

Unit 4: Stories from the Sky

Grade 1



Overview

Long ago, First Peoples had an understanding of celestial objects that allowed them to make decisions crucial to sustainability. Through storytelling, the people were able to explain that which might otherwise not be understood. The metaphysical existence of the sun, moon and stars was important and relevant to the people in ways that science today portrays on a different level.

Long before modern day science and technology, First Peoples relied on celestial objects in many facets of life. These lessons will help students understand the importance of the sun, moon and stars to First Peoples long ago and today.

Note: some of the activities in this unit include the use of websites for student content. If you are unable to facilitate student internet use (e.g., using a smartboard or computer lab), the activities can be modified by using the other resources cited, or by providing selected internet content in handout form.

Key Big Ideas

	Grade 1
English Language Arts	<ul style="list-style-type: none">• Stories and other texts help us learn about ourselves and our families.• Stories and other texts can be shared through pictures and words.• Through listening and speaking, we connect with others and share our world.
Science	<ul style="list-style-type: none">• Observable patterns and cycles occur in the local sky and landscape.
Arts Education	<ul style="list-style-type: none">• Dance, drama, music, and visual arts express meaning in unique ways.

Key Curricular Competencies

	Grade 1
English Language Arts	<ul style="list-style-type: none">• Use developmentally appropriate reading, listening, and viewing strategies to make meaning• Recognize the structure and elements of story• Show awareness of how story in First Peoples cultures connects people to family and community• Identify, organize, and present ideas in a variety of forms• Explore oral storytelling processes
Science	<ul style="list-style-type: none">• Make and record observations• Recognize First Peoples stories (including oral and written narratives), songs, and art, as ways to share knowledge• Sort and classify data and information using drawings, pictographs, and provided tables• Identify simple patterns and connections• Communicate observations and ideas using oral or written language, drawing, or role-play

Grade 1	
Arts Education	<ul style="list-style-type: none">• Explore elements, processes, materials, movements, technologies, tools, and techniques of the arts• Create artistic works collaboratively and as an individual, using ideas inspired by imagination, inquiry, experimentation, and purposeful play

Learning Goals

- Develop the habits of mind associated with science – a sustained curiosity; a valuing of questions; an openness to new ideas and consideration of alternatives; a seeking of patterns, connections, and understanding; and a consideration of social, ethical, and environmental implications.
- Develop place-based knowledge of the natural world and experience the local area in which they live by accessing and building on existing understandings, including those of First Peoples.

Learning Outcomes

- Students will have a deeper understanding of First Peoples’ knowledge and teachings of the solar system.
- Students will have a deeper understanding of the importance of the solar system in the lives of many First People.
- Students will communicate their ideas and understanding of First Peoples’ knowledge and teachings of the solar system through speaking, writing, and creating art.

Themes Addressed

- seasonal cycle, seasonal activities
- sustainability & continuity
- relationship to the natural world
- relationality & connectedness
- language
- worldview
- beliefs
- art
- symbols and symbolism
- tradition and modernity

Lesson Plans in this Unit

- Introduction to Celestial Objects (Science, English Language Art, Arts Education)
- Stars (Science, English Language Art, Arts Education)
- Aurora Borealis (Arts Education)
- 13 Moons (Science, English Language Arts)

Assessment

Assessment tool provided at the end of this unit include:

- Celestial Stories
- Aurora Borealis Artwork
- Relating to the 13 Moons

Authentic Texts

- The Adventures of Txamsm Series: *Txamsm Brings Light to the World* by Mildred Wilson
- *How Raven Stole the Sun* by Maria Williams
- *Raven Tales: How Raven Stole the Sun* (film) (this story is also available in graphic novel form)
- “Why Coyote Howls: A Star Story” – oral story, as retold by Lynn Moroney (www.lpi.usra.edu/education/skytellers/constellations/preview/)
- “Oot-Kwah-Tah, The Seven Star Dancers,” from *Keepers of the Night* by Michael J. Caduto and Joseph Bruchac
- *The Thirteen Moons on Turtle’s Back* by Jonathan London and Joseph Bruchac
- Anishinaabemdaa: Thirteen Moons (www.anishinaabemdaa.com/#/storybook/13_moons)
- 13 Moons of the Wsanec (www.racerocks.ca/the-13-moons-of-the-wsanec/)
- 13 Moons of the Secwepemc – Connecting Traditions – Secwepemc Pre-Contact Village Life (secwepemc.sd73.bc.ca/sec_village/sec_villfs.html)
- local stories depicting knowledge of the moons – consult with your district Indigenous contact for support in finding these resources



Suggested and Assessment Approach

Introduction to Celestial Objects

Science, English Language Arts, and Arts Education – two 50-minute lessons

Materials and Resources

- The Adventures of Txamsm Series: *Txamsm Brings Light to the World* by Mildred Wilson
- *How Raven Stole the Sun* by Maria Williams
- *Raven Tales: How Raven Stole the Sun* (film)

Procedure

Ask students why they think the sun is important to humans; record students’ comments on the board. Ask students if they think the sun is just as important to humans today as it was to humans thousands of years ago? Share with students that it is for many of these same reasons that the sun was and still is important to Indigenous people. Tell the students they will hear two stories about the sun and what Raven did to make sure the people had the sun. One of these stories is from the Tsimshian peoples and the other is from the Tlingit.

Share with students that for thousands of years Indigenous people shared the oral traditions and stories, and that some of these stories and teachings allowed the people to put some kind of understanding to the space beyond Earth’s surface. These stories also allowed the people to pass on their understanding of the world, as well as other knowledge and wisdom to the younger generations.

Lesson One – Science, English Language Arts

Explain that this lesson and the next will look at variations of a popular First Peoples traditional story, that of “Raven Stealing the Light.” This story appears in different forms in many North American First Peoples’ cultures.

Introduce and read *Txamsm Brings Light to the World*. While reading the story, draw students’ attentions to the clothing the characters are wearing, as well as the animals that are native to the region. Have students share their thoughts on the story. Record their comments on the board.

Introduce and read *How Raven Stole the Sun*. Have students share their thoughts on the story. Record their comments on the board. Ask students to generate text to text connections. Record their connections on the board. Ask students to generate differences they noticed between the texts. Record their comments on the board.

On a blank sheet of paper, have students draw and write about one text to text connection or one difference between the two books. Writing can be labeling their drawing, writing sentences about their drawing, or both.

Lesson Two – Science, English Language Arts

View the Raven Tales film: *How Raven Stole the Sun*. After watching the film, have students get their drawing and writing out from the last Raven activity to record another connection (similarity) or difference to the previous stories.

Ask students to generate connections between the books and the film. Record their connections on the board. Ask students to generate differences they noticed between the books and the film. Record their comments on the board.

On a blank sheet of paper, have students draw and write about one book to film connection or one difference between one of the books and the film. Writing can be labeling their drawing, writing sentences about their drawing, or both.

Once students have finished their writing and drawing from today they can choose their favourite work they did from either of the two lessons and show and share it with the class. Students can show and share their work by having the class sit in a circle. Each student takes a turn to speak and show their creations.

Stars

Materials and Resources

- “Why Coyote Howls: A Star Story” as retold by Lynn Moroney – oral story available online at www.lpi.usra.edu/education/skytellers/constellations/preview/

Note: share only the audiorecording of the oral story with students and not the full webpage, as the heading and description on the page uses the word “myth.” This word should be avoided when sharing traditional stories with students because of its connotation that the story is fictional. For more information, see *Story, Legend, and Myth* on page 11.

Lesson One – Science, English Language Arts

Ask students why they think stars are an important part of our night sky. Record their comments on the board. Ask students how they think the stars came to be in the sky. Record their comments on the board. Share with students that First Peoples of the past had different stories to help explain possible ways things such as the stars came to be. Tell the students they will be hearing a story today “*Why Coyote Howls: A Star Story*,” as told by Lynn Moroney (Chickasaw). Tell the class that Moroney’s version of this story is a blend of tales found in several North American First Peoples oral traditions.

Share with students that for thousands of years First Peoples shared oral traditions and stories, and that some of these stories and teachings allowed the people to put some understanding to space beyond Earth’s surface. These stories also allowed the people to pass on their understandings of the world, as well as other knowledge and wisdom to the younger generations.

Ask students to close their eyes and to use their imaginations as they listen to this story. Encourage students to visualize by creating a picture in their minds of what this story might look like as they listen to it.

After listening to the story have students get into partners. With their partner they quickly decide which one of them is partner A and which one of them is partner B. Partner A has two minutes to retell the story to partner B. After the two minutes the B partners stand up and share with the class the retell they heard their A partner tell them. Record their comments on the board. Then they switch and A partners listen to B partners and report out on what they heard. Record their comments on the board. Review the comments on the board as a class and identify the beginning, middle, and ending of the story.

Have students write their own story about how the stars came to be in the sky. Tell students their stories must have a beginning, middle and end to their story, along with a picture. (This writing will probably take longer than one session and could be completed later if necessary.) Alternatively, students can draw and label three pictures, one for the beginning, middle, and ending of their story.

When students have completed their stories, they may share them with the rest of the class.

Assessment

Refer to the assessment rubric, *Celestial Stories* (provided at the end of this unit).

Lesson Two – Science, Arts Education

Materials and Resources

- “Oot-Kwah-Tah, The Seven Star Dancers,” from *Keepers of the Night* by Michael J. Caduto and Joseph Bruchac

Procedure

If you have not already discussed constellations as a class, spend a few minutes talking with students about constellations and what they are. Ask students if they have heard of a few common constellations, such as the Big Dipper, Little Dipper, Cassiopeia, and Orion. Show images of constellations if you have them available.

Ask students why they think stars are an important part of our night sky. Record their comments on the board. Ask students why stars might have been important to First Peoples thousands of years ago. Record their comments on the board. Tell the students they will be hearing a story today that was told by the Onondaga (Eastern Woodland peoples) about the forming of the constellation Pleiades.

Share with students that for thousands of years First Peoples shared their oral traditions and stories, and that some of these stories and teachings allowed the people to put some kind of understanding to the space beyond Earth's surface. These stories also allowed the people to pass on their understanding of the world, as well as other knowledge and wisdom to the younger generations.

Tell students you will not be showing them pictures as you read the story. Ask students to close their eyes and to use their imaginations as they listen to the story. Encourage students to visualize by creating a picture in their minds of what this story might look like as they listen to it.

Read the story. After listening to the story have students get into partners. With their partner they quickly decide which one of them is partner A and which one of them is partner B. Partner A has two minutes to describe the images they imagined to partner B. After the two minutes the B partners stand up and share with the class what they heard their A partner tell them. Record their comments on the board. Then they switch and A partners listen to B partners and report out on what they heard. Record their comments on the board.

On blank paper have students draw a picture that tells the story and what they visualized while listening to the story. Invite them to label it or add sentences at the bottom if it helps them convey their thinking.

Aurora Borealis

Arts Education, 45 minutes

Materials and Resources

- crepe paper or tissue paper (different colours – greens, blues, reds, orange/yellow)
- bowls of water mixed with vinegar (1 Tablespoon / 15 mL vinegar to 1 cup / 250 mL water), 1 bowl per group
- paint brushes, 1 per student
- white construction paper

Background

Although science has declared the northern lights to be electrically charged particles from the sun deflected by Earth's magnetic field, First Peoples of the past had their own ideas as to what the northern lights were. As with many diverse concepts from First Peoples, the meaning and understanding of the northern lights differs.

Find out local stories and beliefs about the northern lights. Consult your local district Indigenous contact for assistance.

Procedure

Inform the students that they will be doing an art project today that will reflect images of the aurora borealis (northern lights). Share with students that different people around the world have had different ideas as to what exactly the aurora borealis are, and where they come from.

Have students work in small groups if possible as this will allow for fewer bowls of water and students can share their thoughts on their creative process.

Hand out white construction paper and pieces of crepe paper, or tissue paper. Have students spread the crepe paper, or tissue paper out on top of the white construction paper.

Once the white construction paper has been covered, put bowls of water (mixed with vinegar) and paint brushes on the tables. Have students brush the water mixture over the crepe paper, or tissue paper. Caution students not to use too much water as it will soak right through the crepe paper as well as the construction paper.

Once the papers are all wet, set them aside and let them dry. Clean up.

Once papers have dried (the next day) gently remove the crepe paper or tissue paper and see the beautiful creations.

Assessment:

Refer to the assessment rubric, Aurora Borealis Artwork, provided at the end of this unit.

13 Moons

Lesson One – Science, English Language Arts

Materials and Resources

- *The Thirteen Moons on Turtle's Back* by Jonathan London and Joseph Bruchac

Background

Long before the arrival of European settlers to North America, First Peoples had their own ways of looking at and understanding the world in which they lived. Key to sustainability for the people was having an understanding of the sky and all the information it presented to them. First Peoples did not use the typical calendar that we use today; their understanding was one with nature and could be described today

as a “solar-lunar calendar,” where 365 days is the measure of the Earth going around the sun and 28 days is the average measure of the moon's synodic (the time period between two successive astronomical conjunctions of the same celestial) and sidereal cycles.

Procedure

Read aloud *The Thirteen Moons on Turtles Back*. When finished, ask students to retell the story to a classmate. Once students have had a discussion, ask for volunteers to retell the story, and record the main ideas on the board. This can also be done in A-B partner talk as explained in previous lessons.

Ask students to draw and colour a picture of the story, and write one or two sentences underneath to explain their picture. When students have completed their work, they may share it with the rest of the class.

Tell the students they will investigate the back of the turtle in an upcoming lesson. If any students have a pet turtle at home, ask them to count the large sections on its back (shell), as well as the small sections that surround the shell and have them report back to the class their findings.

Lesson Two – English Language Arts

Materials and Resources

- Anishinaabemdaa: Thirteen Moons (www.anishinaabemdaa.com/#/storybook/13_moons)
- turtle model template (<http://sites.rootsweb.com/~mosmd/turtle.jpg>), 1 copy per student
- Thirteen Moons on a Turtle’s Back colouring template (<http://sites.rootsweb.com/~mosmd/13moons.jpg>), 1 copy per student
- scissors and glue sticks
- crayons, pencil crayons, etc.

Note: only the two templates from the rootsweb.com website are to be used; do not use the other content from this website.

Preparation

Find local resources (e.g., stories, Elders or knowledge-keepers) for local knowledge about the moon. Consult with your district Indigenous contact for support in finding these resources.

Procedure

Remind students of the story *The Thirteen Moons on Turtle’s Back* from the previous lesson. Ask students if anyone has ever had the opportunity to check the back of a turtle to see if it did indeed have thirteen large sections and twenty eight smaller sections. Let students know that today we will look at a website that has illustrations and information on the thirteen moons.

Access and project the story from the Anishinaabemdaa Thirteen Moons website, (www.anishinaabemdaa.com/#/storybook/13_moons) on your classroom computer

and projector. Read the information aloud to the class. Explain that this version of the Thirteen Moons story comes from the Anishinaabe peoples of the plains and Great Lakes region of Canada and the United States, and that this information may be different from what is understood by First Peoples locally.

Share local stories and knowledge about the moons, and discuss: What is the same? What is different? The purpose of this activity is to develop an understanding that although First Peoples differ from one another, there are many aspects of their lives that are similar.

Ask students if they see a pattern (similarity) between the moons of the First Peoples, and the pattern on the back of the turtle. Hand out copies of the turtle model template. Students will complete this activity following the verbal instruction you give, as well as the written instruction on the handout. Distribute the Thirteen Moons colouring template as well – early finishers can colour the turtle with the thirteen moons and twenty-eight segments on its back.

While students are quietly colouring, you can re-read aloud the Jonathan London and Joseph Bruchac story of *The Thirteen Moons on Turtle’s Back*.

Inform students that during our next lesson we will be learning about some of the activities First Peoples did during the various “moons” of the year. Students should come prepared to compare what they and their families do during the various “months” of the year.

Lesson Three – Science, English Language Arts

Materials and Resources

Stories and calendars representing the 13 moons concept, one or more of the following:

- resources from the local First Peoples
- Gitxsan Moons (handout provided at the end of this unit)
- 13 Moons of the Secwepemc (Connecting Traditions – Secwepemc Pre-Contact Village Life)
secwepemc.sd73.bc.ca/sec_village/sec_villfs.html
- The 13 Moons of the Wsanec (Saanich people)
<https://www.racerocks.ca/the-13-moons-of-the-wsanec/>
- Anishinaabemdaa – 13 Moons
www.anishinaabemdaa.com/#/storybook/13_moons.htm
- Oneida – 13 Moons Turtle Island
oneidalanguage.ca/wp-content/uploads/2012/06/13-moons-on-turtles-back.pdf

Preparation

Preview the various 13 Moons resources available (see preceding list), and determine which you will use with your class. Ideally, local resources will be used, but if these are not available any of the others will work as alternatives.

Procedure

Remind students of the story “The Thirteen Moons on Turtle’s Back,” and let them know that today we will be dividing those moons up into seasons. Ask students to

think about some of the things they, and their families, do during the different seasons. On the board, write the names of the season (winter, spring, summer, fall), and under each heading make a list of things the students identify. Be sure to include things that adults must do to be prepared for the upcoming seasons. For example:

- In late fall we prepare for winter by cleaning up the yard, getting winter tires put on our vehicles.
- In spring we bring out our bikes and check that they're in working order.

Facilitate access of the relevant resource(s) for the 13 Moons. For the resource chosen, have students begin by investigating which “moon” they were born under. Ask students what they usually do at that time of year.

Then have students look at the remaining moons, and the seasonal activities that take place in each. Check out some of the months where certain holidays take place – such as Remembrance Day, Halloween, Christmas, Diwali – and investigate what the First Peoples used to do and/or currently do during those months (moons).

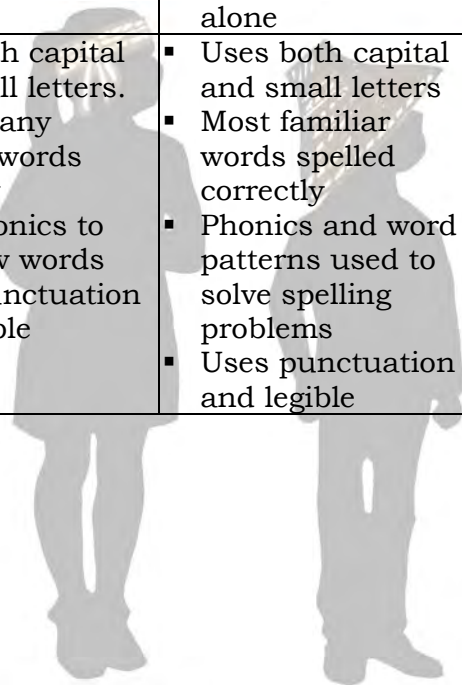
When the resources have been investigated, have students look at the lists on the board (that you recorded during the introduction) and draw a picture that demonstrates what it is they, or their family, do during a particular moon or month.

Assessment

Assess students' work according to criteria such as those outlined in the assessment tool, Relating to the 13 Moons (provided at the end of this unit).

Celestial Stories

1-Emerging	2-Developing	3-Proficient	4-Extending
<ul style="list-style-type: none"> ▪ May be able to “read” own writing, but meaning often changes each time 	<ul style="list-style-type: none"> ▪ Often retells another story ▪ Recognizable story situation ▪ Little development and few details 	<ul style="list-style-type: none"> ▪ Some individuality ▪ Begins with characters and situation ▪ Had a problem and solution; few details 	<ul style="list-style-type: none"> ▪ Some individuality ▪ Begins with characters and situation ▪ Has a problem and related solution ▪ Includes a variety of details that add to the story
<ul style="list-style-type: none"> ▪ Simple words used ▪ When “reading” or dictating, may be one long sentence or a series of short stilted sentences 	<ul style="list-style-type: none"> ▪ The style is conversational ▪ Repeats simple patterns and favourite words 	<ul style="list-style-type: none"> ▪ Style is mostly conversational; may include some “story language” ▪ Some simple description is used and repeats simple patterns 	<ul style="list-style-type: none"> ▪ Uses descriptive language and attempts dialogue description ▪ Takes risks to use new words or patterns
<ul style="list-style-type: none"> ▪ Usually a drawing with a string of letters or one or two dictated sentences 	<ul style="list-style-type: none"> ▪ May be very brief. ▪ String of loosely related events—mostly “middle” ▪ Uses <i>and</i> to connect ideas ▪ Drawing may tell much of the story 	<ul style="list-style-type: none"> ▪ Includes beginning, middle, and end ▪ Most events are in logical sequence ▪ Repeats the same connecting words ▪ Writing can stand alone 	<ul style="list-style-type: none"> ▪ Includes beginning, middle, and end ▪ Events are in logical sequence ▪ Uses a variety of connecting words ▪ Writing can stand alone
<ul style="list-style-type: none"> ▪ Strings of capital letters ▪ May show correct initial consonant ▪ Not yet able to use phonics and no punctuation ▪ May be copied or dictated to another person 	<ul style="list-style-type: none"> ▪ Mostly capital letters and some words spelled conventionally ▪ Many words spelled phonetically and may experiment with punctuation ▪ Parts are legible 	<ul style="list-style-type: none"> ▪ Uses both capital and small letters. ▪ Spells many familiar words correctly ▪ Uses phonics to spell new words ▪ Some punctuation and legible 	<ul style="list-style-type: none"> ▪ Uses both capital and small letters ▪ Most familiar words spelled correctly ▪ Phonics and word patterns used to solve spelling problems ▪ Uses punctuation and legible



Aurora Borealis Artwork

1	2	3	4
Elements of Design			
Student needed support in adding elements of line, shape, and texture into their work.	Student needed some support in adding elements of line, shape, and texture into their work.	Student used elements of line, shape, and texture into their work with little support.	Student used elements of line, shape, and texture into their work with no support.
Use of Materials			
Student needed a lot of reminders on proper use of materials.	Student used materials appropriately with some reminders.	Student used materials appropriately with little reminders.	Student used materials appropriately with no reminders.
Creativity			
Student needed support in thinking of ideas.	Student needed some support in thinking of ideas.	Student used their own ideas and imagination most of the time.	Student used their own ideas and imagination.



Gitxsan Moons

As in many First Peoples cultures, the Gitxsan calendar was created by the events of the seasons.

▶ The stories and feasting moon – **January**

Rainbow ring around the moon. The ring represents the circle of stories. The stories are told and retold and customs and traditions are perfected during this quiet time of winter.

▶ The cracking cottonwood trees' and opening water trails' moon – **February**

When the cottonwood trees snap because of the bitter cold. When the false thaw comes and ice melts and canoes can be used on the rivers.

▶ The black bear's waking moon – **March**

The bears sit in front of their den in the early Spring, trying to wake up and get accustomed to the daylight and fresh air. They are safe from the hunters because they are thin after their long winter's sleep.

▶ The Spring Salmon's returning home moon – **April**

Spring salmon return to the rivers of their birth.

▶ The budding trees' and blooming flowers' moon – **May**

Trees wake up and start to come into bud, flowers are blooming. Nature is reborn.

▶ The gathering and preparing the berries moon – **June**

The season begins for berry picking and preserving for the long winter months ahead.

▶ The fisherman's moon – **July**

Season of moving to the fish camps to preserve salmon for the winter months.

▶ The grizzly bear's moon – **August**

The grizzly bears are fishing and eating spawning salmon, fattening up for the long winter months ahead.

▶ The groundhog hunting moon – **September**

Gitxsan go to the mountains for the groundhogs. The groundhogs are easy to hunt. They are slow moving and fat from eating all summer.

▶ The catching lots of trout moon – **October**

The Gitksan are finished with all the preparations for winter and take time to go trout fishing. Trout fishing signifies the completion and celebration of the summer work. The trout are plentiful, hungry and easy to catch.

▶ The getting used to cold moon – **November**

A time of cold, but some warm days too.

▶ The severe snowstorms and sharp cold moon – **December**

A time of extreme cold. Winter has no compassion.

▶ The Shaman's moon

The blue moon, or the 13th moon. The most powerful moon, not named. The Shaman uses this moon to cleanse and practice good luck. Fasting, praying, sleeping alone in the four directions around the fire and gathering at the sweat lodge daily. A powerful moon for the dreamtime.

Relating to the 13 Moons

1 – Emerging	2 - Developing	3 - Acquired	4 - Accomplished
Following Project Directions			
Work does not demonstrate what they, or their family, do during a particular moon or month.	Work somewhat demonstrates what they, or their family, do during a particular moon or month.	Works mostly demonstrates what they, or their family, do during a particular moon or month.	Work demonstrates what they, or their family, do during a particular moon or month.
Elements of Design (line, shape, and colour)			
Student needed support in adding elements of line, shape, and colour into their work.	Student needed some support in adding elements of line, shape, and colour into their work.	Student used elements of line, shape, and colour into their work with little support.	Student used elements of line, shape, and colour into their work with no support.
Creativity			
Student needed support in thinking of ideas.	Student needed some support in thinking of ideas.	Student used their own ideas and imagination most of the time.	Student used their own ideas and imagination.

