Waldorf Essentials

Class Six

By Melisa Nielsen

Contents

Introduction

• What Is the Best Way to Put This Book and Course to Work for You?

Rhythm, Parenting and Living

- What Exactly Is This "Rhythm" Thing?
- Sleep Window?
- Dinner Is the Runway for Bedtime
- Rhythm of the Day and Week
- Let's Talk about Inner Work
- Discipline and Development

Festivals

Main Lesson Layout & Content

- Housekeeping
- Three Days or Four?
- Opening Verses for Classes 5-12
- Sample Block Layout
- Weekly Main Lesson Breakdown
- Main Lesson Basics
- Sustained School Reading

Main Lesson Content Block One - Geometry

- Terms Review
- Circle & Triangle Review
- Hexagon Review
- Dodecagon Review
- Dodecagon and 24 Division
- Equiangular Spirals in a Dodecagon
- Equiangular Spirals in an Octagon
- Equiangular Spirals in a Square
- Equiangular Spirals in a Hexagon & Triangle
- More Spirals
- The Spiral of Archimedes
- 24-gon Circle
- Exact Geometry 30°, 45°, 60° and 90°
- Adjacent, Opposite & Corresponding Angles
- What is "perfect"?
- Copying an Exact Line Segment & Angle
- Main Lesson Content Block Two Geology & Geography of Your Homeland
 - Understanding the Areas of the Earth
 - Learning About the Earth's Structure
 - Tectonic Plates & the Formation of the Earth's Structures
 - Mountain Formations
 - The Rock Cycle
 - Biomes The Deciduous Forest
 - Biomes The Grasslands
 - Biomes The Desert
 - Biomes The Temperate Forest
 - Biomes The Wetlands
 - Biomes Research Project
 - Fossils
 - Mining
 - What Things are Mined?
 - Gemstones

Main Lesson Content Block Three - Physics

- Exploring Sound
- Types of Sentences
- The Sounds of Creation
- Conditional Sentences Part 1
- Pitch & Volume
- Traveling Sound
- Explore the Sunrise
- Conditional Sentences Part 2
- Visibility of Light
- Exploring Color
- Pinhole Camera
- Exploring Warmth
- Exploring Heat
- Heat Conduction
- Expansion & Contraction
- Shocking Electrical Discoveries
- Lighting a Fluorescent Tube
- Exploring Magnetism
- Attraction & Repulsion

Main Lesson Content Block Four - Rome

- Review Alexander the Great
- The Birth of Rome
- Roman Timeline
- Be a Roman
- Roman Roads 1
- Roman Roads 2
- Aqueducts 1
- Aqueducts 2
- Famous Roman Architecture
- The Bath House
- Bread and Circuses
- Roman Writing
- Hannibal, Julius Caesar, Marc Antony & Augustus
- The Rise and Fall of the Roman Empire
- Rome Wrap Up
- Roman Mosaic

Main Lesson Content Block Five - The History of Money

- What is Money?
- Basic Budgeting
- Writing Checks & Using Debit Cards
- Percentages & Credit Cards
- Let's Go on a Trip!
- Trip Budget, Plane Tickets & Hotel
- Trip Budget, What Should We Pack?
- Trip Budget, What Will We Eat?
- What Activities Will We Do?
- Trip Reflections & Post Cards
- Trip Reflections 2
- Take Another Trip
- Main Lesson Content Block Six Christianity & Islam
 - Who is Jesus?
 - The Wise Men
 - Jesus' Ministry

- Jesus' Apostles & Death
- The Early Christian Church
- Making the Bible
- Seats of Christianity
- Visiting Different Christian Churches
- Who is Mohammad?
- The Night of Destiny
- What is Ramadan?
- The Customs of Islam
- Understanding Pilgrimage
- The Accomplishments of Islam
- Sects of Islam
- Islamic Art & the Mosque

Main Lesson Content Block Seven - The Middle Ages

- When are the middle ages?
- Early Middle, 500-800 A.D.
- Early Middle, Charlemagne
- Feudalism & William the Conquerer
- High Middle Ages, the Crusades & the Templars
- High Middle Ages, the Crusdades & King Richard the Lionheart
- Chivalry & the Code of Knights
- What is a Troubadour? Poetry writing.
- Be a Knight
- Castle Life
- Pope vs. Emperor
- What is a Cloister? Monastic Living
- City Culture
- The Black Death
- Medieval Innovations
- Design a Castle City & Finish Time Line

Main Lesson Content Block Eight - Starting and Running a Business

- Sally's Lanterns at the Farmer's Market
- · Selling on Etsy
- Adding More Products
- How Much is Sally Really Making?
- Time to Become Legal
- Writing a Business Plan
- Opening a Storefront
- Applying for a Loan
- Hiring an Employee & Finding an Accountant
- One Year Anniversary
- What Other Things Would Be Fun to Make and Sell?
- Introduction to Algebra: Using Letters & Characters in Equations
- Three Term Equations
- Simple Multiplication
- Word Problems with Letters

Main Lesson Content Block Nine - World Geography

- Review Homeland & Begin Timeline
- Your Personal Family History in Your Homeland
- The Native Population of Your Homeland
- Why Did the First Settlers Come?
- Things Your Country is Known For
- Geography of Canada Part 1
- Geography of Canada Part 2

- Geography of Latin America Part 1
- Geography of Latin America Part 2
- Geography of South America Part 1
- Geography of South America Part 2
- Review Geology Block, See the World as a Whole
- The Ocean & The Moon
- Major Mountain Ranges
- Major Rivers
- The Weather & the World

Year End Wrap Up Composition

Poems and Verses Resources and Supplies Waldorf Curriculum Chart

Mathematics track Pages

- Track 1
- Track 2

Introduction

Welcome! Thank you for purchasing our curriculum. When I started this curriculum writing and coaching journey many moons ago, it was just Erik and I running the show. We were striving to be conscious parents while growing our business and supporting the Waldorf community. Our team has grown so much since then! Now we are an eclectic group of Waldorf-inspired parents with decades of experience raising children within these Steiner values. Our team of coaches have done all the things - we represent families that have only taken a Waldorf homeschooling journey as well as those who sent their children to some sort of other school experience at some point. We carry a wealth of knowledge from early childhood through high school and beyond, and we are so excited to walk this path with you. Remember, you are not alone. We have all been where you are and truly understand what it means to parent, run a business, have special needs children, have a large family, have an ex-husband and much more. Our team is here to support YOU. We are eager to cheer you on with your victories and offer a listening ear during your struggles.

"Where is the book in which the teacher can read about what teaching is? The children themselves are this book. We should not learn to teach out of any book other than the one lying open before us and consisting of the children themselves. In order to read in this book, however, we need the widest possible interest in each individual child, and nothing must divert us from this." ~ Rudolf Steiner, *Human Values in Education*

As you get busy with planning and preparing for your school year, remember the quote above. Your children are the text. Being home with them to give them this education is a gift - enjoy it! When you get stuck, come and ask for help and we will be there as support.

What is the Best Way to Put This Curriculum and Course to Work for You?

The course portion online is an important part of your training with this curriculum. The course is broken down into different sections. This training prepares you for what to expect this year with your child's development, subjects covered within the Waldorf curriculum and how they meet your child, as well as planning instruction via our Planning for Peace program. This training is grade specific for each curriculum grade, it is called Thinking Feeling Willing or TFW. We highly recommend that you complete this video training *before* you begin your planning process.

Remember, if at any time you need help, our team is here to assist you, so please do not hesitate to reach out.

and charcoal can be daunting and frustrating so giving them space outside of regular lesson time is appropriate. I will often begin on my own and let them join me (I do this a lot and they have never picked up on my tactics!) I really like the book *Painting and Drawing In Waldorf Schools: Classes 1 to 8* by Thomas Wildgruber.

Three Days or Four?

Many families are busy. We want your homeschool to feel like it works for you, like you can attend a co-op weekly and have field trips or hang out with friends, without feeling like you are missing lessons or getting behind. We have included a graphic to illustrate both a three day and a four day school rhythm. If you need guidance on deciding what is best for you, please come to office hours and let us help you reflect.



Opening Verse for Classes 5-12	Additional Verse for Opening or Closing
I look out into the world Wherein there shines the Sun Where glimmer all the stars, Where lie the silent stones The plants that live and grow The beasts that feel and move Where man in soul creates A dwelling for the spirit. I look inward to the soul That lives within my being The spirit of God is weaving In sunlight and in soul-life In heights of world without In depths of soul within. Spirit of God to thee I turn myself in seeking That strength and grace and skill For learning and for work May live and grow in me. ~ Rudolf Steiner	There lives in me an image Of all that I can be Until I have become it My heart cannot be free.

Sample Block Layout & Lesson Format

Block One - Mathematics Geometry	Block Two - Geography & Geology	Block Three - Physics
4 Weeks Geometry	4 Weeks Geology & Geography of your Homeland	4 Weeks Physics & a bit of English
	Math track.	
		Math track.
Block Four - Rome	Block Five - Mathematics	Block Six - Christianity & Islam
4 Weeks Rome, including Roman architecture and leaders.	4 Weeks The History of Money & Fun Ways to Use It.	2 Weeks Life of Christ & the early Christian church. Introduction to astronomy.
Math track.		2 Weeks Life of Mohammad &
		Founding of Islam.
		Math track
Block Seven - Middle Ages	Block Eight - Mathematics	Block Nine - World Geography
4 Weeks Middle Ages, including	4 Weeks Business Math	4 Weeks World Geography
into varions and poetry	A brief introduction to algebra.	Math track.
Math track.		

Block Two - Geology & Geography of One's Homeland

As we walk through this block, be prepared to do a bit more study with regard to your specific area. If you were with us in Class Four then you probably studied many things very local to you, now we will be expanding that knowledge to a larger area. I will be focusing on the United States for these lessons, but if you are not from America then please use these suggestions as a spine for lessons you will create about your own homeland.

One book I love for the story content during this block and later in Class Seven is *Geology and Astronomy* by Charles Kovacs. There are lovely stories that can go along with your daily main lesson work. You can either read them aloud together or have your child read it as part of their school reading. For other reading during this block, I would look to authors that are local to you in some way or look at stories that bring in the beauty of your surroundings, the more descriptive, the better. A few books we pulled from during this block include *The Wisdom of John Muir* compiled by Anne Rowthorn and *The Burgess Seashore Book for Children* by Thornton W. Burgess. We also enjoyed many books between Class Four and Six by Holling Clancy Holling. There are many other books that you can use for your own knowledge and learning on this subject. I encourage you to take some time with geological field guides and really study the topic so you feel equipped for your child's possible questions.

Don't forget to take some field trips! The best science is experiential. If you are in North America, plan to visit some National Parks during your block if at all possible as these parks combine the beauty of nature, the wisdom of the animals and the complexity of geology altogether. On a recent trip through Yellowstone National Park, I was struck by the beauty of the mud pits and the hoof prints of the animals all with a backdrop of majestic mountains. One can't help but stand in wonder, whether you are old or young. Stand in these places quietly with your child. If holding attention is hard for them, give them something to focus on like "How many different birds do you hear?" Or "Now that there are no cars to distract us, what do you hear?" It is so helpful if we are doing it with them. This is also a perfect time to lean into more nature studies. What do you see? Draw or paint it. Bringing art to this space allows it to live beyond the time you are there at the park.



Understanding the Areas of the Earth

As we being this block, take a look at the globe. During this time, you will take your child on a journey that explains how and why different areas of the world look different, have different temperatures and different plants. Discuss the animals in different areas. As you prepare your lessons, consider a story like the example I have here.

"Here we are on the earth, we are this tiny spot above Baja California. It is pretty warm here most of the year. When we go farther south it gets warmer and warmer as we approach the equator and then gradually cooler as you move south from there. If we go all the way south, to the South Pole, it is cold, much colder than we can imagine – colder than when we lived in Idaho. If we go north of us, up through the north east part of North America, it gets colder pretty fast and also continues to be colder and colder until it is like the South Pole, only this is the North Pole. In these two places, the snow never melts. Remember when we lived in Utah and in Idaho? There were times when the snow didn't melt off the Tetons or the Wasatch until July –

sometimes later, but usually in August you could walk in the mountains and not find snow. Can you imagine snow that never melted. It would be like that line in Narnia where they describe it being always winter but never Christmas! Something else that might seem strange is that the seasons are different below this line. The equator separates the two halves of the world into Northern Hemisphere and Southern Hemisphere. The Southern Hemisphere has different seasons than we do. When it is summer here, it is winter there. Their Christmas is warm, that isn't much different than us here in San Diego, but it is very different from when we lived in Idaho. Let's talk about how the plants and animals are different in different areas of the earth...."

Hopefully this will help you begin to spin your own story. Go on to discuss different plants and animals and how they are different in the far north or south, how much hardier they have to be to withstand the extremes, etc. This story will help you begin to pique your child's interest as you discuss the world around them in more depth.

For today's assignment, have your child draw a globe with the focal point being where you live. Label the hemispheres, the equator, the continents that are seen from your perspective. Also, identify plants and animals that are unique to your area because of climate. Do not go over board! This is the first lesson and you have the entire block to go into more depth.

Learning about the Earth's Structure

Review the previous lesson. Is there anything that can be added to your picture? This year, instead of writing on every second school day, we are going to focus on writing one to two times per week as we cover these topics. This writing should be longer and with more depth than you have required in the past.

It is tempting to go very deep in these early geology lessons but remember, this earth science will be in the curriculum for your child as you move forward through middle school and high school so bring only what is age appropriate for now and build as they grow.

Now that you have talked about how the earth looks on the outside, let's turn today's attention to the inside. This will lay the foundation for the next lesson on how mountains are formed and how they age over time. It is believed that when the Earth was formed the heavier matter sank to the center and the lighter material floated to the outer edges. This created three main layers, a core (comprised of an inner and outer core), the mantle (upper and lower) and the crust (where we live.) The inner core is a solid hot mass that is made up mostly of heavy metals and nickel. The outer core is made up of liquid iron and nickel. It is about 4,000 miles (6,400 km) to the center of the Earth. The Earth's magnetic field is generated by the liquid iron in the outer core.

The mantle is made up of the upper and lower mantle and in total is about 1,800 miles (2,900 km) deep. About 80% of the Earth's weight comes from the mantle. The high pressures in the lower mantel keep all the rock solid while the heat from the outer core causes hot matter to rise, in turn going down as it cools. The lower mantel temperature ranges from 1,800 to 6,300 °F,

while the temperatures in the upper mantel are generally less than 1,800 °F. There are of course other theories about the inside of the earth, these are fun to discuss while working through this lesson block .

Spend some time discussing the basics of the earth's structure and then draw it.



Tectonic Plates & the Formation of the Earth's Structures

Review the previous lesson. Today you'll discuss tectonic plates. These plates cover the Earth's surface and consist of a continental crust (land) and oceanic crust (seas and oceans.) The continental crust is between 16 and 45 miles thick, while the oceanic crust is much thinner, four to seven miles thick. The oceanic crust covers more than two thirds of the Earth's surface. This crust is made up of volcanic rock that has a layer of sand covering it, along with some other matter. It is much heavier than the continental crust, which is composed of a variety of rocks. There is a boundary between the Earth's crust and the mantle and it is called the *Moho*. When the tectonic plates move they make changes in how the Earth looks and feels. Changes like forming mountains, valleys and ocean trenches. Why don't we feel all of these movements? Well much of the time they generally happen slowly over time, millions of years. Some changes can happen in less time, these changes would include earthquakes and volcanoes as well as geothermal activity. Places like Yellowstone National Park in the United States, are monitored for daily activity, not just for their beautiful geysers but for other activity as well. Known volcanoes are also constantly monitored for changes in activity, especially when there are people living in surrounding areas.

There are pockets of hot molten rock in some places under the Earth's crust, varying pressures can make these pockets erupt from a volcano (or hot pockets in places like Yellowstone.) When it

erupts liquid rock or magma comes out in the form of lava. It is believed that about 80% of the surface rock on the Earth is from volcanoes. Volcanoes can't happen just anywhere; they usually happen in places where there is a weakness in the tectonic plate. Remember, mountains and valleys don't just happen above the oceans, some of this tectonic activity is happening *in* the oceans creating deep trenches and oceanic valleys.

Do you have any geothermal activity near you? If so, take some time to visit or discuss it today. Does it attract tourists or some how add to your local economy? Take the time today to draw volcanic activity, thermal activity or both.

Mountain Formations

Review the previous lesson. Let's go to the mountains! I like to begin this lesson with looking at local mountains when possible. If you live somewhere like Florida in the United States then you will have to settle for looking at pictures or taking a drive to your nearest mountain range. Do some research on the mountains closest to you, compare them to other mountains that could be in your homeland. How high are the mountains? How old is the range? Research these things together. Talk a bit about elevation. In the United States we can go from just below sea level in a section of Louisiana to 20,000 feet above sea level in Alaska! Take some time to talk to your child about how it feels to be in the higher altitudes. How you ever been in a high altitude? Discuss altitude sickness. This can be caused by gaining altitude quickly when driving in a car or traveling in an airplane to a destination that was higher than one you came from. You may get a headache and feel very dehydrated as your body works to acclimate to the new surroundings.

When my daughter traveled to Peru for a student trip, she trained for a month to be able to handle the way she might feel climbing Machu Picchu and while traveling in Cuzco. The altitudes were between 7,972 and 11,152 feet. We lived in San Diego at the time and the elevation was near sea level. We lived other places where the elevation was between 3,000 and 6,000 feet so the adjustment for her was not too bad.

Explore your own elevation. Talk about things that may be different other elevations. Proofing time for breads will be different and baking times will vary.

Take some time to draw the nearest mountains to you or ones you have visited. As we come to the end of the first week in this block, have your child do some writing about what they have learned thus far or alternatively they could write descriptively about mountains they have visited or experiences they may have had exploring different areas.

The Rock Cycle

Review the previous lesson. In our last lesson we talked about the mountains and how high they are, today let's turn our attention to how they are formed and the types of rocks you might find when looking within a mountain.

The rock cycle breaks rocks down into classes or types. Each type of rock is found at a different place in the cycle. All of these rocks will be found at some point in the growth and formation of a mountain range. Remember that the center of the earth is very hot, this heat causes things to expand and contract, changing the surface of the earth over millions of years. As new mountains form, they grow tall and try to reach the sky. As they age more and more erosion from wind and moisture change the way the mountains look. This cycle is never ending on our earth but because it happens so slowly, we can't see it within our lifetime.

We often think of rock being dead material but it in fact is part of a very large, living structure, making it also alive in many ways.

The terms used in the rock cycle are: igneous, metamorphic and sedimentary. Igneous is divided into two classes, intrusive and extrusive. Intrusive rocks cool slowly within the earth's surface and large crystals tend to form where extrusive rocks are forced to the surface quickly and often has a more smooth appearance and smaller crystals form. Granite is the granddaddy of the rocks, it is found below the others, it is intrusive igneous rock. It sits below other rocks. Basalt and obsidian are examples of extrusive igneous rocks.

The rock cycle is this beautiful process that all of the earth goes through. Hot magma creates igneous rock, pushing up, creating land formations like mountains that in time are weathered by the wind, sun and rain, they break off and become sediments that fall into water or low areas and over time those sediments come together to form sedimentary rock that is then turned into metamorphic rock for the entire process to begin again. The sand you see at the beach also comes together to form sandstone, a sedimentary rock.

Take some time today to discuss and illustrate the rock cycle.



Biomes - The Deciduous Forest

Review the previous lesson.

Biomes have a perfect home here in geological studies. As we look at the earth and what it is composed of, the mountains, valleys, rivers, and oceans, we have to recognize that these formations, elevations and temperature differences all come together to support the plants and animals of the different areas over the earth. While we often can talk about habitats as a place that is local to where a specific plant or animal lives, a biome is a community that is made up of several different habitats in an area. Let's look at an example. A biome might be a habitat for more than one thing, for instance a squirrel's habitat may be in the forest where there are nuts to gather, it might be dry in that forest so some of the plants would support that climate and then there is the ecosystem that the squirrel lives in that includes not just what the squirrel may eat, but also what may eat the squirrel. Perhaps this forest also has a snake habitat. The spaces overlap and work together. The biome also dictates what the climate and weather will be in those habitats as each biome has specific animals, plants and weather patterns.

In these next few lessons, we will look at our homeland geography from Class Five and overlay it with biomes. In the whole of North America, we have just about every biome. For these lessons I will focus on the United States, if you are not in America, please research the biomes of your homeland and review the geography you began in Class Five.

Poems and Verses

Traditional Handwork Verses

Opening

May our hands perform their tasks with patience, May our work be done with care. May our fingers work together And may we our friendship share.

(At home I often change friendship to love.)

Closing

Our hands have completed their tasks with patience. Our work has been done with care. Our fingers have worked as friends together And we have our friendship shared.

Another Closing Verse

Now my work has ended And now my hands can rest. I thank my hands My left and right For helping me to do my best.

Verses for Oral Reciting and Memorizing

To wonder at beauty, Stand guard over truth, Look up to the noble, Decide for the good: Leads man on his journey To goals for his life, To right in his duties, To peace in his feeling, To light in his thoughts, And teaches him trust In the guidings of God In all that there is: In the wide world all, In the soul's deep soil. ~ Rudolf Steiner

To Every Thing There Is A Season, Ecclesiastes 3:1-8

To every thing there is a season, And a time to every purpose under the heaven: A time to be born, a time to die; A time to plant, and a time to pluck up that which is planted; A time to kill, and a time to heal; A time to break down, and a time to build up; A time to weep, and a time to laugh; A time to mourn, and a time to dance; A time to cast away stones, and a time to gather stones together; A time to embrace, and a time to refrain from embracing; A time to get, and a time to lose; A time to keep, and a time to Casta away; A time to rend, and a time to sew; A time to keep silence, and a time to speak; A time to love, and a time to hate; A time of war, and a time of peace.

Roma

O Roma nobilis,	O noble Rome,
Orbis et domina.	The circle and mistress.
Omnium urbium,	Of all cities,
Excellentissima.	Most excellent.
Salutem discimus	We give greetings
Tibi per omnia;	To you among all
Te benedicimus,	To you we give blessing,
Salve per saecula.	Salute through the year.

The Star by Ann Taylor and Jane Taylor

Twinkle, twinkle, little star, How I wonder what you are ! Up above the world so high, Like a diamond in the sky.

When the blazing sun is gone, When he nothing shines upon, Then you show your little light, Twinkle, twinkle, all the night.

Then the trav'ller in the dark, Thanks you for your tiny spark, He could not see which way to go, If you did not twinkle so.

In the dark blue sky you keep, And often thro' my curtains peep, For you never shut your eye, Till the sun is in the sky.

'Tis your bright and tiny spark, Lights the trav'ller in the dark : Tho' I know not what you are, Twinkle, twinkle, little star.

The Knight's Prayer from The Sarum Primer

God be in my head And in my understanding; God be in mine eyes And in my looking; God be in my mouth And in my speaking; God be in my heart And in my thinking; God be at my end And at my departing.

In the Mountains by Eugene Schwartz

Though dark the night, we move in light Amidst the radiant mountain peaks; Earth's crystal gaze, subdued by day, At night reflecting starlight seeks.

This rock kingdom, seemingly dumb, To wakeful ears is sounding; Each crag to each thunderously speaks, 'Gainst vales each voice rebounding. In limestone's chill and crystal's fire The mountains brood o'er their abyss; Intone in adamantine choir Mysteries of their genesis.

The rocks, roused from long epochs' sleep, Riddles solve of Space and Time, While metals, gleaming in the deeps, Harmoniously chime.

O seeker, slumbering in the haze, Awaken with the stones! Find crystal's flame within your gaze, Lime's might in blood and bone.

O Lady Moon by Christina Rossetti

O Lady Moon, your horns point toward the east: Shine, be increased; O Lady Moon, your horns point to the west: Wane, be at rest.

Whether the Weather

Whether the weather be fine, Or whether the weather be not, Whether the weather be cold, Or whether the weather be hot, We'll weather the weather Whatever the weather, Whether we like it or not!

A Morning Prayer for Mothers (Teachers) by Rudolf Steiner

Dear God, Make it so that I, With regard to my personal ambition, May completely extinguish myself. May Christ make true in me the Pauline words: Not I but Christ in me; So that in me the rightful holy spirit of true Education and teaching can hold sway.

One sheet per week or 60 minutes per week. If you are following the curriculum as laid out, this sheet begins week 8 of school.

Square numbers:	Cubed numbers:
6 ²	6 ³
8 2	8 3
12 ²	12 ³
5 ²	5 ³
7 ²	7 ³
0 2	0 3

List all prime numbers under 50

926	152	703 + 539	576	13
- 449	- 100		+ 550	- 10
946	385	744	22	13
+ 881	- 360	+ 743	+ 5	- 2
256	848	371	981	908
- 27	+ 100	- 225	+ 859	+ 850

Class 6 Track - Sheet 4 Answer Key

Square numbers:		Cubed	Cubed numbers:	
6 ²	36	6 ³	216	
8 2	64	83	512	
12 ²	144	12 ³	1,728	
5 2	25	5 ³	125	
7 ²	49	7 ³	343	
0 2	0	0 ³	0	

List all prime numbers under 50:

2,3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

13	576	703	152	926
- 10	+ 550	+ 539	- 100	- 449
3	1126	1242	52	477
13	22	744	385	946
- 2	+ 5	+ 743	- 360	+ 881
11	27	1487	25	1827
908	981	371	848	256
+ 850	+ 859	- 225	+ 100	- 27
1758	1840	146	948	229

One sheet per week or 60 minutes per week. If you are following the curriculum as laid out, this sheet begins week 11 of school.

Add fractions.



Class 6 Track - Sheet 7 Answer Key

Add fractions.

$\frac{5}{5}$ +	$\frac{3}{5}$ =	$\frac{3}{1-5}$		<u>+</u>	=	6 7
 10	+ 3	$=$ $\frac{2}{5}$	1 5 +	5	$=$ $1\frac{1}{5}$	
$\frac{1}{2}$ +	$\frac{2}{2}$ =	$\frac{1}{1-\frac{1}{2}}$	 6		<u>2</u> =	<u>1</u> 2
2 9 +	<u>9</u> <u>9</u> =	2 1 - 9	<u> 10 </u> 10	+ —	6 10 =	3 1 - 5
Subtract fract	tions.					
2	2 2 =	0	1 1	1 1	= 0	
2	<u>1</u> =	<u>1</u> 8	<u>6</u> 9	<u>2</u> 9	= 4	
<u>5</u> 5	<u>2</u> 5 =	<u>3</u> 5	2	2	= $\frac{1}{2}$	-
3	2 3 =	<u> </u>		<u> </u>	= <u>I</u> 7	

© 2024 Auriel's Light, Waldorf Essentials

One sheet per week or 60 minutes per week. If you are following the curriculum as laid out, this sheet begins week 16 of school.

Divide.



How many degrees are around a circle? What is that called?

Class 6 Track - Sheet 12 Answer Key



How many degrees are around a circle? 360° What is it called? circumference

One sheet per week or 60 minutes per week. These twelve sheets should be used between that last two mathematics blocks.

Write out two checks. One for \$345.65 to one of your parents and one for \$3.45 to your friend. Write your address clearly in the upper left corner of each check and don't forget to sign it!

	Date	2	0
PAY TO THE ORDER OF	\$	DOLLARS	Security Features Beck
For	*0*0*0*0*0*0*0*0*	0.0000000000000000000000000000000000000	
<pre>X 2*0*0*0*0*0*0*0*0*0*0*0*0*0*0*0*0*0*0*0</pre>	Date	2	000 1
PAY TO THE ORDER OF	Date	2	0
PAY TO THE ORDER OF	Date	2	C

We need to account for this money. Let's pretend you have a bank account with \$700.00 in it. After writing these two checks, how much do you have left? Your mom asks you to give 10% of what is left to go toward a friend's birthday gift. How much money would that be? And how much do you have left?

Class 6 Track - Sheet 14 Answer Key

Check your child's written checks. Are they correct?

After writing the checks they should have \$350.90 left in their bank account. You asked them to give 10% of that toward a gift, that would be \$35.09, leaving them with a balance of \$315.81.

One sheet per week or 60 minutes per week. These twelve sheets should be used between that last two mathematics blocks.

Fill in the missing angles using the given angles as clues.



Label opposite angles and corresponding angles.

Class 6 Track - Sheet 18 Answer Key

One sheet per week or 60 minutes per week. These twelve sheets should be used between that last two mathematics blocks.

Fill in the missing angles using the given angles as clues.



Label opposite angles and corresponding angles.

One sheet per week or 60 minutes per week. These twelve sheets should be used between that last two mathematics blocks.

Let's become friends with X. It is a game. In mathematics, seeing X usually means there is a puzzle to be solved. X or another letter is often used as a clue to tell you something is missing. We have to be careful because the X can also look a lot like our friend Times! Now we will practice.

6 + X = 16. what is X? X is just the same as if we said $6 + ___ = 16$. We know that the blank or the X has to be 10, so the answer is X=10.

Let's try some more. Solve X.

X - 10 = 14 X =

60 + 20 = X X =

42 - X = 24 X =

 $\frac{2}{5} + X = 1$ X=

Let's play with a few other letters. Remember when we converted temperatures? We used C for Celsius and F for Fahrenheit. Today's practice will use C and F instead of X.

Convert these temperatures.

If $F = 65^{\circ}$ then what is C?

If $F = 32^{\circ}$ then what is C?

If $C = 44^{\circ}$ then what is F?

If $C = 75^{\circ}$ then what is F?

Class 6 Track - Sheet 19 Answer Key

One sheet per week or 60 minutes per week. These twelve sheets should be used between that last two mathematics blocks.

Let's become friends with X. It is a game. In mathematics, seeing X usually means there is a puzzle to be solved. X or another letter is often used as a clue to tell you something is missing. We have to be careful because the X can also look a lot like our friend Times! Now we will practice.

6 + X = 16. what is X? X is just the same as if we said $6 + ___ = 16$. We know that the blank or the X has to be 10, so the answer is X=10.

Let's try some more. Solve X.

X - 10 = 14 X = 24

 $60 + 20 = X \quad X = 80$

42 - X = 24 X = 18

 $\frac{2}{5} + X = 1$ $X = \frac{3}{5}$

Let's play with a few other letters. Remember when we converted temperatures? We used C for Celsius and F for Fahrenheit. Today's practice will use C and F instead of X.

Convert these temperatures.

If $F = 65^\circ$ then what is C? $C = 18.3333^\circ$

If $F = 32^{\circ}$ then what is C? C= 0°

If $C = 44^\circ$ then what is F? F = 111.2°

If C = 75° then what is F? F = 167°

One sheet per week or 60 minutes per week. These four sheets should be used after the last mathematics block.

Solve for *x*.

- x + 42 + 1 = 73 x + 4 + 26 = 52 34 + x + 9 = 69
- 3 + 24 + x = 61 31 + x + 13 = 60 x + 5 + 30 = 58
- x + 8 + 33 = 56 x + 30 + 33 = 70 44 + 14 + x = 69
- 21 + x + 19 = 84 36 + x + 28 = 92 x + 2 + 44 = 95

Judy had four errands to run. She needed to buy a gallon of milk and pound of butter from the dairy, a dozen eggs and a pound of meat from the farmer, wool yarn from the spinner and ink for her new pen. Judy has \$65, she would like to keep \$10 for savings.

How much does Judy have to spend?

Milk is \$5 per gallon and butter is \$6 per pound. Eggs are \$6 for a dozen and the meat is \$7 per pound. Yarn is \$5 per skein and Judy needs 4 skeins. How much does she have left for ink?

Class 6 Track - Sheet 23 Answer Key

One sheet per week or 60 minutes per week. These four sheets should be used after the last mathematics block.

Solve for *x*.

x + 42 + 1 = 73 x = 30	x + 4 + 26 = 52 x = 22	34 + x + 9 = 69 $x = 26$
3 + 24 + x = 61	31 + x + 13 = 60	x + 5 + 30 = 58
x= 34	x = 16	x = 23
x + 8 + 33 = 56	x + 30 + 33 = 70	44 + 14 + x = 69
x = 15	x = 7	x = 11
21 + x + 19 = 84	36 + x + 28 = 92	x + 2 + 44 = 95
x = 44	x = 28	x = 49

Judy had four errands to run. She needed to buy a gallon of milk and pound of butter from the dairy, a dozen eggs and a pound of meat from the farmer, wool yarn from the spinner and ink for her new pen. Judy has \$65, she would like to keep \$10 for savings.

How much does Judy have to spend? \$55

Milk is \$5 per gallon and butter is \$6 per pound. Eggs are \$6 for a dozen and the meat is \$7 per pound. Yarn is \$5 per skein and Judy needs 4 skeins. How much does she have left for ink? Judy spent \$44 and has \$11 to spend on ink.