

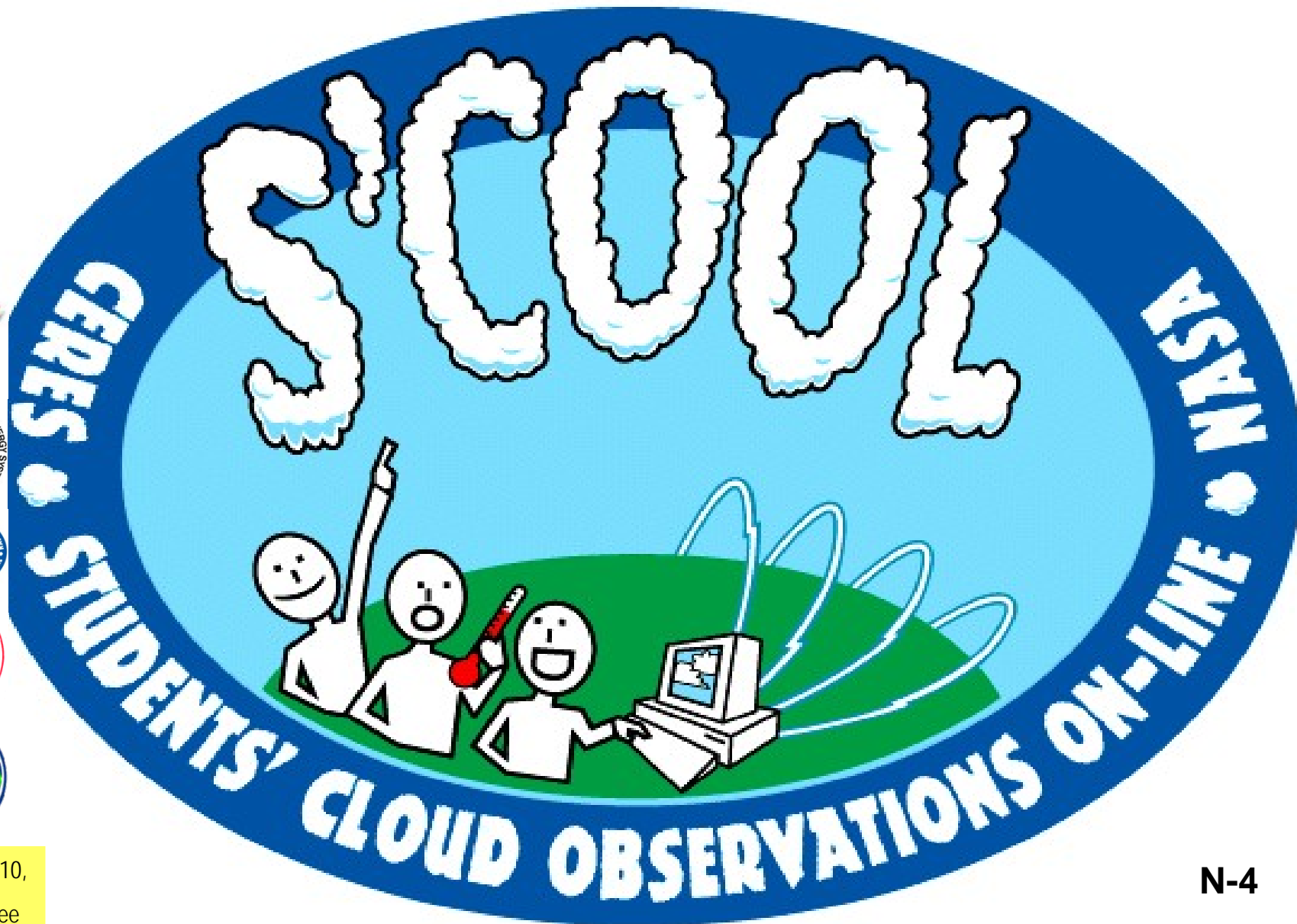
Rural Training Center – Thailand (RTC-TH) REEEPP

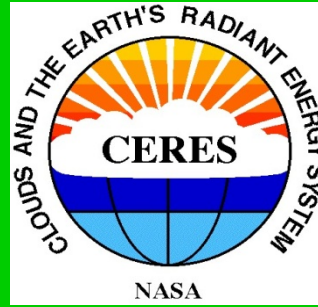
F OCUS

- An innovative, non-traditional community-based environmental education program
- Integrating math, science, geography, English language, and technology lessons for environmental stewardship
- Using interactive experiential learning in outdoor settings at Ban Na Fa Elementary School, Nan Province, Thailand.



Surface Cover





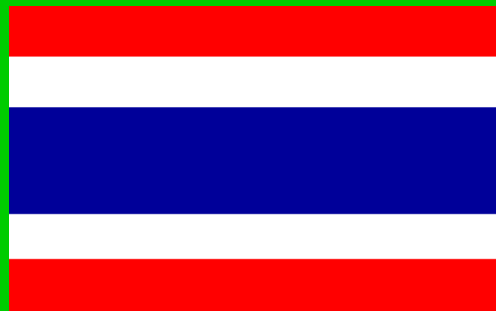
The RTC-TH developed
this lesson as part of the
NASA CERES S'COOL
Project component of
REEEPP





This lesson was originally created when the RTC-TH was a program of ESSi (Earth Systems Science, Inc.), a California educational non-profit organization co-founded by Gregory Lee. In 2006, the RTC-TH was co-founded by Gregory and Saifon Lee as a separate organization.





This is an English Language Training module of **REEEPP**

Rural Environmental Education Enhancement Pilot
Program

presented by

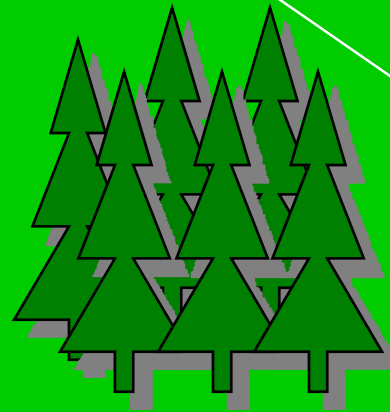
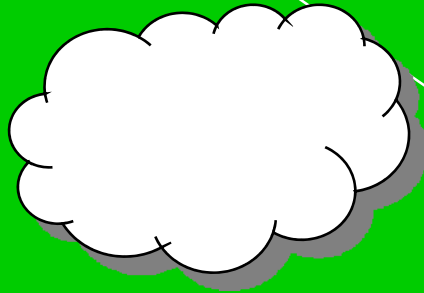
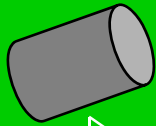
The Rural Training Center-Thailand

E-mail: rtc2k5@gmail.com

www.neighborhoodlink.com/org/rtcth



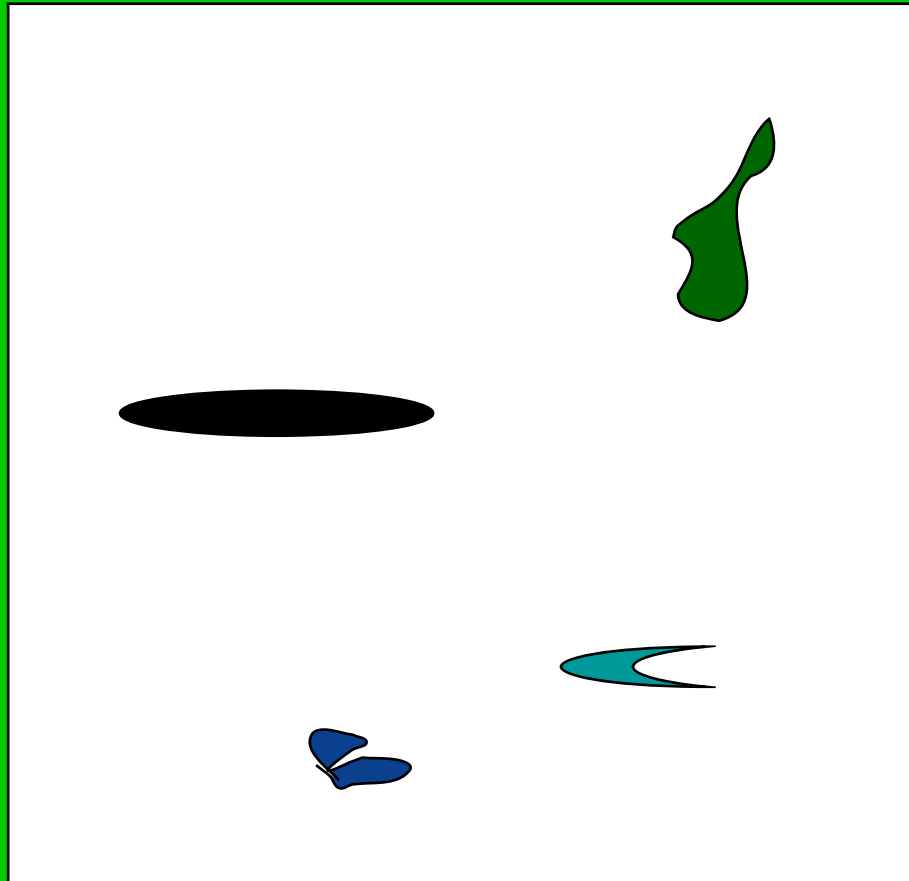
A satellite
looking at
Earth sees
clouds,
water, and
land.



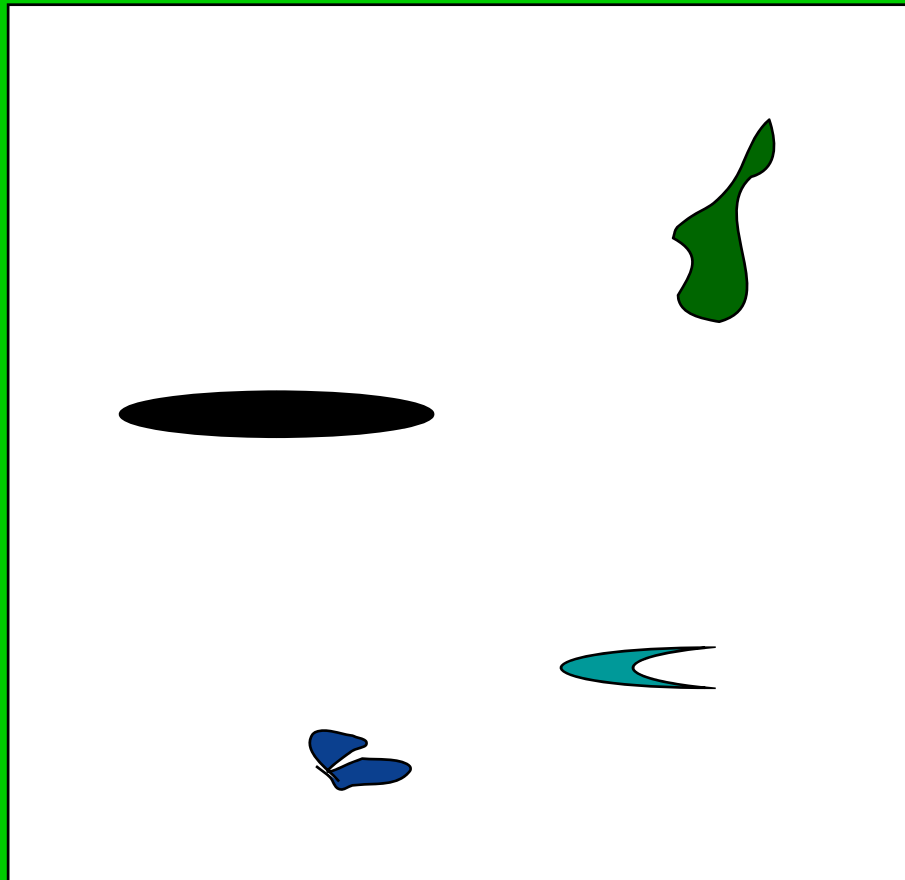
Sometimes the clouds look so white this is what the satellite sees.



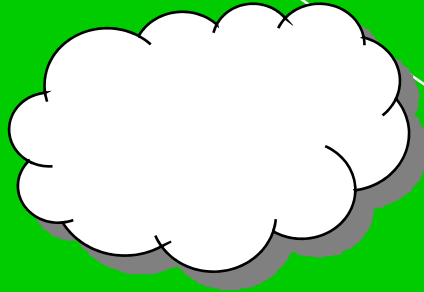
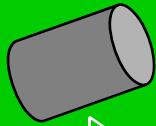
Sometimes there are dark spots in the clouds.



These could be land or water
showing through a hole in the cloud.



A satellite
also sees the
school and
the area
around it.



The NASA scientists need your help to report the surface cover around Ban Na Fa Elementary School.



Here are the surface cover terms to use:

- Snow / ice
- Standing water
- Muddy
- Dry ground
- Leaves on trees





NASA CERES

Student Cloud Observation On-Line Report Form (REEEPP Version)

A 501 (c)(3) non-profit
educational organizationPo Box 8042, Van Nuys, CA 91409-8042
www.earthsystemscience.org

Phone: (818) 343-2363

E-mail: earthsystemscience@yahoo.com

Community-based Environmental Education for Families and Sustainable Neighborhoods

Login ID: Promwangkhwa

Na Fa Village, Thawangpha

Date: Year _____ Month _____ Day _____

Latitude: 19.08 N Longitude: 100.86 E

Satellite: ☐ Terra ☐ Aqua

Time Zone: UT +7

(24-hr format) Local Time: Hr _____ Min _____ Universal Time: Hour _____ Min _____

CLOUD OBSERVATIONS (Required)

If more than one cloud layer exists, check the boxes to show the clouds are present.

Cloud Height	Cloud Type	Visual Opacity			Cloud Cover
		Transparent	Translucent	Opaque	
High	<input type="checkbox"/> Cirrus				• Use the Na Fa Cloud Cover Estimator Dome Worksheet to record the student observations and calculations. • Then check the box below
	<input type="checkbox"/> Cirrocumulus				
	<input type="checkbox"/> Cirrostratus				
Middle	<input type="checkbox"/> Altostratus				<input type="checkbox"/> Overcast (95-100%)
	<input type="checkbox"/> Altostratus				
Low	<input type="checkbox"/> Cumulonimbus				<input type="checkbox"/> Mostly cloudy (50-95%)
	<input type="checkbox"/> Cumulus				
	<input type="checkbox"/> Stratocumulus				<input type="checkbox"/> Partly cloudy (5-50%)
	<input type="checkbox"/> Stratus				
	<input type="checkbox"/> Nimbostratus				
	<input type="checkbox"/> Fog				
				<input type="checkbox"/> Clear (0-5%)	

CONTRAILS (This is optional.)

1	Can you see high into the sky?	<input type="checkbox"/> Yes, go to #2 <input type="checkbox"/> No, why?	<input type="checkbox"/> Sky is overcast <input type="checkbox"/> Too many clouds	4	Any natural looking cirrus clouds in sky with the persistent contrails?	<input type="checkbox"/> Yes, type?	<input type="checkbox"/> Cirrus <input type="checkbox"/> Cirrocumulus <input type="checkbox"/> Cirrostratus	Go to #5
2	Can you see any contrails?	<input type="checkbox"/> Yes, go to #3 <input type="checkbox"/> No, why?	<input type="checkbox"/> None present <input type="checkbox"/> Sky is overcast <input type="checkbox"/> Too many clouds			<input type="checkbox"/> No	Make a fist to block out the sun. Can you see a halo?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3	Contrail type & count	<input type="checkbox"/> Short-lived <input type="checkbox"/> Persistent	Count? Count?	Go to #4	5	Estimate % sky covered by persistent contrails		

GROUND OBSERVATIONS

Surface Cover		Surface Measurements (These are optional.)				
Yes	No	Precipitation	<input type="checkbox"/> mm <input type="checkbox"/> in	Wind	Speed <input type="checkbox"/> kmph <input type="checkbox"/> mph	
<input type="checkbox"/>	<input type="checkbox"/>	Temperature	<input type="checkbox"/> °C <input type="checkbox"/> °F		<input type="checkbox"/> mph <input type="checkbox"/> mph	
<input type="checkbox"/>	<input type="checkbox"/>	Relative Humidity	<input type="checkbox"/> °C <input type="checkbox"/> °F		Barometric Pressure	
<input type="checkbox"/>	<input type="checkbox"/>	Humidity	Dry		<input type="checkbox"/> In Hg	Trend
<input type="checkbox"/>	<input type="checkbox"/>	%	Wet		<input type="checkbox"/> mm Hg	
<input type="checkbox"/>	<input type="checkbox"/>	Difference			<input type="checkbox"/> Mb	

Report
the
Surface
Cover on
this part
of the
form.



Snow / ice is very unlikely for Na Fa.
But hail (a form of ice) is possible in
severe thunderstorms.



Standing water may exist in nearby rice paddies or if flooding occurs.



Muddy: This can happen with bare soil and rain or in newly ploughed fields that are wet.



Dry ground: This may happen especially during the dry season.



Leaves on trees. This is the normal condition in Na Fa except for some dry seasons.



RTC-TH

Rural Training Center-Thailand

is dedicated to providing
community-based
environmental education
for the self-sufficiency
and sustainability of
small rural family farms





The RTC-TH was created to honor the memory of Mr. Tang Suttisan, a father, a farmer, and a man who valued education and used it in starting his family farm



REEEPP

Rural Environmental Education Enhancement Pilot Program

An innovative, non-traditional community-based environmental education program integrating math, science, geography, English language, and technology lessons for environmental stewardship using interactive experiential learning in outdoor settings at Ban Na Fa Elementary School, Nan Province, Thailand..



The End

