

When Water Lost Her Way

Lesson Plan Foundation – Year 2 Exploring the Water Cycle

Contents

Learning Objective	1
Lesson Summary	2
Lesson Plan.....	3
Exploration Activities	4
Activity Hand Out	6
External Resources on the Water Cycle:.....	8

Learning Objective

Understand the different ways water looks in the sky and landscape and how it can change and affect our life. Elaborate on water cycle learnings with understanding where the water stores are on earth and the challenges we face in managing our water supplies sustainably (Year 2).

Curriculum Links

Year	Australian Curriculum/ Victorian Curriculum Science Understanding		Australian Curriculum/ Victorian Curriculum Science Inquiry Skills	
Foundation	Daily and seasonal changes in our environment affect everyday life ACSSU004/VCSSU046		Pose and respond to questions about familiar objects and events AC SIS014/ VCSIS050	Participate in guided investigations and make observations using the senses AC SIS011/ VCSIS051
Year 1	Observable changes occur in the sky and landscape ACSSU019/ VCSSU046	Everyday materials can be physically changed in a variety of ways ACSSU018 /VCSSU045	Pose and respond to questions, and make predictions about familiar objects and events AC SIS024/ VCSIS050	Participate in guided investigations to explore and answer questions AC SIS025/ VCSIS051
Year 2	Observable changes occur in the sky and landscape VCSSU046	Earth’s resources are used in a variety of ways ACSSU032 / VCSSU047	Pose and respond to questions, and make predictions about familiar objects and events AC SIS024/ VCSIS050	Participate in guided investigations to explore and answer questions AC SIS038/ VCSIS051

When Water Lost Her Way

Lesson Plan Foundation – Year 2 Exploring the Water Cycle

Lesson Summary

Gather what the class know about the water cycle and then collectively read the story *When Water Lost Her Way*. Select one or two illustrations from the story that the class finds most interesting. Use the thinking routine (see-think-wonder) to explore the image using the senses- what water would feel, taste, smell like from the image/s? Follow up with investigating what the class is 'wondering' about or use one of the activities for further exploration. Look at the last page of the book (where is all the water on earth) and discuss why fresh water is a precious resource and why it needs to be managed sustainably (year 2).

Cross Curriculum Links- Australian Curriculum

Critical & Creative Thinking	Identifying, exploring & organising information & ideas. Reflecting on thinking & processes
Literacy	Comprehending texts through listening, reading and viewing (Foundation); composing texts through speaking, writing and creating, understand learning area vocabulary
Numeracy	Recognising and using patterns and relationships - Recognise and use patterns and relationships
Sustainability (year 2)	Considering what might happen to humans if there were a change in a familiar available resource, such as water

When Water Lost Her Way

Lesson Plan Foundation – Year 2

Exploring the Water Cycle

Lesson Plan

(Engage, Question, Predict) Gather knowledge from the room

What are the different ways water can look in the landscape?
What happens when you have too much rain or not enough rain?
What do you think this story will be about? (Clues: Illustrations, title, etc.)



Collate all the information from the room on a white board

Read the story *When Water Lost Her Way*

Discuss what everyone thought of the story

SEE:

Select one or two images to focus on based on interest from the class. Allow sufficient time for everyone to really look at the image.

What do you see in the illustration/picture?
What stands out in the image to you?



THINK:

What do you think the image is about?
Optional suggested questions to stimulate conversation are below

What is the image trying to show?
What are the different names for water in the image/s? (see activity sheet)
How do you think these forms of water would feel, look, smell and taste like?



WONDER:

What makes you wonder about the image and water or the water cycle?
A summary of some optional further explorative activities are provided below

Explore the water cycle outdoors <i>Refer page 4</i>	Explore properties of water using the senses <i>Refer page 4</i>	Make your own water cycle with art or song <i>Refer page 5</i>	Water quality and water management (Yr.2) <i>Refer page 5</i>
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REFLECT/COMMUNICATE:

Some suggested summary questions for the class/group are provided below

What did you learn about water and the water cycle?
What are you wondering about after looking at the image/s or from the story?

When Water Lost Her Way

Lesson Plan Foundation – Year 2

Exploring the Water Cycle

Exploration Activities

Explore the water cycle outside		
Time 20 minutes	Materials 1 bucket or bottle of water	<ul style="list-style-type: none">• Go outside look at the clouds, the ground, plants and trees- what do you observe about water in these places?• Is the grass green or yellow/brown- what does this mean? Is the grass yellow but trees are still green – how could this be? <i>(tree roots tap down deeper under the earth drawing from groundwater whereas soils and grasses with shallow root depths can only access water in the soil profile)</i>• What time of year is it? (summer, winter, autumn, spring) and how does this change the landscape around us?• Pour water on the ground. What do you think will happen? Does it seep underground or flow over ground and pool? Why do you think this happens?

Explore properties of water using the senses		
Time 20 min	Materials ice cubes, plastic bucket, boiled water in a furnace or kettle, clear plastic cups or glass jars, soils- (mud/clay and sand), olive oil	<ul style="list-style-type: none">• Observe ice on liquid water – what does it do? <i>(Observe that it floats, it is cold & it is hard).</i>• Where do you see ice in the landscape and why?• Put a bit of dirt (mud then try sand) in liquid water and mix thoroughly – observe what changes- does the water look dirty? Does the fine mud mix? What happens to the sand? What are the differences?• Boiling water- although hard to see, watch in the sunlight as water vapour moves off a hot mug

For simplicity these activities describe the actions to take for further exploration. You can follow a 'predict- activity- reflect' routine or an alternative thinking routine that focuses on predicting and reflecting.

When Water Lost Her Way

Lesson Plan Foundation – Year 2

Exploring the Water Cycle

Make your own water cycle with art or song

Time 20 min	Materials paper, pencils, glue, paint, cotton wool buds, tissue paper, pipe cleaners, OR iPad or computer; Pens and paper	<ul style="list-style-type: none">• Use other resources showing the water cycle in different ways (refer external resources)• Draw, use collage or any other medium to show water in different forms in the landscape OR <ul style="list-style-type: none">• Watch the Water Cycle Rap (see external resources) and research other songs/poems about water and the water cycle• Make up your own song/poem/rap about what water means to you or what you have learnt and present to the class (develop in groups or individually)
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Water quality and water management (Year 2)

Time 20 min	Materials Computer/ monitor for the group or iPads for group work Butchers paper and coloured textas for writing observations	<ul style="list-style-type: none">• Look at the last page in the book showing how much water is stored in different places on earth• Can you work out which water stores are likely to be salty and fresh?• What does this mean for managing our water resources?• Carry out some research about where water is stored and how it gets to your tap- see some links here (USGS, FUSE water to tap program) or identify who your local water provider is and where your water comes from• What challenges of having limited fresh water supplies, particularly during periods of drought, for water management?• What ways can you save water in your home and at school?
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The layout of this lesson plan was based on 'Visible Thinking' for inquiry based learning (See-Think-Wonder), for further reading on this topic follow the link below:

http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03c_Core_routines/SeeThinkWonder/SeeThinkWonder_Routine.html

When Water Lost Her Way

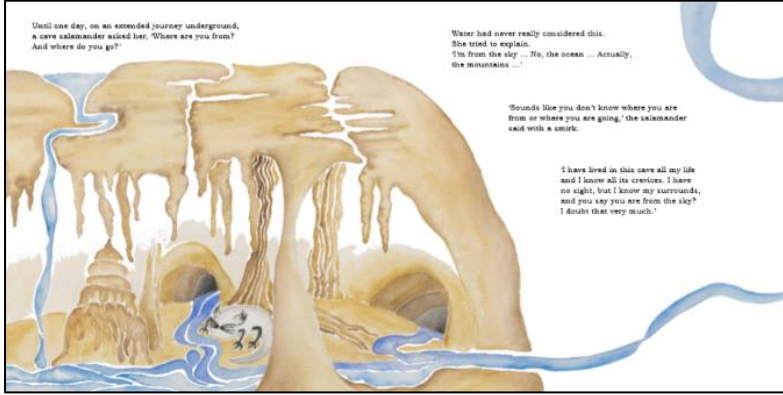
Lesson Plan Foundation – Year 2

Exploring the Water Cycle

Activity Hand Out

What are the names for water below? How do you think water would look, feel, taste and smell in these places?

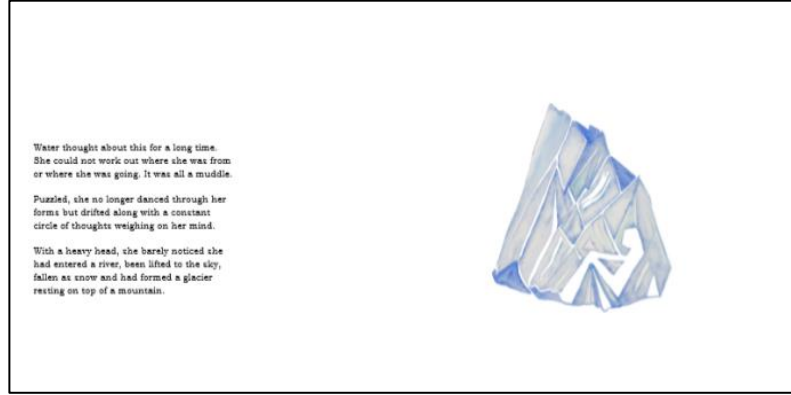
Choose one or two of these images and answer- "I see..."; "I think..." and "I wonder..."



I see _____

I think _____

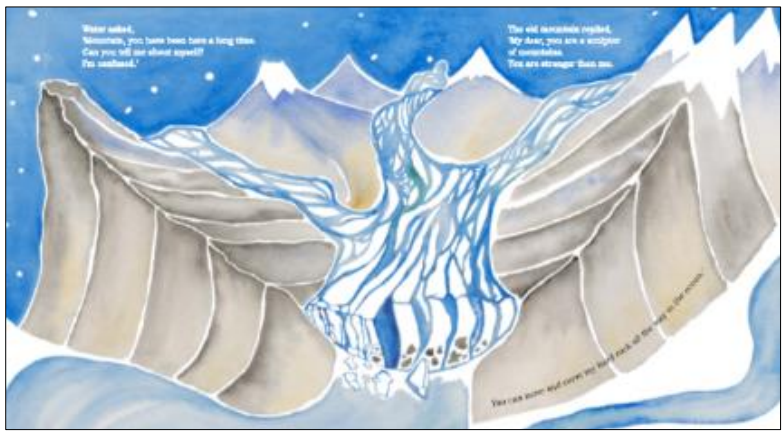
I wonder _____



I see _____

I think _____

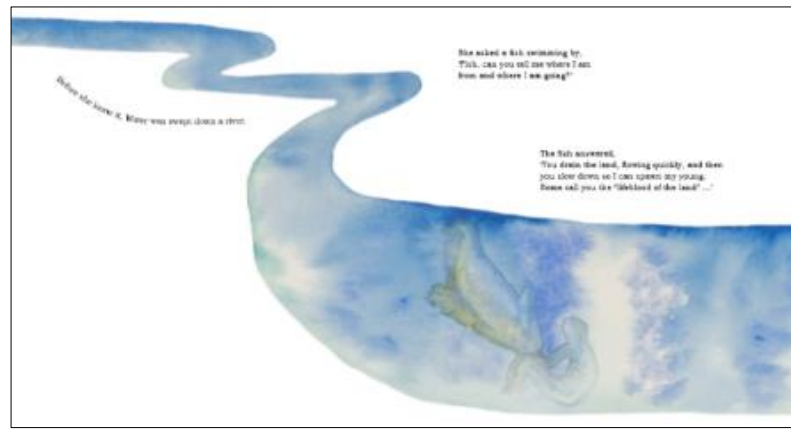
I wonder _____



I see _____

I think _____

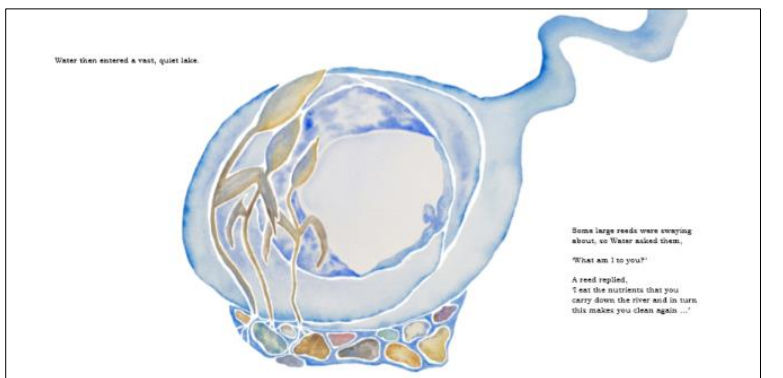
I wonder _____



I see _____

I think _____

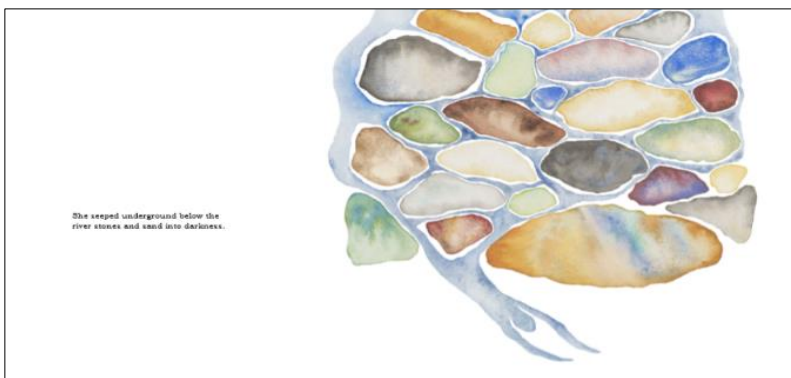
I wonder _____



I see _____

I think _____

I wonder _____



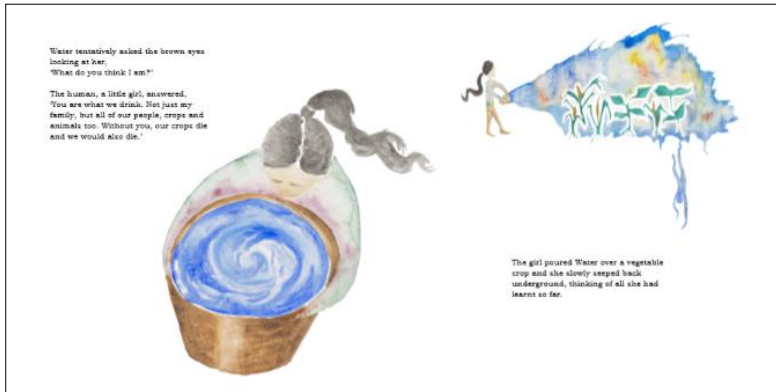
I see _____

I think _____

I wonder _____

When Water Lost Her Way

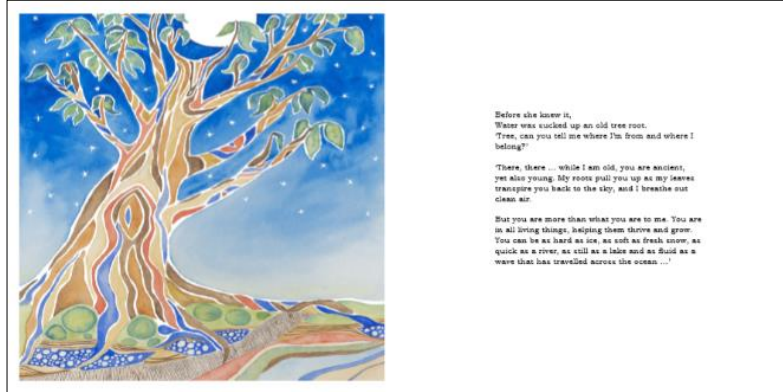
Lesson Plan Foundation – Year 2 Exploring the Water Cycle



I see _____

I think _____

I wonder _____



I see _____

I think _____

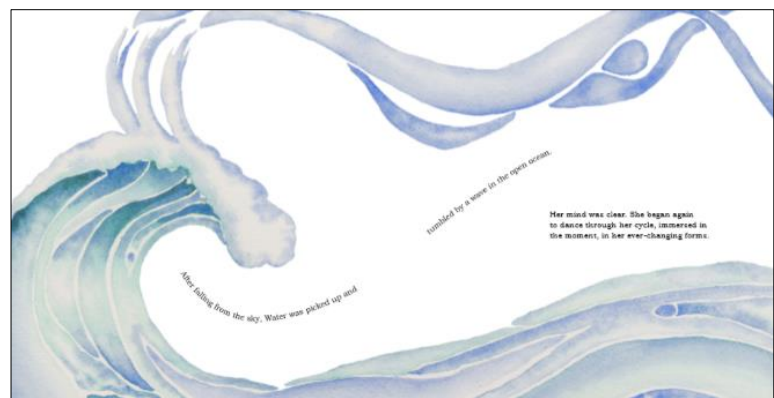
I wonder _____



I see _____

I think _____

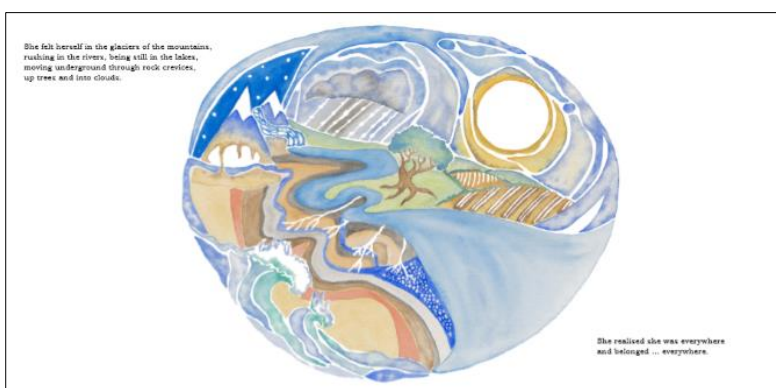
I wonder _____



I see _____

I think _____

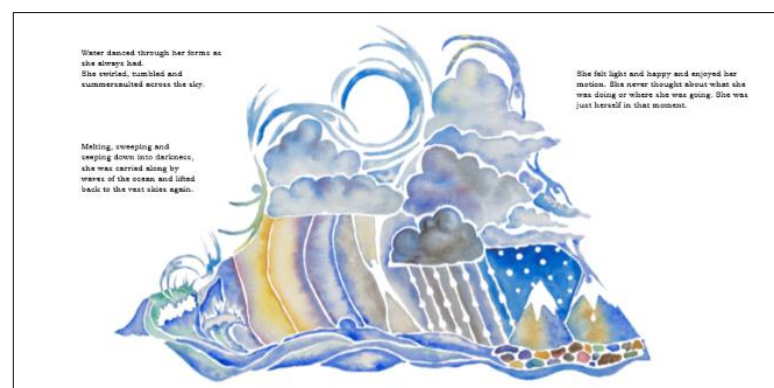
I wonder _____



I see _____

I think _____

I wonder _____



I see _____

I think _____

I wonder _____

When Water Lost Her Way

Lesson Plan Foundation – Year 2 Exploring the Water Cycle

External Resources on the Water Cycle:

Visible Thinking Routines- Lesson plan structure was based on thinking routines

http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03d_UnderstandingRoutines/ThinkPuzzleExplore/ThinkPuzzleExplore_Routine.html

Water cycle rap – Utube music video explaining the water cycle

<https://www.bing.com/videos/search?q=the+water+cycle+rap&&view=detail&mid=DF87D2F356DD4F07CE6CDF87D2F356DD4F07CE6C&rvmid=FD42B5F7CA7BADCED556FD42B5F7CA7BADCED556&FORM=VDQVAP>

USGS Water Science School - the proportions of water stored on earth

<https://water.usgs.gov/edu/earthwherewater.html>

Natural Water Cycle Animation- animated breakdown of the water cycle by South East Water

<https://www.educationsoutheastwater.com.au/resources/natural-water-cycle-interactive>

FUSE Resources for Victorian Curriculum - including water cycle

<http://fuse.education.vic.gov.au/VC/Teacher?science>

Global Water Issues- supporting resources on global water issues & sanitation

<http://www.globaleducation.edu.au/global-issues/gi-water-and-sanitation.html>

Water Aid Organisation links

www.water.org

www.wateraid.org.au