

Grade 4

Teacher Manual



Oak Meadow

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Introduction

This grade 4 teacher manual is intended to help you support your student's learning throughout the year. Please read the introductions to this book and to your student's fourth grade coursebook before you get started.

This teacher manual provides the complete text of each assignment, answers to any questions, suggestions for supporting your child's academic progress, and tools to help you evaluate student work. You will find answers for assignments in language arts, social studies, and science. A math answer key is provided in the back of the student's coursebook. This teacher manual doesn't give "answers" for every assignment since many are self-explanatory. Also, the reading selections and the text for art and music assignments are not included, and there are no answers for art assignments. Please refer to the coursebook for the full lesson content.

You are encouraged to use the assignment summaries and learning assessments in each lesson to help you evaluate, track, and document your student's progress. There is also a weekly planner to help you and your student organize each day's work to ensure steady progress.

This curriculum is not intended to be a set of rigid guidelines. It is a tool to help you enter into the subject matter in a creative, experiential way. Use it accordingly, adding and subtracting as best suits your child's needs and interests. We hope that it will inspire your imagination and lead you into your own methods of study.

Note about workload: Please note that there are a wide variety of assignments included in this course to give students many options for engaging with the material. Students are not expected to complete every single assignment. You can help your student determine which assignments to focus on each week, based on the student's interests, strengths, and areas needing development. You might also give your student the option to complete some of the written assignments orally. Keep an eye on the workload as your student progresses, and make adjustments so that the student has time for meaningful learning experiences rather than rushing to try to get everything done. If your student is enrolled in Oak Meadow School, please consult with your teacher when making adjustments to the workload.

Emerging Independence in Fourth Grade

Many parents of fourth graders notice their child becoming increasingly critical, argumentative, moody, or withdrawn. This is part of a natural awakening of deeper awareness within the child. It may

be accompanied by physical symptoms such as headaches or stomachaches, and concerns about things in life that have never bothered the child before. At this age, many children undergo a transformation related to the growth of their sense of self. This brings a deeper consciousness of their surroundings, and often, the beginnings of critical thinking.

At this time, many children begin to question things they have always taken for granted, and to probe for reassurance that they are safe. Others may experience fears that never existed before. Some children become overly critical of those around them, or start questioning if the adults in their lives really know the things they seem to know.

Many fourth graders are in the midst of a tremendous growth spurt in the development of their individuality. They need a great deal of acceptance and understanding during this important transition. Parents and family can help by being willing to explore the questions their child asks in an open-ended, thoughtful fashion. Realize that the child is developing a private self and therefore a private life within, which needs nurturing.

In terms of your child's academic development, you may notice that your student craves independence. Recognizing this, the fourth grade coursebook has been designed to support your child in gaining academic independence. It is written directly to your child. We have done this because we believe that fourth graders appreciate being spoken to directly, and because we feel that during the fourth grade year students are ready to handle the responsibility of interpreting material on their own. However, we also know that you will play a vital role in helping your child to make sense of the information.

Children entering the fourth grade have generally mastered a handful of academic skills and yet are still developing a sense of their own self-confidence, so they benefit greatly from your support and encouragement. Your guidance with specific tasks, interest in the material, and enthusiasm for both the learning process and your student's progress will bring the material to life and allow your child to have a positive and successful learning experience.

As your child begins the gradual transition to becoming an independent learner, it is important that your child not be required to take on too much responsibility too quickly. Use your own knowledge of your child's academic and organizational strengths and weaknesses to anticipate where they will need clarification and provide explanations even if your child does not ask for help directly. Discuss ways that you and your child can split up the responsibility for organizing work, planning projects, and managing time. Solicit ideas for solving problems before presenting your own. This will enable your child to have confidence in their ability to manage weekly assignments as well as a sense of ownership and responsibility in the learning process, a necessary skill for entering the upcoming middle school years.

Literature and Reading Aloud

Ask your child to read aloud to you daily. Reading aloud with your child is an important part of the language arts curriculum. Not only does it help your child learn to read more fluidly, but it also provides an opportunity to develop critical thinking skills. Three important critical thinking skills that are

developed through interactive reading are summarizing, empathizing (seeing and feeling things from another person's perspective), and making predictions. As you and your child read together, you might occasionally pause and ask questions that will deepen their thinking. Here are some reflective questions that can be adapted to fit almost any book or story:

- What do you think is going to happen next?
- How do you think that character is going to react to what just happened?
- Why do you think that character did what he/she did?
- What were the three most important things that happened in the last chapter?
- How do you think this story is going to end?

Also, ask your child to write down any unfamiliar words and look them up at a later time. Help your child to use the information obtained from the text to infer word meaning whenever possible.

If the books suggested in this curriculum are beyond your child's reading level, you may read them aloud, and then find alternate selections at the appropriate reading level for your child to practice reading daily.

Science Explorations

The primary focus on science this year is to develop the skills of observation. Students are encouraged to see things as they are, with freshness, curiosity, and a sense of wonder and appreciation.

Observation is to the scientist what inspiration is to the artist.

The urge to know and to create often begins to assert itself in the fourth grade. This urge can be expressed as a search for identity and for recognition, as the desire to explore the question, "Where do I fit in this world?" It is natural for children at this age to become aware of larger and more varied relationships. In the mass of confusion of opposing opinions, beliefs, and desires with which they are confronted, they start to want to understand and investigate the world in more detail. It is the usual reaction of parents and educators at this point to start feeding information to their children. However, the mere accumulation of facts and knowledge does not in itself make a child more intelligent, nor does it necessarily make one feel more of an important part of this world.

Through guided observation and through their interactions with nature, students should be able to formulate questions of significance, and discover some answers or clues. As parents and teachers we must remember that having many unanswered questions generally shows more intellectual progress than having many answers that were simply collected from others. Knowledge arrived at through observation produces more independence, appreciation, responsibility, and conviction.

In addition to improving skills of observation, in this course students will learn to identify the order and purpose in nature, and to recognize the relationship between form and function. In doing so, they will also cultivate an appreciation for beauty in the diverse systems of the natural world.

These objectives underlie every lesson. If we constantly keep them in mind, then any activity can become part of the lesson. For example, you might ask your child to help cut up vegetables for a salad or a casserole. As the vegetables are being cut, observe them; really look at them as if for the first time. What are they like when they are whole? Are they leaves, stalks, fruits, seeds, or roots? What are their patterns, textures, colors, and design? Where do they come from? What happens when you cut them? Do their patterns suggest a way of cutting them? What is revealed when they are cut in different ways? Do they have beauty, harmony, proportion? How easy would it be to reproduce them exactly and in detail by drawing, or by modeling? How long did it take them to grow? How did they travel in order to get to your kitchen table? Who is responsible for making it possible for you to eat them? Constant observation and appreciation create a deeper mental and emotional awareness, which makes us more receptive to the learning experiences available in any given moment.

Art and Music

Many fourth graders begin to measure their work in relation to the outer world. As a consequence, the child who was once content to draw a horse according to what an inner perception of a horse is now often reluctant to draw and frustrated when it doesn't come out looking like the real animal in nature. When this happens repeatedly it is not unusual for the child to cease to draw altogether. However, this does not have to be the norm.

When this shift in attitude occurs, it heralds an exciting time of a new quality of observation developing within the child. What we are witnessing is the emerging intellect out of the imagination of the child. By developing the powers of observation and applying them to drawing, we are able to bring a balance between these two forces, developing both the imagination and the intellect within the child. During this year students will learn a way in which to observe nature (developing the intellect) and a technique in drawing (developing an outlet for the imagination) that will allow them to create art with a new confidence.

Your main goal for supporting your student's art lessons is to encourage them in any creative and artistic effort. The coursebook provides detailed instructions and pictures, and you are strongly encouraged to experiment with learning the techniques of drawing along with your child. This will help you have a better understanding of what your child is learning and give your child a chance to see how every artist approaches art differently. Sharing the joy of creating art is a wonderful way to support your child's artistic development.

It is not unusual for children of this age to get frustrated when they are drawing from life. If you are drawing next to your child, your child may try to compare their drawing to yours. Your child may want to start over, or erase certain parts of the drawing, if they feel that the drawing is not good enough. Generally, we want to encourage children to follow through on drawings they've started, yet we all know that it is no fun to work on something we don't like. Remind your child that, as the artist of the drawing, they can start over at any time. However, also encourage your child to try to work through the problems before giving up every time. When the piece is finished, your child may be pleasantly surprised by what has been created.

If you have an art museum or gallery in your area, try to find time to visit with your child several times throughout the year. Encourage your child to discuss the artwork and look for examples of the techniques you have been working on. Bring your sketchbooks and copy paintings or drawings you enjoy. This is one of the best ways to learn about the artistic process, and your child will benefit from watching you learn alongside them.

Another creative outlet your child will explore this year is music. The focus in music this year will be on playing duets on the recorder, and you are encouraged to play along with your child. If you have worked with the Oak Meadow curriculum in grades one through three, you will already have extensive experience with the recorder, and will have no difficulty playing duets with your children. If you are unable to do this, however, try to find another person who can be a musical partner for your child. Learning to play music with another person takes skill and patience. You can support your child's learning by allowing plenty of time for practice and experimentation. There is no need to hurry through the songs in Oak Meadow's Recorder Duets. The book has 13 duets in it, so there is plenty of time to learn all of them, and to explore other songs.

Throughout the year, your child will be encouraged to give a music recital. Even small performances for just one or two people can be enough to motivate your child to practice more. You and your child can make these performances more festive by dressing up, making snacks to offer to guests, and by creating programs to hand out to the audience (even if the audience is just a little brother or sister). The emphasis should be on the enjoyment of music, not on the pressure to perform flawlessly.

Supporting Your Independent Learner

Here are some suggestions for ways to ease the transition into independent learning. Eventually you will want your child to take the lead in managing the lessons, but for now, provide as much structure and security as possible.

- Help your child set up a work area. Choose a spot that is pleasantly lit and that doesn't get too warm or too cold throughout the day. Make sure there is space to store all of the necessary supplies, including the main lesson books, dictionary, pens and pencils, art supplies, and future research materials. At the end of each lesson help your child straighten up the area. Encourage your student to keep it tidy.
- When new topics and projects are introduced, devise ways to keep track of materials. Keep folders on hand to help your child organize papers, note cards, and research materials. Offer suggestions for organizational systems that have worked for you.
- Create a weekly schedule with your child using the student planner included in the coursebook. Allot enough time for each subject as well as for independent reading. Encourage your child to stick to the schedule as closely as possible for the first few weeks. Help your child keep track of how long certain tasks take so that your student can start to manage their own schedule later on in the year. Set aside time each week to discuss with your child how the schedule is working and to plan the next week's schedule.

Remember that your role in your child's learning is vital. Regardless of your student's abilities, they will benefit from your active involvement in each lesson. Familiarize yourself with the lesson material ahead of time so that you can help your child interpret the content and the instructions. Try to anticipate places where you think your child may get confused or overwhelmed and provide additional information or support when needed.

Fourth grade is an important year in the academic development of your child, and we are confident that your child's emergence as an independent learner will be both fun and exciting. Enjoy the journey with your child!



Grade

4

Lesson 1

ASSIGNMENT SUMMARY

LANGUAGE ARTS

- ☐ Begin reading *Stuart Little*.
- ☐ Identify nouns and verbs.
- ☐ Correct errors in punctuation and capitalization.
- ☐ Memorize spelling words and take a quiz.
- ☐ Begin writing in a journal.

SOCIAL STUDIES

- ☐ Imagine and draw a very old tree.
- ☐ Make a list of 10 things your tree has seen.
- ☐ Begin making a landscape model.
- ☐ Activity: Local Topography Project: Choosing a Site

SCIENCE

- ☐ Draw observations of different fruits and vegetables.
- ☐ Write a description of the form and quality of the fruit.
- ☐ Draw a cross section of the fruit.

ART

- ☐ Become familiar with the seven laws of perspective.
- ☐ Draw no-outline circles.

MUSIC

- ☐ Choose a duet to begin learning.

Language Arts

Reading

This week, begin reading *Stuart Little* by E. B. White. You should aim to finish the book in three weeks.

Assignments

Before your child begins learning new grammar material, it is important to review previously learned material. This is an important habit to develop and follow regularly. Spend a few minutes each day helping your child recall the work of the previous day. This will help solidify the knowledge and prepare your student for the work ahead.

1. To begin reviewing nouns and verbs, write in your main lesson book 10 to 12 short sentences about various animals and what they do. Here are some examples:

The fish swims.

The bird flies.

The lion roars.

The owl hoots.

Make sure that each sentence has just one noun and one verb, and that each sentence starts with a capital letter and ends with a punctuation mark. Keep the sentences simple! Once you are done, go through and circle the nouns in blue and the verbs in red. Note: The word *the* is not a noun; it's a "helping word."

Using the sample sentences above, here is an example of what your child's work will look like:

The fish swims.

The bird flies.

The lion roars.

The owl hoots.

If your child has trouble differentiating between nouns and verbs, you can help by asking "Who or what is the sentence about?" (that's the noun), and "What is happening in the sentence?" (that's the verb).

2. The next day, recall the sentences you wrote and see how many sentences you can remember without looking at your main lesson book. After recalling as many of the sentences as possible, open your main lesson book and read the sentences aloud.

Next, review the four things that every sentence must have:

- capital letter at the beginning
- noun
- verb
- punctuation mark at the end

Ask your parent to write in your main lesson book a short paragraph of simple sentences with *no* punctuation or capitalization. Using a colored pencil, you will correct the paragraph, dividing it into complete sentences by adding punctuation and capitalization. Here is an example of the kind of paragraph your parent might write:

the dog ran away the girl cried sadly the boy ran after the dog the orange cat mewed the old man slept the moon rose slowly

When writing a faulty paragraph for your child to correct, use simple sentences at first. Don't try to "trick" your child in the first lesson. You want to build up a sense of success at first and then slowly introduce more challenging work.

Here is how the example above would be corrected:

The dog ran away. The girl cried sadly. The boy ran after the dog.

The orange cat mewed. The old man slept. The moon rose slowly.

In this course, you will sometimes be asked to create original exercises. If you are not comfortable with this responsibility, or do not have the time, feel free to find a book of grammar exercises your child can work from directly.

3. Ask a parent to help you create a list of five to ten spelling words, either from the list in the appendix or from your written work or reading. Practice the words from Monday through Wednesday. Use the creative suggestions in the appendix for your spelling practice. On Thursday, test yourself to see how well you are remembering your spelling words. If you make some mistakes, review those words before the quiz on Friday. Words you have not mastered by the end of Friday can be added to next week's list.

You may want to keep lists of your spelling words in your main lesson book, or in a separate spelling notebook.

Some children are very poor spellers who spell most words incorrectly. Others seem to have an almost instinctual ability to spell. Spelling ability is partially related to the learning style of the student and to genetic predisposition, but it also has to do with general reading strength and practice.

Start each week by creating a new list. The list can include words from the reading, a selection from the word lists in the coursebook appendix, and words your child recently misspelled in written work. Review meanings of words, as well as the proper spelling and tricks for remembering the spelling. Some children can easily learn 10 to 12 words per week. Some can handle only five. Trial and error will help you discover what is right for your child.

Encourage your student to practice the spelling words in a different way each week. This will help keep things interesting. When you give the spelling quiz at the end of the week, read each word aloud and vary the order from the list with which your child practiced all week. If your child misspells any words on the spelling quiz, help them make the necessary corrections, and then add those words to next week's list to give your child more time to learn them.

4. Begin keeping a journal. Your journal can be a binder, notebook, sketchbook, or any other kind of book that works for you. Get into the habit of writing in your journal at least three times a week (perhaps every other day). You can write about anything you like! You might write about what you experienced the day before, or about something that happened to you years ago. You can invent stories and write letters. Make sure you date each journal entry.

Writing in a journal (or *journaling*) lets you write informally, away from the constraints of an assignment. Journaling has its own kind of freedom, and writing in it regularly will improve both your ability and your confidence as a writer. We will provide some suggestions for writing topics because we know that sometimes it's difficult to come up with ideas, but we encourage you to come up with ideas of your own.

Use your journal to practice your cursive writing. Start paying attention to your handwriting. Make sure letters following *o*'s and *v*'s come off the top of the *o* and *v*, that lowercase *m*'s have three humps and *n*'s have two. The lowercase *q* should be distinguished from a *g*, just as the lowercase *u* and *v* need to be clearly different from each other.

The goal is to learn how to write beautifully *and* quickly. In order to find the right balance, you will sometimes have to focus on the form of the writing and at other times you will have to focus on speed. If it takes all morning to write two sentences, you are going too slowly. However, if you finish your page in one minute, with writing that no one can read, then you are defeating the purpose of learning to write fluidly. If you find writing in cursive very challenging, alternate the days you use it. With regular practice, you will find that cursive writing gets easier and easier.

It is important that your child's journal writing experience is largely free of judgment or constraints. This will allow your child to experience the freedom and flow of writing. The most important way you can support your child's journal writing is to encourage them to write on a regular basis (three times a week is recommended) and to be enthusiastic (not judgmental) about what your child has written if they want to share it with you.

Have your child write on both the front and back of the journal pages. Not only does this conserve paper, but it also gives the notebook the appearance of a "real" book being written, which is very fulfilling for a child. Writing in the journal with colored pencils makes a much more beautiful book, and of course, illustrations are always a lovely addition.

Try to avoid using lined paper. Many parents are dismayed by the crooked lines when a child is using unlined paper. However, those crooked lines are very important. When a child sees that their writing is crooked, the child is forced to draw forth from within the necessary strength and balance to keep the lines straight. Sooner or later the lines will become straight, and the child will have grown inwardly. However, if they are always kept within bounds by straight lines, children never have the opportunity to develop inner strength and balance to correct such crookedness.

The subject material for journal writing can simply be the content of life's daily activities. The purpose is to help the child's writing flow more freely and to help bring more awareness to the regular life events. When recalling events of the previous days, let your child struggle with memory a bit before you do the remembering for them.

When reviewing your student's journal, make a note of any areas with which your child has trouble so you can work on those later. Rather than correcting the journal, take time

to focus on problem areas at a separate time so your child doesn't feel you are criticizing their journal writing.

If your child is struggling with penmanship, or has trouble writing in cursive, you are encouraged to refer back to the third grade course. Take the time to do regular form drawing practice, as outlined there. Form drawing leads easily into cursive writing, especially if done often so the child becomes accustomed to the “flowing” motion of the lines. We encourage you to have your child do all sizes of form drawing, both large and small, as well as many different kinds of patterns. Handwork activities (such as whittling, knitting, crocheting, clay sculpting, and beeswax modeling) can also improve writing by strengthening muscles and developing coordination. It is worth taking the time to engage in these handwork activities frequently with your child; you will soon notice an increase in your child's dexterity in writing, and they will have some lovely craft items to show for it!

Social Studies

Assignments

1. Take some time to imagine your tree in great detail. Remember, your tree is very old. How tall is it? Do the branches start low to the ground or does the trunk rise up straight and tall before the first branches begin? When you have a strong image of your tree, draw a picture of it in your social studies main lesson book. Try to make your drawing as detailed as possible.

When you have completed your drawing, take a few minutes to appreciate it. Imagine that this tree has been growing for hundreds of years and that it has witnessed all of the events that have happened near your home since it was a tiny little sapling growing out of the ground.

Your child might appreciate your help in envisioning this tree. You might want to discuss ideas about the tree before your child begins to draw to help your child create a strong mental image of a very old tree.

2. On the next page of your main lesson book, make a list of about ten things that your tree has seen in its lifetime. See how far back you can go. Start with events that have happened in your lifetime and work backward. It's all right if you can't come up with a lot of events. Title this page “Events My Tree Has Seen” and leave the rest of the page blank.

As the year progresses, you will be adding many things to this list. Your knowledge of your area and its history will increase and you will have a much better sense of the events that your tree has witnessed. Every few weeks we will ask you to add new things to this list. In the meantime, feel free to give your tree a special name, and think about it from time to time as you learn about the area around you.

You can help jog your child's memories about past events if they seem stuck with this assignment. Do not worry about teaching your child about local history—this assignment

is just meant to allow your child to begin considering historical events in a personally relevant way.

3. This week you will begin making a miniature landscape model based on the topography of your local area. Topography is the shape and features of the land. The first step is to choose a site for your landscape model. You might have to make several excursions to find a suitable place. See the activity section below for instructions on how to get started. Read through them with a parent and make sure you understand all of the different steps before you get started.

In your main lesson book, keep track of the work you accomplish on each excursion, including the following:

- **Sketches:** Sketches of the site don't have to be elaborate but they should contain specific observations of the area. Label items in the sketches for future reference.
- **Written observations:** Write notes of your observations of the area (you don't have to write in complete sentences). Include specific details. Record smells and sounds as well as sights and textures.
- **Short summary of the day's work:** Write down any discoveries you made and describe how the day went. Think about what was easy and what was more difficult. Explain any problems you encountered and ideas for how you could avoid them in the future.

The local topography project is a long-term project that extends over three weeks. In the first week you and your child will visit the site to make observations and to collect samples. During the second and third weeks your child will make a scale model of the site incorporating observations made during your visits. This may be the first time your child has had to record information to be used later. Help your student think through the kinds of observations that will be most useful for building a model. Together, you may want to come up with some questions ahead of time that your child can answer while making observations at the site. For example: How much of the site is covered by trees? Is there any water on the site? Are there any objects made by humans on the site?

This first lesson is a great opportunity for your child to get comfortable using the main lesson book. Encourage your child to write in it as much as possible and to think of it as a place to keep track of observations. Remember that you can paste things into the main lesson book later if it is easier to take a smaller notebook with you on your expeditions.

Your child's ongoing log of the project will contain different types of entries. Encourage your child to record information in a way that keeps it organized and makes sense to them. At the very least, each day's log entry should contain:

- Sketches
- Written observations
- A short summary of each day's work

You may want to consider using a field guide of local trees and plants to help you complete the list of species found in your area. If you do not have a field guide at home, you can usually find one in the reference section of your local library.

This lesson contains many detailed instructions. This is a good opportunity for you and your child to learn a bit about how to manage a long-term project with multiple steps. Does your child find the instructions overwhelming? Do they follow each one in sequence or choose to skip ahead? Does your child have an easy or difficult time keeping track of the materials? As you work on the project, gently engage your child to be aware of how to organize the work.

Thinking about how the day went is a good opportunity for your child to think about their learning style. Reflection of this sort may not come easily at first, so you may want to ask your child questions that will encourage deeper thinking. For example: What is the easiest part of this project so far? What is the most difficult? What problems did you encounter today? How did you solve them? What parts of this project are you most excited about?

Science

Assignments

1. Your first observation will be of several different kinds of fruit. Choose two or three fruits (or vegetables) to explore on one day, and two or three others to do on another day. Remember, many so-called “vegetables” are really fruits because they contain seeds on the inside: tomatoes, cucumbers, squash, pumpkins, etc. Explore some of them too!

You will examine each piece thoroughly and try to experience it with all the senses. After a period of examination, carefully draw the fruit in the science main lesson book. You will make two drawings of each piece of fruit, using two different viewpoints.

These drawings should not just be casual sketches. Make each drawing carefully, using colored pencils to portray what you see as clearly as possible.

All of these drawings should not be made in one day. Take time with your drawings. Make them different sizes, from small to large. Expand tiny things into large pictures, and shrink large items into tiny pictures. Consider doing huge paintings of things that are actually very small. Let yourself experience all these wonders of nature in a new way. Enjoy yourself, and allow yourself to become truly involved in the discovery of the hidden world of geometry all around you.

Students will practice drawing from varying perspectives. Drawings should be carefully done and in full color.

2. After drawing each piece of fruit, you will write a written description in the science main lesson book. First describe its form and then describe its quality. The *form* is the fruit’s outward appearance—what everyone can see. Words that describe its shape, size, and color are good

for describing form. The fruit's *quality* is how you experience it personally. Words that express opinions are good for describing quality. The words *delicious* and *beautiful* express quality.

When you are satisfied with your descriptions, read aloud your description of the form (shape) to a friend or family member who does not know what fruit is being described (make sure you don't say the name of the fruit in your description!). Have that person try to draw it from the description. If the person cannot guess what the item is from the description of its form, read the description of the qualities of the fruit. This can be a good test of communication skills.

During this first observation activity, your child may have a difficult time coming up with words to describe what is being observed. At this age, children tend to be quite literal in their thinking and they rely heavily on visual cues when describing objects. Encourage your child to close their eyes and use the other senses.

3. After you have drawn the whole piece of fruit from two points of view and have written a description of both its outer form and its quality, you are ready for the next step. Ask a parent to help you cut the fruit in a cross section as in the following examples:



(Note: When cutting fruit with hard pits in the center, such as peaches or plums, it's easier if you score around the pit and then separate the two halves, leaving the pit in one side.)

Now draw the fruit from the top, showing the pattern of the cross section. (This will be your third perspective of that fruit.) See how your picture changes and your knowledge increases? What new qualities are you aware of when you cut the fruit? Does the cut fruit reveal some unexpected pattern? You will probably notice that the fruit's scent is released when you cut it, which may give a new dimension to your knowledge.

When you finish observing and drawing the cross sections of the fruit, use it to make a fruit salad!

Students can be encouraged to discuss what they see either before or after they draw.



Grade

4

Lesson 2

ASSIGNMENT SUMMARY

LANGUAGE ARTS

- ☐ Continue reading *Stuart Little*.
- ☐ Play a game making up sentences with nouns and verbs.
- ☐ Write several sentences identifying nouns and verbs.
- ☐ Practice 5–10 spelling words, and take a spelling quiz.
- ☐ Compose journal entries in cursive.

SOCIAL STUDIES

- ☐ Begin building landscape model.
- ☐ Identify and collect different types of soil.
- ☐ Begin layering and sculpting the soil.
- ☐ Activity: Building Your Landscape Model

SCIENCE

- ☐ Observe and sketch natural items under magnification.
- ☐ Describe observations of patterns and shapes in nature.
- ☐ Identify similarities between historical artifacts and patterns in nature.

ART

- ☐ Use tonal technique to create simple geometric shapes.

MUSIC

- ☐ Continue working on a duet.
- ☐ Work on maintaining a consistent tempo.

Language Arts

Reading

Continue reading *Stuart Little*. Remember to alternate between reading some of it silently and some of it out loud with a parent.

Assignments

1. Use your noun and verb cards to create a variety of sentences. Play this sentence-building game several times this week. Add new nouns and verbs to your collection throughout the week.

Two days this week, write down several of the sentences you created. Circle or shade the nouns in blue and the verbs in red. Be sure that each sentence begins with a capital letter and ends with a punctuation mark.

When you create sentences for grammar activities, try to keep them simple. If your student asks to learn about other parts of speech, feel free to expand on this activity, as long as the student has mastered the ability to identify nouns and verbs.

2. Write in your journal every other day (or more often, if you'd like!). Date each journal entry so you know when you wrote it.

If you are having a difficult time coming up with something to write about, here are two ideas:

- Write about one of your favorite places to visit.
- What would be the best thing about being tiny like Stuart Little?

Journal writing is a great time for your child to enjoy writing without the added pressure of spelling and other “rules” for writing. Although it is always important to try to use proper writing conventions, you might want to remind your student that the primary focus of journal writing is on recording ideas rather than on making sure everything is correct.

3. Ask a parent to help you choose five to ten spelling words to learn this week. Remember to add the words you missed on last week's quiz so you have a little more time to memorize them. Learn both the spelling and the meaning of each word. Try a different practice technique from the one you used last week. On Thursday, take a practice test to see which words you still need to work on. On Friday, take a spelling quiz.

Refer back to the list of creative spelling practice ideas in the appendix of the coursebook as you go through the lessons. Try different ideas until you find your favorites.

Social Studies

Assignments

1. Begin building your landscape by constructing a box or preparing the area where it will be built.
2. Collect different types of soil for your landscape: topsoil, stones and pebbles, and subsoil.
3. Begin layering and sculpting the soil into the shapes you want.

Take some time to reflect on how the project is progressing. These types of projects are great for fostering a genuine sense of accomplishment in students. However, the parent often ends up doing a large share of the work. Identify areas where you could hand over more responsibility to your child.

Science

Shapes Found in Nature

The next observation exercises can be done during nature walks, in a vacant lot, or in a garden. You will be using jeweler's loupes to do close-up observations to discover natural patterns and geometry.

To use the jeweler's loupes, place the wide end of the first one up to the eye, nestling it up against the upper cheekbones and side of the nose, completely covering the eye. It's best to close the other eye. One loupe gives you five times (5x) magnification. Stacking the second one in the first provides 10x magnification. (If your loupe needs cleaning, use a soft cloth rather than using tissue, as the wood pulp in the tissue can scratch the lens. You may use a small amount of rubbing alcohol, if necessary.)

Assignments

1. Using jeweler's loupes (or a magnifying glass), closely examine a variety of items in nature. For instance, you might look at a spider's web, flower petals, seedpods, moss, tree bark, etc. See if you can discover natural patterns of geometric shapes. In your science main lesson book, make some sketches of what you see.

The sketches should highlight geometric shapes and patterns in a magnified view of natural objects.

2. In your main lesson book, write the answers to the following questions about your nature observations:
 - What did you examine under magnification?
 - What different shapes did you find?
 - When viewed under magnification, how do these items look different from their usual appearance with the naked eye?
 - What are some of the most common shapes?
 - What function does the shape appear to serve in the overall structure? Why do you think these shapes appear?

The student should answer each of the questions above. The final questions may be the most challenging for the student to answer. For instance, a student might respond that horizontal ridges in tree bark may serve to guide rainwater to the roots of the tree, or to give insects places to hide, or to allow animals to more easily climb the tree. They are not expected to know all the answers right now, but rather to begin thinking about the relationship of form to function.

3. On another day, look at a variety of objects from around your house. If possible, look at traditional crafts of native peoples from all continents. Traditional crafts are often made of natural materials such as mud, straw, cane, shell, gourd, wood, and stone. Pay attention to the

patterns you see in these objects. Interestingly, there are often similarities between patterns made by people who never had any contact with one another.

In your main lesson book, answer the following questions about the manmade objects you observed:

- Are the crafts or artifacts imitating something in nature?
- Does the pattern or quality of the material used require the craftsperson to make a certain shape?
- What shapes or items are used to decorate the objects?
- How do these shapes or items relate to the surrounding environment and to the overall object itself?

It may help your student to discuss answers to these questions with you before writing them down. Try to encourage your student to deepen their observations rather than just offering your own ideas.



Grade

4

Lesson 6

ASSIGNMENT SUMMARY

LANGUAGE ARTS

- ☐ Finish reading *The Search for Delicious*.
- ☐ Complete a project related to *The Search for Delicious*.
- ☐ Alphabetize and memorize spelling words, and take a spelling quiz.
- ☐ Practice using different types of ending punctuation.
- ☐ Write several journal entries.

SOCIAL STUDIES

- ☐ Create figurines of local animals.
- ☐ Draw an old tree surrounded by local plants and animals.
- ☐ Add to the list of “Events My Tree Has Seen.”

SCIENCE

- ☐ Examine a peanut and draw the seed.
- ☐ Set up a seed sprouting experiment.
- ☐ Predict experiment results.

ART

- ☐ Complete a long-range drawing using the surface law of perspective.

MUSIC

- ☐ Perform a small recital of music learned so far.

Language Arts

Reading

Finish reading *The Search for Delicious*.

Assignments

1. When you finish reading *The Search for Delicious*, complete **one** of the following activities. Aim to do your best work. Make sure you write neatly and follow the instructions carefully.

Final projects provide a good opportunity to assess how well your child is incorporating the grammar material you have covered over the last few weeks. Look to see that

your child is writing in complete sentences and that the first letter of each sentence is capitalized.

- a. Write a book report (see lesson 3 for instructions).

The format for a basic book report is provided in lesson 3. If your child chose to do a book report for *Stuart Little*, encourage a different assignment choice this time. When assessing a basic book report, check to see that your child has included enough details to evoke the spirit of the book. It is tempting for students at this age to make vague statements. Encourage your child to use character names and place names as well as specific scenes and details from the book.

- b. Answer the following question: Do you think it's possible for everyone to agree on one definition of "delicious"? Why or why not? Plan to write about one page (two or three short paragraphs).

This question provides your child with an opportunity to form an opinion and to back it up. There is no right answer to this question. If you find inadequate reasons provided to support their opinion, help your student think through the argument and discuss how to make it more convincing.

- c. Imagine a different future for Gaylen than the one described in the epilogue. Write a new epilogue for the book that contains a description of the life you have created for Gaylen. Make sure it ties into the main story somehow.

Look to see that your child is incorporating elements from the main story into this new epilogue. In the book's epilogue, author Natalie Babbitt has Gaylen marrying a character who appears earlier in the book. If the future created for Gaylen is too fantastical, steer your student toward some of the book's more familiar elements. Point out how the details of Gaylen's future are told through the use of a conversation between the Prime Minister and a minstrel. Can your child use a similar literary device?

- d. Conduct your own search for delicious by polling your friends and family. Describe the experience in log entries—as though you're a scientist gathering data—or as an adventure story with you as the main character. Feel free to invent details to make the tale more exciting.

This question allows your child a lot of creative freedom. Encourage your student to gather data from eight or ten people (or more!), and then present the data in an imaginative way.

- e. Choose a scene from the book and act it out. Gather a group of friends to help you. Write out a script and create costumes. Perform the scene for an audience.

This option allows your child to work in a group and to employ a whole host of different skills. Make sure that the student takes the time to write out a script before focusing on the other aspects of the performance, such as costumes or set. Encourage your student

to introduce the play with a short narrative to put the scene into context so that the audience understands a little of the background before the action begins.

2. Create a spelling list and practice the words this week. You should learn the meaning of each word and alphabetize the entire list in your main lesson book. Take a spelling quiz at the end of the week.
3. Write out a few sentences that can end with a period. Then ask yourself whether the same sentence could also end with a question mark or an exclamation point. Some sentences work really well:

The pizza is all gone.

The pizza is all gone?

The pizza is all gone!

Others sound a little funny as a question or an exclamation:

The pizza has cheese on it.

The pizza has cheese on it?

The pizza has cheese on it!

Try acting out the sentences for someone else, making it clear by your tone of voice and facial expression which type of sentence it is (a statement that ends in a period, a question, or an exclamation). Together, determine whether you think the sentences work well all three ways, or whether there is one punctuation mark that works best. Write the sentences out in your main lesson book.

4. Write in your journal several days this week. For two of your journal entries, reflect on your learning so far this year by answering the following questions. Do half of the questions one day, and the other half on another day.
 - How is the reading going for you so far? Are you reading independently or with a parent? If you are reading with a parent, are you making time to practice reading on your own?
 - How do you like the books assigned so far? Which one did you like better? Why?
 - Do you feel that you have a solid understanding of the four parts of speech you've covered so far? Which ones do you still need to practice?
 - Which subjects (language arts, social studies, science, math, art, or music) have you enjoyed most? Why? Which subjects have you enjoyed the least? Why?
 - Are you satisfied with your penmanship? If not, how do you think you could improve it?
 - How is the spelling going? What have been some of your hardest words?

Periodically throughout the year we will ask your child to reflect on how their learning is going. Self-reflection is an important part of the learning process, but it is not easy for

fourth graders. You may find that you have to help your child come up with some ideas before they sit down to write. Encourage your child to be as specific as possible.

Social Studies

Assignments

1. Using clay or beeswax, make models of the local animals. Paint them (if necessary) and put them in appropriate places in your model landscape. If any of your animals are house or nest builders, you might also like to make models of their homes and put them in your landscape as well.

Look to see that your student's beeswax models include specific details based on research.

2. Make a new drawing of your tree in your main lesson book. This drawing should contain the tree's surrounding habitat, including the plant and animal species you have been researching these last few weeks. Include as many details as you can. You might want to label the different plants and animals in your drawing.
3. Go back to your list of "Events My Tree Has Seen" from the very first lesson. Take some time to think about some of the natural events your tree has seen over the years, based on the local plants and animals. Has your tree seen robin eggs hatch? Has your tree seen a young maple tree grow into a mature one? Has your tree seen rabbits burrowing into the ground? Add five to ten new items to this list based on the information you have learned about your area in the last few weeks.

If your child has a difficult time coming up with natural events that the tree has witnessed, make it clear that these events can be imagined. Your child does not have to be certain that they actually occurred. Encourage your student to make educated guesses about what natural events take place on a regular basis in the area.

Science

Assignments

1. This week, you will set up several seed sprouting experiments. For these investigations, gather the following materials (you only need a few kernels of each type of plant):
 - raw, whole peanuts, shelled
 - lentils
 - brown rice
 - alfalfa seeds
 - dried beans of any kind
 - raw, whole sunflower seeds, hulled

- whole wheat (wheat berries)
- popcorn
- polished white rice
- two small dishes
- cotton or facial tissue
- 1-quart glass jar (or four small jars)
- soil to fill jar(s) three-quarters full

Note: If you cannot find all of the seeds listed, it is fine to substitute with seeds that you have available. (A substitution for the polished rice would have to be another seed that has been degerminated.)

2. First take a raw whole peanut, remove the skin, and then gently break the nut in half along its natural division in the middle. Examine it both with your naked eye and with 5x and 10x magnification. Draw what you observe in your science main lesson book. As with your geometry in nature drawings, make this a work of art. Draw it much larger than life-size so you can easily show the details.

What was hidden inside the peanut? That which was hidden is the future of the peanut waiting to be released. When the conditions are right, it will grow.

Now closely examine the other seeds you've collected: lentils, brown rice, alfalfa seeds, beans, sunflower seeds, wheat berries, and popcorn. Can you find where its future plant is hidden? That point of life is often called the *germ* of the seed. When it awakens and begins to sprout, we say that the seed is *germinating*.

No matter how small the seed, each one contains its built-in plan for the future. The plant that will grow from the seed also contains the plans for creating more seeds. In addition to this future plan, each seed contains food for the future plant, along with a protective covering.

3. Place a layer of cotton or tissue in a dish. Dampen it with water. Put two peanuts, two lentils, two brown rice grains, and a few alfalfa seeds on the wet cotton or tissue, with space between them. Cover them with another layer of damp tissue and put them on a shelf or in some other out-of-the-way, but warm spot.

What do you think will happen? Remember how part of science is guessing what will happen based on your observations? Try to be as specific as you can when making predictions. How long do you think it will take for any changes to occur? What will the changes look like? How much growth will there be, if any? Make sure to write down all of your predictions in your science main lesson book.

An important part of scientific inquiry is the ability to follow procedures carefully. Check that your student sets up the experiment accurately.

When making predictions, the student should base them on what they already know as well as what they observed while setting up the experiment. Encourage specific language and correct terminology. For instance, if your student writes, “I think all the seeds will grow,” you might suggest using specific details, such as, “I think the largest seeds (the peanuts) will grow the most” or “I think the smallest seeds (the alfalfa seeds) will take the longest to germinate and will show the least amount of growth.”

4. In another dish, place the grains of polished white rice in a similar manner. Polished rice is rice that has had its outer protective covering (bran) and the germ removed. What do you think will happen to these grains? Write your answer in your science main lesson book and add some drawings of what your experiment looks like now that you have it all set up.
5. Finally, place damp soil in your glass jar(s). Plant two beans, two sunflower seeds, two wheat berries, and two kernels of popcorn in the jar next to the edge so you can observe them through the glass as they sprout under the soil. Plant the beans at a depth of $1\frac{1}{2}$ to 2 inches, the sunflowers and popcorn at 1 to $1\frac{1}{2}$ inches, and the wheat at $\frac{1}{2}$ to 1 inch. Keep the soil slightly damp, but not soggy.



Grade

4

Lesson 17

ASSIGNMENT SUMMARY

LANGUAGE ARTS

- ☐ Learn new spelling words and take a spelling quiz.
- ☐ Write in your journal.
- ☐ Practice identifying subjects and predicates.

SOCIAL STUDIES

- ☐ Complete research about your state.
- ☐ Find a way to share your knowledge.

SCIENCE

- ☐ Read animal stories.
- ☐ Choose a project related to animals.
- ☐ Research the ways in which dogs help humans.

ART

- ☐ Draw a detailed picture using the laws of perspective.

MUSIC

- ☐ Begin planning another music recital.

Language Arts

Reading

Continue reading a book of your choice.

Assignments

1. Choose five to ten spelling words to learn this week. Practice your words using a variety of approaches.
2. Write in your journal three times this week. Here's a fun idea: write a "What if?" story. A "What if?" story allows you to invent a world that is different from the one we live in. For instance, if you asked the question, "What if I could fly?" your story would take place in a world where you could fly. Or you could ask, "What if we could speak to animals?" Or, "What if electricity had never been discovered?" See if you can come up with your own "What if?" question and then answer it in the form of a short story. You might want to keep a list of "What if?" ideas in your journal for future writing inspiration.

3. To practice identifying subjects and predicates, ask a parent to write out five to ten simple sentences. Try to divide them into subject and predicate. Start with easy ones, but ask for them to get harder as you get better at it. Circle or color lightly over the **subject** with blue colored pencils, and over the **predicate** with red pencils.

It is important to remember that all sentences are composed of two parts, a noun and a verb. In complex sentences, these two are known as *subject* and *predicate*, but the noun and the verb are the backbone of the sentence. The subject includes the noun and all the words related to the noun. The predicate includes the verbs and all the words related to the verb.

When writing sentences for your student to use for identifying subjects and predicates, keep them simple but include adjectives (which are part of the subject) and adverbs (which belong to the predicate) to make them interesting.

Social Studies

Assignments

1. Complete the work that was begun last week on the natural wonders and landforms of your state (refer to the previous lesson for details).
2. You are now an expert on your state and its natural history! Try to find a way to share your knowledge with others. If you created a poster, consider finding a public place to display it. Maybe you could display it at your local library or in the town hall. If you wrote about your state, maybe you could teach a sibling, friends, or relatives about some of the things you've learned. You might offer to give a talk to students in your homeschool group.

These ideas are optional but encouraged. Learning how to share information is an important part of your education.

Science

Reading

Read "Bonny's Big Day" and "The Market Square Dog" from *James Herriot's Treasury for Children*.

Assignments

1. Choose **one** of these projects to complete:
 - a. See if you can learn more about the different breeds of horses. What is considered to be the best show horse? The best breed for farm work? The best breed for working with cattle? Record your discoveries in the science main lesson book.
 - b. If you have a dog, try to teach the dog a new trick. You might need to borrow a book from the library to learn how. If you do not have access to a dog, you could read about a breed of dog that interests you and do a brief report, and illustrate it.

2. Research and learn about some of the ways that dogs help humans (service dogs for disabled people, rescue dogs, police dogs, therapy dogs, etc.). Write a one page paper on your findings.

Science reports are a another great place to focus on your child's use of details in writing. Read over your child's reports together and discuss the use of supporting details. Ask questions to help your student identify areas of the report that might need additional support or information. Remind your student to write as if the person reading the report didn't know anything about the topic. If you find adequate details are not being used, it can become a focus for the second semester.



Grade

4

Lesson 23

ASSIGNMENT SUMMARY

LANGUAGE ARTS

- ☐ Learn new spelling words and take a spelling quiz.
- ☐ Complete a learning reflection.
- ☐ Practice forming possessives, plural nouns, and contractions.
- ☐ Write sentences using singular and plural possessive nouns.
- ☐ Make corrections to a faulty paragraph.

SOCIAL STUDIES

- ☐ Begin researching early settlers in your region.
- ☐ Complete a colonial craft project.

SCIENCE

- ☐ Continue reading *My Side of the Mountain*.
- ☐ Listen to and learn to distinguish different birdcalls.
- ☐ Use nature signs during a nature walk.

ART

- ☐ Draw a scene from a story using the laws of perspective.

MUSIC

- ☐ Continue practicing your musical instrument.

Language Arts

Assignments

1. Create a new spelling list that includes singular and plural nouns. Focus on the ones that you find the most difficult to spell.
2. For the next two weeks you will use your journal writing time to complete another learning reflection. Read through the list of questions below. Take your time formulating your answers. You will answer half of the questions this week, and half next week.

Before you begin, look over your learning reflections from lesson 12. It is important that these reflections build on your previous thoughts.

Learning Reflection Questions:

- a. Make a list of the following items in your journal.
 - The title of a favorite poem that you wrote.
 - The topic of two of your favorite journal entries this year.
 - The most challenging grammar topic so far.
 - The most challenging punctuation rule so far.
 - Your favorite social studies project so far this year.
 - Your least favorite social studies project this year.
 - The most difficult science project you've done this year.
 - The most enjoyable science project you've done this year.
- b. How are you doing on the reading goals that you set in lesson 12? Have you met either goal? If not, what will you need to do in order to meet them by the end of the year?
- c. Have you been surprised by anything you've learned about your state this year? What? What are some of the most important things you think other people should know about your state?
- d. What advice would you give to a new fourth grader sitting down to do their first research project? Come up with one piece of advice for each stage of the research process: research, note-taking and organizing, outlining, writing, and revising/editing.
- e. Have any of the lessons you learned about nutrition stuck with you? Do you eat any differently now than you did at the beginning of the year? Do you think about eating any differently? Explain.
- f. Make a list of your five greatest strengths as a student. For example, do you love to read? Do you proofread your work carefully? Are you a confident writer? Do you love learning about grammar? Is long division easy for you?
- g. Make a list of five things you would like to improve on as a student. For example, do you wish you could read more quickly? Do you have a difficult time staying organized? Do fractions confuse you? Is spelling hard for you? At the end of the year, you will be asked to revisit this list, so make sure you write out your thoughts clearly so that you understand them when you look back on them.

As with past learning reflections, take some time to discuss the questions with your child before they sit down to write. Push your student to think carefully about the questions. If you think it will help, take notes during your discussion so that your child can refer back to them when writing a response.

Remember, this is also a good time for you to take stock of how the year is going for you. Are there any changes you'd like to make that will foster greater independence in your student or help your day or week move more smoothly?

3. Practice differentiating between possessives, plural nouns, and contractions. For each sentence below, indicate which type of word is in bold:
 - a. My **aunt's** arriving today. **contraction**
 - b. My **aunt's** car is new. **possessive noun**
 - c. She bought the car from the **neighbors**. **plural noun**
 - d. Do you think **she's** going to visit at **their** house? **contraction (she's)/possessive noun (their)**
 - e. **It's** not clear yet. **contraction**
 - f. **There's** a good reason to go. **contraction**
 - g. The **neighbors'** house was just painted. **plural and possessive noun**
 - h. The car in the driveway is **theirs**. **possessive noun**
 - i. My car is having **its** tires checked this morning. **possessive noun**
 - j. Is there **anybody's** car you can borrow? **possessive noun**
 - k. **Someone's** coming to pick us up. **contraction**
4. Complete the activities for practicing singular and plural possessive nouns:
 - Compose several sentences using singular possessive nouns.
Example sentence: The kitten's dish is blue.
 - Compose several sentences using plural possessive nouns.
Example sentence: The cats' meows let me know they were hungry.
5. Ask a parent to write a short paragraph that uses contractions and possessive nouns incorrectly. Go through and correct the sentences yourself.

Contractions, plurals, and possessives can be confusing and take some time to fully understand. Make your paragraph fairly simple. You may need to underline the mistakes for your student to correct if they have trouble identifying them.

As you read together, point out examples of each type of noun in the story. Be sure to let your child know that you understand how similar these words seem, and that your student is working on mastering one of the most important grammar rules needed to be a good writer in the future!

Social Studies

Assignments

1. Spend the week doing research and getting a sense of what the early history in your state was like. This will build on the research you did in lessons 19 and 20 about early explorers. Look ahead to the questions you'll be answering in the next lesson and use them as a guide to help you with your reading. Make sure you take notes on each question and keep your notes well organized.

Students who live outside the United States are encouraged to “adopt” a state to learn about.

2. Complete at least one project from the colonial crafts section in the appendix.

The activities from the last few lessons have been very language-based. Use this week's craft to take a break from reading and writing and to have fun making something.

Science

Reading

Continue reading *My Side of the Mountain*.

Assignments

1. Go outside and listen to the birds in your neighborhood for half an hour. How many different birdcalls do you hear? Can you identify any of these birdcalls? Try to learn a few of them.
2. Go to the woods with a parent and see if you can find your way around using “signs.” You can do this in woods near your house, in a state park, or in a natural area nearby (such as a meadow or river). If you live in an urban area and there are no woods nearby, you can simulate this process in your own neighborhood by creating special signs. Perhaps you can find a new area to explore in this way!

Write a few sentences in your main lesson book describing your experience. List the signs you discovered and interpreted.

You and your child can experiment by using chalk on tree trunks, or making a mark using a piece of chalky rock. Another idea is to put stick “markers” on the path pointing the way you are going or make rock stacks showing your direction at each fork in the path. Perhaps your child has another idea to explore as well.