Triassic Park

Lake Compounce is America's Oldest Amusement Park--- and now the World's!

Come journey with us as we take a trip through time --- 250 million years and beyond --- exploring and explaining, what was, what is, and perhaps what will be!

The journey begins in the Triassic when the land beneath Lake Compounce was formed, continues through eons of time, and changes as we piece together the evidence of how and why the park has changed.

Your Mission: Look, read, think, and complete this activity as you enjoy Lake Compounce. The Historical Materials, Knowledge Boxes, and Definitive Definitions contain information to help you!

Use the answer sheet at the back of the packet to record all of your answers to the questions.

The original *Triassic Park* was created by: Joseph Schrank
Simsbury, CT

Definitive Definitions

abrasion: wearing away of rock by grinding action

amphibian: cold-blooded, smooth skinned vertebrate that initially has gills and later metamorphoses to an adult with lungs

cleavage: the tendency for a mineral to split along planes of flat surfaces parallel to the crystal faces, leaving smooth and highly reflective flat surfaces in on or more directions

color: one of several physical properties used to identify a mineral. Classifying a mineral as either light or dark in color is usually more useful for identification than a specific color

conifer: evergreen, cone-bearing trees such as pines

contour line: line on a topographic map that connects points on land having equal elevation

convection current: the movement of heat by currents within heated material such as gas or liquids. Movement is based on density currents, with the hotter or less dense currents rising compared to cooler, denser currents.

depositional environment: the natural setting where sediments of certain sizes are laid down or deposited Example: glacial deposits versus river deposits

drainage basin: area of land surface drained by a river system, usually bordered by higher elevations

esker: a long winding ridge formed when sand and gravel-filled melt water tunnels beneath a glacier

fault: a break or crack in the Earth's crust along which movement has occurred

feldspar: a family of the most common of all minerals, the silicate family. It is recognized by its hardness of 6, cleavage in 2 directions, and pearly luster. It is typically pink to white in color.

garnet: reddish brown silicate minerals with a hardness from 6.5 to 8.0 and usually produced through metamorphism.

gneiss: a metamorphic rock made from granites, shale, and other rocks. Minerals are arranged in bands of light colored minerals such as quartz or feldspar that alternate with darker bands such as biotite mica. Severe metamorphism may be indicated by the wavy or squiggly bands of minerals caused by compression of the rocks through plate tectonics.

hardness: the resistance of a mineral to scratching. The common reference material is glass, hardness 6, which is similar to quartz, 7.0. Garnet is harder; 8; feldspar; 6; and mica much less, 2 - 2.5.

hominids: the general name for modern humans ands their recent human-like, bipedal primates

Homo sapiens: species of modern humans, less than 300,000 years old, and which include Neanderthals and Cro Magnons.

igneous rocks: rock formed by the solidification of hot molten rock material called magma. Basalt is common in Connecticut. It is identified by its fine texture, weathered rusty color or dark gray on freshly fractured surfaces.

invertebrate: animals lacking a backbone or spinal column

kettle: circular hollow left in an out wash plain when a buried ice block melts

latitude: distance in degrees north and south of the equator

longitude: the distance in degrees east and west of the prime meridian

luster: the way a mineral reflects light, such as metallic, pearly, or vitreous

mammal: class of vertebrate animals distinguished by self-regulating body temperature, hair and mammary glands in the female

metamorphic rocks: formed by the effect of heat, pressure, and chemical action on other rocks. Common metamorphic rocks at Lake Compounce are gneisses and schists.

mica: soft silicate minerals with flat, shiny flakes that are found in many rocks such as gneiss and schist.

ores: a valuable mineral r metal that is mixed and worked

orient: to position map in same compass direction as building, landmark, etc.

Pangaea: the collision of all the continents into one large super continent at the end of the Paleozoic

plate tectonics: theory of the formation and movement of the rigid pieces or plates that covered Earth's surface

Principle of Uniformitarianism: the concept that the present is the key to the past. In other words, the processes that occur today have always occurred and can be used to explain what happened in the past

process: refers to an organized step-by-step way something occurs

quartz: a very common silicate mineral which is clear to white in color, glassy or vitreous luster, hardness of 6, and does not have cleavage. It is usually whitish in color around Connecticut and found in large blocks in pegmatite dikes

relief: difference in elevations within a certain area

reptile: egg laying vertebrate such as a snake, crocodile, or dinosaur, that is covered with scales or horny plates and has lungs

rule of the V: when a contour line crosses a stream or river, the contour bends upstream to form a V; but in most cases it resembles a U. With this rule, you can determine which way the stream is flowing.

schist: a flaky (excellent foliation) metamorphic rock formed from shales and mud stones. The garnet schists found at Lake Compounce contain abundant mica, quartz, and feldspar with distinctive weather resistant small garnets.

sedimentary rock: rocks formed from sediments weathered and eroded from other rocks and later cemented naturally

shale: sedimentary rock made from clays which are extremely small and weathered from feldspar

silts: very small grains weathered from quartz and feldspar, intermediate in size between sand and clay

stream gradient: the change in elevation over a specific distance and equivalent to the slope. It is usually measured in feet per mile

texture: characteristic appearance or "feel" of a rock due to the size, shape, and arrangements of its mineral crystals

vertebrate: animal with a backbone or spinal column such as humans, birds, and reptiles

Triassic Park is organized into 11 sections.

1. Geology Summary
2. Topography and Topographic Map Interpretation
3. Minerals, Rocks, Weathering
4. Geologic Time and Scale
5. Natural Resources: Water
6. Geologic Processes: Plate Tectonics
7. Geologic Processes: Erosion and Deposition
8. Destruction of Earth's Surface: Glaciers
9. Chemistry and Physics
10. Environmental
11. Synthesis and Prediction

1. Geology Summary

The Historical Displays

We suggest you start at the displays of geologic materials and artifacts located in the Croc Pot foyer, a definite knowledge source while at Lake Compounce. All the information you need to be independent learners is found here, in your activity sheets, and throughout the Park. Review the geologic history, geologic processes, depositional environments, mineralogy and rocks for the information you need to complete your activity.

Answer the following questions from the displays:

1. Name the "Big Events" in the geologic history of the Park?
2. What geologic processes have changed the Park?
3. What is the difference between "schist" and "gneiss"?
4. What do quartz, feldspar, mica, and garnet look like?
5. What was the climate like in the Triassic and Jurassic?
6. Why don't we have this climate today?
7. What type of creatures lived here during the Triassic?

We suggest that you start your journey at the Ferris Wheel, or if it's not too crowded, venture to the Lakeside Trolley, Compounce Mountain Skyride, or Thunder Rapids Raft Ride.

2. Topography
Topographic Map Interpretation

Connecticut is known for its rolling hills and valleys. The topography or land forms includes mountains, hills, valleys, bodies of water and other features on the surface. Topographic maps show elevations of the various land features by means of contour lines. They also show the shape and sizes of the various land forms. On a contour map steep slopes are designated with contours close to each other, while gentle slopes or flatter areas are designated with contour lines farther apart. Lake Compounce and the ridge that borders the eastern part of the Park, where you entered, were formed by glaciers.

Ferris Wheel: Topographic Overlook of the Present with Keys to the Past

Before you board the ride, look at the topographic map found at the back of the packet and orient the map with the Park. Get a general feeling for the topography of the Park today, because we will ask you how it will look tomorrow (in geologic time).

1. What is the latitude and longitude of the Park?

2. Topographic maps are useful for determining:

3. The Ferris Wheel is oriented in what direction?

4. What is the elevation where you are standing right now?

5. As you ride the Ferris Wheel, note the topography of the Park and describe it. (Does it resemble a series of hills, valleys, mountains, plains, wetlands, what?) Describe with some detail:

   to the west:

   to the east:

   to the north:

   to the south:

6. Why aren't most of the buildings you see from the Ferris Wheel on the topographic map?

7. Estimate your elevation in feet at the top of the Ferris Wheel.

8. Where is the highest elevation in the Park and what is that elevation?

9. What is the lowest elevation in the Park and where is it?

10. If contour lines are far apart what does this mean?

11. Where is the "flattest" part of the Park?

12. What happens to contour lines when a river crosses them?

13. Draw a line or lines on the map to show where a stream would likely run down the mountain (remember the rule of the V).

14. Draw in the location of the Ferris Wheel.

3. Minerals and Rocks

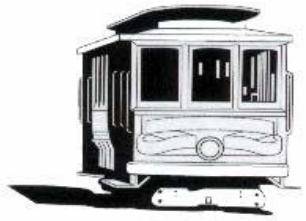
We think of minerals as colorful and beautiful crystals, something to look at and collect. Most minerals though are rather plain but important in the manufacture of many useful and needed goods. As you may recall, minerals are naturally occurring, inorganic solids with a definite chemical composition, and their atoms arranged in a definite pattern. The pattern repeated over and over again results in a crystal, usually microscopic. The composition and arrangement of the atoms result in certain physical features which are useful for identification. Color (dark or light), luster, cleavage, and hardness are some of the most important physical features for identification. The most common minerals in Connecticut are quartz, feldspar, and mica. The presence of certain minerals gives clues as to its origin. Did it form under high temperature and pressure or at near surface conditions? For example, the reddish brown semiprecious gem, garnet, usually forms in a metamorphic environment.

Most people don't get as excited about rocks as they do about minerals. Why not? Rocks are just aggregates of minerals, typically quartz, feldspar, and mica. Because they are bound together tightly, we do not see the individual crystals with their reflective faces. Rocks are classified based on the way they were formed. Igneous rocks form from molten rocks or magma; sedimentary rocks form from cemented sediments; and metamorphic rocks form from both sedimentary and igneous rocks which have been altered by temperature and pressure. The rocks you will be looking at are mainly from the metamorphic class, schists and gneisses. It is important to look at the texture of the rock. Many metamorphic rocks exhibit or show a banded or wavy pattern of minerals. The igneous rock you will see is known as basalt and can be identified by its fine grained texture and its gray to dark gray color. Weathering will change basalt from gray to rusty red-brown in color. Sedimentary rocks from the Connecticut Valley are usually reddish brown in color and range from fine grained to conglomerates. The metamorphic rocks here were originally ocean bottom sediments. When the metamorphic rocks weathered and eroded, the sediments were deposited in the valley and later cemented. They are the sedimentary rocks you see here today.

Geologic Processes: Destruction of the Earth's Surface: Weathering

The earth's surface is slowly falling apart. This step by sep process by which nature breaks down rock is called weathering. Weathering occurs either as mechanical or chemical weathering. Mechanical weathering can include water freezing in cracks of rocks or frost action. Water expands upon freezing, enlarging the fracture, and over time the fracture grows and new ones form. Tree and plant roots can also act as wedges as they grow (root-pry). Chemical weathering refers to a chemical reaction which takes place between water, plant material, and the rock and minerals. Over time the rocks and minerals break down into smaller and smaller fragments and some are dissolved. Rain water is naturally slightly acidic and is especially reactive with calcite. Quartz and garnet are very resistant to weathering, while feldspar and mica are less resistant. Over the past 200 million years, weathering and erosion have been the chief geologic processes working on Connecticut. Rocks continually change over time, and under one case, igneous rocks break down into sediment and become sedimentary rocks. In time they may become metamorphic rocks and eventually igneous rocks again. This geologic cycle is known as the rock cycle.

Lakeside Path Walk: Minerals, Rocks, and Weathering:



The light poles will be used to move you to the correct location. You will find numbers on the poles about 7 to 8 feet above the ground. Start your walk at the second trolley light pole.

1. What are the chief two weathering processes you observe as you walk the path?

2. Move to pole # 2. Looking towards the slope, describe the type of weathering you observe.

3. Move to pole # 3. Note the fenced in area across the road from the pole and the rock inside. Describe the rock by texture and color.

4. Identify the rock. (Hint: It is extensively quarried, and is also used as a road base. It is one of Connecticut's chief economic natural resources).

5. Move to pole # 5. Observe the rock by the road. Look for the wavy, squiggle pattern on the rock. This pattern tells you something about the origin of the rock. What is it?

6. What class of rock is this?

7. Identify the minerals.

8. Move to pole # 7. Just before pole # 7 is a large rock. Go over to the fence and examine this large rock. It represents two classes of rocks. Identify what they are and give the name for each rock.

   Look for the contact between them.

9. Name the minerals you see in the rock.

10. Name the mineral that appears as little rounded "pimples" on the left. Look on the underside.

11. Why does this mineral stick out compared to the surrounding rock minerals?

Rock Identification

Walk up to the Catering Pavilions located beyond Thunder Rapids. Walk down the fenced path by the raft ride and continue until you reach the pavilions. Go behind the Pavilion which is located between the two glacial erratics. These are the rocks taller than the Pavilion.

12. Identify the six large rocks, **starting in order from the fence.** Consider them as numbered one to six, with the closest to the fence being number 1.

    Conglomerate _____

    Basalt _____

    Weathered Schist _____

    Pegmatite Gneiss _____

    Garnet Mica Schist _____

4. Geologic Time & Scale

If you go by geologic time, 50 million years is the time needed to notice some real change on earth. This is comparable to about a year in our lives if we live to 100. The universe is about 15 billion years old and the earth is less than a third of that at 4.6 billion (4,600,000,000 years). By studying rocks and minerals, modeling their formation in laboratories, radioactive dating, and the current geologic processes, both weathering and plate tectonics, geologists have been able to unravel the history of the earth and predict what will happen in the future. Of course, the rock information over the last 10 million years is more complete than 100 million or 1 billion years ago.

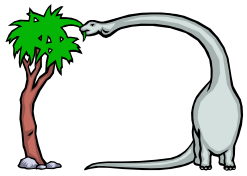
The history of the earth is broken into 4 eras:

Precambrian:	the oldest, represents almost 87% of the earth's life, or 4 billion years, and is notable for the beginning of life.
Paleozoic:	represents 7% (320 million years) of earth's history and is notable for the proliferation of life.
Mesozoic:	represents 4% (185 million years) of earth's history.
Cenozoic:	represents 1.4% (65 million years) of earth's history.

Geologic Time Line: A Walk Through Time

Walk along the fence from the Archean to the Present. Reconstruct the geologic time line and learn the history of Lake Compounce and Connecticut. Fill in the table at the back.

Era	Period	Years Ago (Millions)	Geological Events	Life Forms	Climate
Future					
Cenozoic					
	Quaternary				
	Tertiary				
Mesozoic					
	Cretaceous				
	Jurassic				
	Triassic				
Paleozoic					
	Permian				
	Pennsylvanian				
	Mississippian				
	Devonian				
	Silurian				
	Ordovician				
	Cambrian				
Precambrian Time					
	Proterozic Era				
	Archean Era				



1. What era represents the most time?

2. What era represents the shortest time?

3. How many times did mountain building occur in the Connecticut area?

4. When did it occur?

5. When was the last time Connecticut bordered an ocean that was spreading apart?

6. What geologic processes occurred most often over time?

7. What geologic processes were occurring even during mountain building?

8. What pattern do you see for geologic events?

9. When did most dinosaurs become extinct?

10. When did early man appear?

11. How many years are there between the disappearance of dinosaurs and the evolution (beginning) of early humans?

5. Natural Resources : Water

Everything we need to survive and live comfortably comes from nature. These natural resources may be renewable or nonrenewable. A renewable resource is capable of being renewed in a lifetime, such as wood or water while nonrenewable resources cannot be replenished as fast as they are used, such as oil, metallic ores, and gravel. Water is important for all living creatures and the manufacturer of just about everything. Over 97% of water is salt water and liquid fresh water accounts for less than 1%. The other 2% of fresh water is found in glaciers. Of the liquid fresh water, only a tiny portion is found on the surface in rivers and streams, most of it is found underground as groundwater. Water is a natural renewable resource and is easily explained with the water cycle. As precipitation hits the ground some of it enters the ground and some of it runs on the surface. A specific land area into which water drains, both above and below the ground is known as a drainage basin. Wetlands, ponds, and streams may be found at the lowest elevations within a drainage basin. Connecticut, for the most part, has clean drinking water obtained from reservoirs or underground wells.

Lakeside Trolley: Take a ride on the trolley and answer the following:

1. Where does the water come from to keep the lake filled?

2. What evidence is there for the above answer?

3. Do you think the water is polluted?
   Why or why not?

4. Outline the drainage basin for the lake on your topographic map.

5. What size is the lake length and width?

6. Name some other bodies of water in the area.

6. Geologic Processes: Construction of the Earth's Surface - Plate Tectonics

When you see the term "plate tectonics" think earthquakes, volcanoes, faulting - - all related mountain building processes. The earth's surface is covered with numerous rigid plates. These plates move along as hot convection currents from within the mantle move up and under the plates. Where plates collide, such as here in Connecticut Valley. Associated with plate movements are volcanoes, earthquakes, faulting and intrusions as the rocks shift position. 250 million years ago, the continents collided to form Pangaea, and less than 50 million years later, Pangaea split. Much faulting was associated with the split. Major fault border both sides of the valley. When you ride the Compounce Mt. Skyride at Lake Compounce, you are riding up the upthrown face of a normal fault. The downthrown part is obviously down in the valley. The metamorphosed schists you are traveling over were once ocean bottom sediments of shales and silts, which were heated and squeezed by colliding plates during an earlier collision with Africa during the Devonian (400 mya). These formally high mountains are now very eroded. The Compounce Mt. Skyride travels over several ribbons of white rock which are pegmatite dikes composed of primarily the white mineral, quartz.

Compounce Mountain Skyride :
Ride up the face fault where Pangaea Split!

1. Note your elevation and orient your map while waiting in line.

2. Look at your topographic map. What is the elevation on top of the mountain?

3. What is the relief?

4. What type of fault is this?

5. Now that you have moved out of the valley, has the rock type changed?

6. What is the age of the rock?

7. Observe the textures on the face of the rock and describe them.

8. What is the slope or gradient of the rock face

9. This fault is the result of:

10. What can you see from the top of the mountain?

11. How does the vegetation change from bottom to top?

12. What is the white rock the Compounce Mountain Skyride is passing over?

13. Note the quarry of glacial sand just past the parking lot. How are these quarries noted on the topographic map?

7. Geologic Processes: Erosion and Deposition with Water

Playing in the sand and at the beach has made you an expert on erosion. Water is the most important erosional agent. The amount of force water has to erode and to transport sediment of all sizes depends on its speed and volume. Its speed is dependent on the change in elevation of its bed or channel over a certain distance. This is called the stream gradient. We all know that rivers in flat areas move slowly compared to those flowing down mountains. When a river slows, the larger rocks fall out first. Water carries rock materials: in solution, since minerals dissolve; in suspension, such as clay and silt; and as bedload, which is sand, gravel and larger size material. With the force of water behind them, rocks smash and crack other rocks in a process known as abrasion. Young rivers have "V" channels which tend to be straight, while mature rivers have wide channels and meander. Evidence of erosion is evident around Lake Compounce grounds.

Thunder Rapids Raft Ride : The Fast Rock Review

Do not take this activity sheet aboard the ride! It will get wet when you get wet!

1. Are you a part of the solution, suspended, or bed load material?

2. Are you in a young or mature "river"?

3. What is the basic shape of most of the rocks?

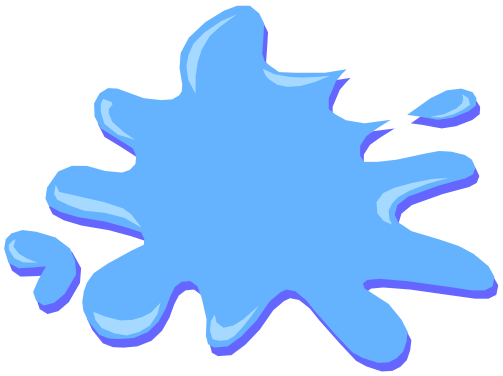
4. Why do they have this shape?

5. What type of rock is "Lover's Rock?"(This is the rock that showers you.) How did it get here?

6. When did Lover's Rock get here? Consider the evidence.

7. Five rocks are numbered through the River Raft Ride. Identify these with their classification and type.

	Rock Classification	Rock Name
1		
2		
3		
4		
5		



8. What is the major erosional or destructive agent on earth?

9. The energy for the fastest part of the ride is provided by:

10. Which type of load requires the greatest amount of energy to move?

8. Destruction of the Earth's Surface: Erosion by Glaciers

Imagine 2,000 feet of ice above you right now! The last Ice Age ended approximately 20,000 years ago and covered the New England area as far south as Long Island, New York. Glaciers, like "liquid" water, are pulled by the force of gravity from higher to lower elevations and flow due to compression. As the massive ice moves, it plucks and drags rock along, grinding it into ever smaller pieces. When the ice melts, it drops its sediments, called "drift", in place. Today the state is covered with land forms created by glaciers.

The lake was formed when large pieces of ice slowly melted and drift was deposited around it. The lake is similar to a kettle lake. The eastern ridge of the Park was deposited in an ice tunnel and resembles an esker. Large boulders sitting on the ground, such as Lover's Rock, represent boulders or glacial erratic dropped by the glaciers as they melted.

The Beach at Lake Compounce: Glacial Sawdust

1. Take a handful of sand. What is the main mineral component?

2. How was the lake formed?

3. When was the lake formed?

4. What other natural resource besides water is available in the local area? (You saw it from the Compounce Mountain Skyride as you were coming down from the mountain).

9. Chemistry & Physics

Chemistry is a blast for it describes how different elements or compounds react, and some do it violently. Physics is the study of how things in nature work (such as matter and energy). Chemistry and Physics serve as the foundation for Earth Science. Applying concepts of chemical reactions helps to understand which rocks and minerals form at certain temperatures. Understanding the physics of density explains such things as he structure of the earth, weather and ocean currents. The modern simple model of the atom has a nucleus of protons (positive charge) and neutrons (neutral charge) with a cloud of electrons (negative charge) surrounding it.

Pirate Ride: Man-made Rocks

The Pirate Falls (lagoon in the front of the ride) is a man-made rock. It is a mixture of clay, sand, lime (CaCO3) and water called concrete.

1. This man-made rock is similar to which of the three classes of rock found in nature?

2. Chemical reactions take place with the exchange or sharing of:

Electron Spin

Get to know what an orbital ride around the nucleus may be like for an electron.

3. Draw and label a simple model of an atom:

4. The electron has a _____ charge.

10. Environmental

When someone says "environmental," think soil, water, air and how we affect them. A change in these may change what lives! So, with everything we do, we must consider the impact to the earth's surface, oceans, ground water, and air.

Environment: Don't Litter!

1. **The Park has been here for over 150 years. How has it changed?**

2. **Name at least three ways Lake Compounce is working to preserve the environment.**

3. **Name at least two rides where recycling of a natural resource is very important.**

Respect the Earth

11. Synthesis & Prediction

Scientists base future predictions on patterns or trends. They look to the past to predict what may happen in the future. The *Principle of Uninformitarianism* helps geologists to explain the history of the earth.

The Future

1. Look to the future by listing what has happened in the past.

	Geologic Process	Life	Climate
Precambrian			
Paleozoic			
Mesozoic			
Cenozoic			
Now			
Future: 50 Million Years			

2. What will the topography of the area look like in the future?

3. What geologic processes are likely to have the most influence in the future?

Other Things to See and Do:

Dinosaur State Park in Rocky Hill features over 500 dinosaur tracks with full size dioramas of life in the Triassic and Jurassic and interactive displays. Take home a cast of a dinosaur footprint! Excellent presentation and tour by staff. Call 860-529-8423

Old Newgate Prison in East Granby features some of the first copper mines operated in the U.S. Guided tours are available of the underground mine which later served as a prison. Other remaining structures are the prison walls and some of the buildings which date back to the early 1800's. Beautiful and historic surroundings! Call 860-653-3563 for details.

US Geological Survey Website: http://www.usgs.gov.
Excellent resource.

The Face of Connecticut: http://www.tmsc.org/geology.
The geology of Connecticut is on the web.

Aerial Photos of your house and Lake Compounce: www.terraserver.microsoft.com.

Locator

North End

Zoomerang

Twister

American Flyers

Saw Mill Plunge

Pirate Ship

Ghost Hunt

Ferris Wheel

Enterprise

Midway

Wildcat

Wave Swinger

Rotor

Splash Harbor

Clipper Cove

Anchor Bay

Mammoth Falls

The Mark Twain

CP Huntington Train

Circus World / Kiddieland

Back Midway

Carousel

Wildcat Entrance

Musik Express

DownTime

Bumpers Cars

Boulder Dash

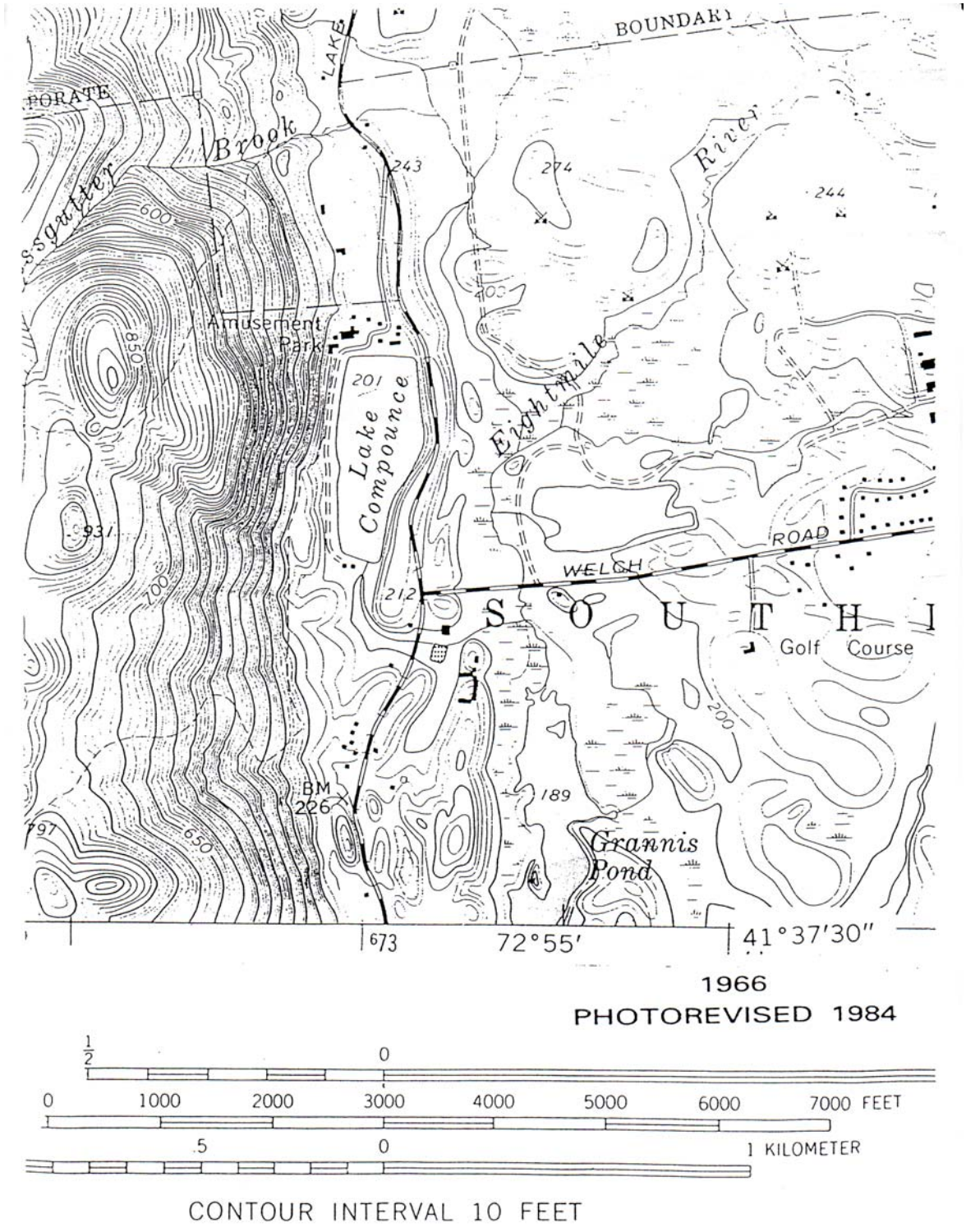
South End

Thunder Rapids

Lakeside Trolley

Compounce Mt Skyride

Catering Pavilions


BOUNDARY
LAKE
BORATE
Brook
Ssquatteq
243
274
River
244
400
600
Amusement Park
850
201
Lake Compounce
Eight mile
931
ROAD
WELCH
212
S O U T H
Golf Course
700
200
BM 226
189
797
650
Grannis Pond
673
72°55'
41°37'30"
1966
PHOTOREVISED 1984
1/2
0
0 1000 2000 3000 4000 5000 6000 7000 FEET
.5
0
1 KILOMETER
CONTOUR INTERVAL 10 FEET

Triassic Park
Student Answer Sheet

Name: _____

School: _____

Teacher: _____

1. Geology Summary

The Historical Materials

1. Big Events
2. Geologic processes:
3. schist:
   gneiss:
4. Quartz
   feldspar:
   mica:
   garnet:
5. Triassic climate:
   Jurassic climate:
6. Answer:
7. Triassic Creatures:

2. Topography and Topographic Map Interpretation

Ferris Wheel

1. Latitude: _____ longitude: _____
2. Answer: _____ _____

3. direction:
4. elevation:
5. west:
   east:
   north
   south
6. answer:
7. elevation-top:
8. highest-elevation:
9. lowest-elevation:
10. answer:
11. flattest:
12. answer:
13. draw on map
14. draw on map

3. Minerals and Rocks
Geologic Processes: Weathering

Lakeside Path Walk

1. chief processes:
2. texture and color:
3. identify:
4. type observed:
5. origin:
6. class:
7. identify minerals:

8. identify and name:
9. name minerals:
10. name mineral:
11. answer:
12. Choices for the six rocks: With the rock closest to the fence as #1

    Conglomerate
    Basalt
    Weathered Schist
    Pegmatite Gneiss
    Garnet Mica Schist
    Conglomerate

4. Geologic Time and Scale

1. era-most time:
2. era-shortest time:
3. answer:
4. when:
5. when bordered:
6. geologic processes most often:
7. geologic processes:
8. pattern:
9. dinosaurs extinct:
10. man appeared:
11. years:

Geologic Time Line: A Walk Through Time

Era	Period	Years Ago (millions)	Geological Events	Life Forms	Climate
Future					
Cenozoic					
	Quaternary				
	Tertiary				
Mesozoic					
	Cretaceous				
	Jurassic				
	Triassic				
Paleozoic					
	Permian				
	Pennsylvanian				
	Mississippian				
	Devonian				
	Silurian				
	Ordovician				
	Cambrian				
Precambrian Time					
	Proterozic Era				
	Archean Era				

5. Natural Resources: Water

Lakeside Trolley

1. where: _____
2. evidence: _____
3. answer: _____
4. draw on map
5. length and width: _____
6. bodies of water: _____

6. Geologic Processes: Plate Tectonics

Compounce Mountain Skyride

1. elevation: _____
2. elevation on top: _____
3. relief: _____
4. type of fault: _____
5. change: _____
6. age: _____
7. textures: _____
8. gradient: _____
9. fault: _____
10. view: _____
11. change: _____
12. white rock: _____
13. quarries: _____

7. Geologic Processes: Erosion and Deposition

Thunder Rapids Raft Ride

1 . answer: _____

2. "river:" _____

3. shape: _____

4. why: _____

5. Lover's Rock: _____

6. when: _____

7. classification #1: _____ name: _____

   classification #2: _____ name: _____

   classification #3: _____ name: _____

   classification #4: _____ name: _____

   classification #5: _____ name: _____

8. major agent: _____

9. energy: _____

10. type: _____

8. Destruction of Earth's Surface: Glaciers

The Beach at Lake Compounce

1. mineral: _____

2. answer: _____

3. when: _____

4. resource: _____

9. Chemistry & Physics

Pirate Ride

1. class:

2. answer:

3. model:

4. charge:

10. Environmental

Environment

1. change:
2. three ways:
3. two rides:

11. Synthesis & Prediction

The Future

	Geologic Process	Life	Climate
Precambrian			
Paleozoic			
Mesozoic			
Cenozoic			
Now			
Future			

2. topography: _____
3. processes: _____