione Scuole will guide the visitors through discovering the many roles water plays in the interaction with our organism, all the way to verifying that the definition of "blue gold" is fully justified. It is most important we limit waste of this precious resource, especially now that climate change is being felt and that, in the close future, we won't have much water to take advantage of.

The volunteers will setup a pneumatic tent, which is used in emergencies or during events which require to provide cover for many people.

ACTIVITY: Communication using displays, audio, visuals.

FROM: 9:00, starts every 30 minutes

DURATION: 15 minutes each display

AUDIENCE: Students from all School levels.

Curated by: gruppo formazione scuole P.A.V. Croce Verde di Mantova

Coordinator: Luca Bedulli

7 ASSOCIATIONS FOR THE ENVIRONMENT, CULTURE AND SPORT

RIO AS A COMMON GOOD PROJECT


**FONDAZIONE LE PESCHERIE DI GIULIO ROMANO
 AMICI DI PALAZZO TE E DEI MUSEI**

The Foundation, in collaboration with Comune di Mantova, is restoring the Pescherie di Levante and the functional access to the Rio. This is the first step to requalify buildings of extraordinary historical and artistic importance, as well as a canal, which was once of strategic importance for the life of the city. This action will give back these buildings and water way to the city, providing access and fruition by the citizenship.

Personnell from the Foundation will **distribute the "Mantova città d'acqua" DVD**, showcasing 5 videos related to the ongoing projects and the transformations underwent by this part of the historical city centre.

The funds raised will support the ongoing restauration works. Videos and DVDs were produced by the Amici di Palazzo Te e dei Musei Mantovani, an association that founded the Foundation and continues to support it.

Curated by Paolo Corbellani (President), Amelia Bianchi and Gilberto Nardi (Councillors)



SLOW FOOD FOR THE INTERNAL WATERS, AND FOR THE RECOVERY OF THE TRADITIONAL ICHTHYIC HERITAGE

The “condotta di Mantova” promotes initiatives oriented to sensitising the citizenship towards the recovery of the traditional ichthyic heritage. Recovery, unavoidably, involves requalifying water courses, especially those in the smaller network, which need to be protected from polluting run off, and need to be brought back to their native state using buffer zones. These are critical to the offer of multiple-service ecosystems and are sources of biodiversity.

Slow Food Operators will distribute to teachers the 2019 video “LE VALLI DEL MINCIO, UN DIFFICILE EQUILIBRIO” (the Valleys of Mincio, a difficult balance), which presents both the difficult issues faced by these precious wetlands and ways to counter them, in accordance with the Contract of Fiume Mincio.

The operators will engage the students and citizens in discussions on the themes of requalification of internal waters and water-heritage recovery.

Audience: all students and citizens.

Curated by: Operators, Slow Food Condotta di Mantova

LIFE IN VALLAZZA



CIRCOLO AMICI DELLA VALLAZZA

WILD BIRDS AND RIVER STORIES

Display of call-devices built using wet-land vegetation, used for hunting in the old days.

Recounting o river stories.

Curated by Operators del Circolo Amici della Vallazza

IN VIRGILIO’S WATERS

A tradition lost in time, the operators will prepare a display with hunting devices used in Vallazza and will show the visitors special build techniques and functions of the displayed objects.

VIDEO ON VALLAZZA

A video on the beauties of Vallazza.

Audience: students from all School levels, and citizens

*Curated by Paolo Tralli, Elvio Modena, Luciano Reggiani, Tiziano Pozzi
Operators, Circolo Amici della Vallazza*

INSIDE WATER



FIPSAS

FISH IN OUR WATERS

FIPSAS Mantova will display native fish in special troughs, and will describe the species main characteristics.

Audience: Students from all school levels

Curated by Guardie Giurate Ittiche, FIPSAS Mantova

THE APPEAL OF THE UNDERWATER WORLD

The Circolo Subacqueo Mantovano will use posters and special devices to show the physiology and technology of diving. They will describe the fantastic underwater environments which you can safely enjoy when you have a diving license.

Audience: Students of all school levels

Curated by: Società Circolo Subacqueo Mantovano

RIGHTS AND DISCRIMINATIONS



UNIVERSITA' VERDE "PIETRO TOESCA"

LABORATORY "DO NOT LEAVE ANYONE BEHIND"

REMS (Residences for the execution of safety measures) from Castiglione d. Stiviere, with a team of youngsters close the end of their stay, has asked for an intervention by the associations that collaborate on the Citizenship and Constitution Project, coordinated by CSV.

Among these, UNIVERSITA' VERDE, which has prepared the activity for WWD2020, with consideration for the objectives linked with the social re-introduction of their patients to responsible lifestyles and citizenship. A small team of kids will present the results of the laboratory on recycling plastic water bottles. This activity is already used in the residences as a therapeutic and rehabilitating program aimed to reach health and social objectives.

The recycling activity brought to the outside could represent the opportunity to discuss with the public the high quality of reticulated water, and the need to reduce consumption of plastic water bottles.

Being in Mantova during WWD 2020 is an opportunity for these children, who are following a special educational path, to put themselves to the test, during this activity in tight collaboration with their educators.

Audience: Primary and Secondary Schools

Università Verde Pietro Toesca

Operators: Marina Pini and Bruno Miorali

EXIBITIONS



PRO LOCO AMICI DI RIVALTA E PARCO DEL MINCIO

THE PARCO DEL MINCIO, THE VALLEYS

Life of the river

Associazione Pro Loco Amici di Rivalta

ENVIRONMENT, CULTURE AND SPORT



ASSOCIAZIONE ITALIANA CULTURA SPORT

THE ACTIONS OF THE ASSOCIATION

The representatives of the association will present activities run all over Italy, on the themes of water and environment.

Curated by representatives of the Association



NATURASI'

TOWARDS A LAND AND BIODIVERSITY RESPECTFUL AGRICULTURE

Is it possible to do alternative agriculture? Building networks of ethical-oriented agricultural producers and distributors? To whom:

- those who work must be remunerated fairly,
- giving up chemistry in favor of biological and biodynamic practices means opening the doors to biodiversity and at the same time experimenting with crops that save water, energy and can cope with climate change,
- Does allocating a part of the profits to support Steiner schools and shops open to disadvantaged or asylum seekers, with reintegration work paths, become an identity element?

At their desk, Naturasi operators will communicate the group's vision and practices to visitors.

Curated by representatives of the Foundation



DEAFAL ONG

GREEN SCHOOL PROJECT - A LOMBARDIAN NETWORK FOR SUSTAINABLE DEVELOPMENT

Curated by representatives of DEAFAL ong

LUNGOLAGO MINCIO – SCIENCE PARK

DOING SCIENCE ON THE LAKE SHORE: USING THE “IL PARCO DELLA SCIENZA” POCKET BOOK

The book is distributed at the welcome points. Classes and visitors can start exploring the park, using the scientific games located along the Lungolago Mincio with the support of the Comune di Mantova

CONTACTS



**LABTER-CREA Rete di Scuole
Mantova**

Cell. +39 333 8054 566

Email: labter@labtercrea.it

Web

**www.labtercrea.it
www.globeitalia.it**

Location of the event

Mantova, Lungolago Gonzaga



Schools of Labter-Crea Network

COMPREHENSIVE SCHOOLS (Kindergarten+Primary+1st Grade Secondary School)

IC BOZZOLO
IC CASTELGOFFREDO
IC CASTELLUCCHIO
IC CERESARA
IC CURTATONE
IC GOITO
IC MANTOVA 3
IC RONCOFERRARO
IC PARAZZI VIADANA
IC VOLTA MANTOVANA

2nd Grade Secondary Schools

IS *FERMI* MN (scuola capofila)
IS *STROZZI* di Palidano, MN e San Benedetto Po (amministrazione) (MN)
IS *GALILEI* Ostiglia (MN)
IS *GONZAGA* Castiglione delle Stiviere (MN)
ITET *MANTEGNA* MN

SUPPORTING PARTNERS

-
- AIPO
- AMICI DI PALAZZO TE E DEI MUSEI MANTOVANI
- APAM
- APCOA
- ARPA LOMBARDIA
- ARTICOLO 3 OSSERVATORIO SULLE DISCRIMINAZIONI
- ASSOCIAZIONE “ALKEMICA”
- ASSOCIAZIONE ITALIANA CULTURA E SPORT
- ASSOCIAZIONE PRO LOCO AMICI DI RIVALTA
- ASTER MN
- ATS VAL PADANA Sede di Mantova
- AVIS COMUNALE DI BAGNOLO SAN VITO
- Centro Nazionale Biodiversità Forestale “BOSCO FONTANA” Carabinieri
- CIRCOLO AMICI DELLA VALLAZZA
- CIRCOLO SUBACQUEO MANTOVANO
- CLUB ALPINO ITALIANO (CAI) MN
- COMITATO COORDINAMENTO VOLONTARIATO DI PROTEZIONE CIVILE DELLA PROVINCIA DI MANTOVA
- COMUNE DI BAGNOLO SAN VITO
- COMUNE DI PEGOGNAGA
- CONSORZIO DI BONIFICA TERRITORI DEL MINCIO
- ERSAF LOMBARDIA
- EUROTEND Ceresara
- FIAB (Federazione Italiana Ambiente e Bicicletta) MANTOVA
- FIPSAS MN E FLY FISHERS
- FONDAZIONE LE PESCHERIE DI GIULIO ROMANO
- GRUPPO CANOISTICO RIVALTESI
- GUARDIE ECOLOGICHE VOLONTARIE (GEV) - PARCO DEL MINCIO E PARCO OGLIO SUD
- ISTITUTO DI BIOECONOMIA (IBE) DEL CONSIGLIO NAZIONALE DELLE RICERCHE (CNR) , FI
- JOINT RESEARCH CENTRE, EUROPEAN COMMISSION (ISPRA, VA)
- MANTOVA AMBIENTE
- MASTeR MANTOVA
- MOTONAVI ANDES NEGRINI
- PARCOBALENO
- P.A.V. CROCE VERDE MANTOVA
- POLISPORTIVA SAN GIORGIO 90
- PRO LOCO AMICI DI RIVALTA
- SLOW FOOD CONDOTTA DI MANTOVA
- S.T.A., SOCIETA' TRATTAMENTO ACQUE Valdaro
- TEA ACQUE
- UNIONE DEI COMUNI LOMBARDA SAN GIORGIO E BIGARELLO
- UNIVERSITA' DI PARMA, DIPARTIMENTO DI SCIENZE CHIMICHE, DELLA VITA E DELLA SOSTENIBILITA' AMBIENTALE
- UNIVERSITA' VERDE “Pietro Toesca”

- **GENERAL ORGANIZATION, GENERAL COORDINATION AND LOGISTICS**

LABTER-CREA School Network

- **TRANSPORT OF SUPPORT MATERIALS**

SUPPLY AND TRANSPORT OF TABLES AND CHAIRS

Comune di Mantova Servizio Economato, AVIS Comunale di Bagnolo San Vito e Comune di Bagnolo San Vito

- **SUPPLY AND TRANSPORT OF EXHIBITION SHELVES**

Comune di Pegognaga e Casa del Mantegna

- **SUPPLY, TRANSPORT AND STAGE SET-UP**

Comune di Mantova Servizio Economato

- **EVENT LAY OUT**

EVENT LAY OUT

Raffaello Repossi, designer

- **DISPLACEMENT OF STATIONS ON THE FIELD**

DISLOCATION OF SIGNS FOR WORKPLACES ON THE FIELD

*San Matteo delle Chiaviche and Viadana volunteers and Labter-Crea collaborator
Coordinamento di Raffaello Repossi*

- **MOBILITY**

FACILITATED CLASS TRANSPORT

APAM spa

TRAFFIC CONTROL AND REGULATION

Polizia Locale Mantova

PARKING PASS FOR EXHIBITOR VEHICLES AND PASS FOR NON-MANTAN BUSES

APCOA Mantova

HEALTH CARE AND SAFETY

HEALTH CARE AND EMERGENCY ROOM

P.V.A. CROCE VERDE MANTOVA

SAFETY

COMITATO CORDINAMENTO VOLONTARI DELLA PROTEZIONE CIVILE

- **DOCUMENTATION**

PHOTO AND VIDEO DOCUMENTATION

Sostenitori Labter-Crea

- **WEB**

www.labtercrea.it (webmaster Ing. Michele Baraldi)

www.globeitalia.it (webmaster Ing. Michele Baraldi)

- **FOTO SAFARI MANAGING**

Ing. Michele Baraldi

VISUAL COMMUNICATION

POSTER AND MAP DESIGN

Raffaello Repossi, designer

- RECEPTION

ACCOGLIENZA

Students of ITET Mantegna MN Healthcare Sector

ELECTRICAL AND AUDIO EQUIPMENT

ELECTRIC LINES AND AMPLIFICATION SYSTEM

MySound Company

- CLEANING OF THE EVENT AREA

MANTOVA AMBIENTE - TEA spa

-

PURCHASE OF SERVICES

QUOTE MANAGEMENT AND PURCHASE ORDERS OF SERVICES

IS Fermi MN PURCHASING OFFICE