

Week 1: Sunshine

Week 1 - Sunshine	
<p><b>Ia – Why do we need sunshine?</b>                      It helps us make vitamin D</p> <ul style="list-style-type: none"> <li>• Special cells in our skin use sunshine and the oils made by our skin to make vitamin D</li> <li>• Vitamin D helps us build strong bones and teeth, and helps our immune system work properly</li> </ul> <p>It makes us happier</p> <ul style="list-style-type: none"> <li>• Getting out in the sunshine improves people’s moods</li> </ul> <p>It gives us more energy</p> <ul style="list-style-type: none"> <li>• We don’t make energy from the sun the same way plants do, but scientists have discovered that sunshine helps our cells make energy more efficiently!</li> </ul>	<p>When people don’t get enough sunshine, they can become sick with things like:</p> <ul style="list-style-type: none"> <li>• Rickets – without enough vitamin D, their bones don’t grow straight</li> <li>• Seasonal Affective Disorder – some people can feel very sad in the winter, when there is less sunlight, or if they don’t go outside in the sun often enough</li> <li>• Fatigue – this is when people become very tired for a long time and don’t have the energy to do normal things</li> </ul>
<p><b>Assignment:</b> <i>choose something age-appropriate, that interests your child, and that uses another skill you’d like your child to work on. You can have your children answer questions verbally or as a writing assignment.</i></p> <ul style="list-style-type: none"> <li>• Think of something you normally do inside that you could do outside instead.</li> <li>• Most people in Canada spend less than 1 hour/day outside! Can you do better than that? Use a timer to see how much time you spend outdoors each day this week. Make a table to record your numbers and add them up at the end of the week to get your total.</li> <li>• Start growing: plant a seed that you can transplant outside when the weather warms up. Good choices are basil, broccoli, cabbage, kale, leeks, or tomatoes. Be sure to use a good potting mix (not soil from outside) and give your seeds lots of water and light. Use a grow light or place in a south-facing window with plenty of natural sunlight.</li> </ul>	
<p><b>Ib – How the Sun Changes the Seasons</b>                      In the spring, our part of the world, the northern hemisphere, starts to point toward the sun. This means that:</p> <ul style="list-style-type: none"> <li>• We see the sun for a longer part of the day</li> <li>• The sunshine we get is stronger</li> <li>• The air, earth, and water begin to warm up</li> </ul> <p>Lake Superior makes our spring longer</p> <ul style="list-style-type: none"> <li>• Water takes a longer time to heat than air or earth</li> <li>• While sun tries to warm the air, the lake is still cold, and that cools down the air around it</li> </ul>	<p>Waiting for the Seasons to Change: Patience</p> <ul style="list-style-type: none"> <li>• While the lake means we have to wait longer for summer weather, once it does warm up, it holds that heat for longer, and warms the air in the fall &amp; winter when we don’t get as much sun</li> <li>• This stretches out the warmer weather in the fall, and makes our winters less cold than the prairies</li> </ul>
<p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Keep track of what time the sun rises &amp; sets every day. Can you notice a change throughout the week?</li> <li>• Look up the average monthly temperatures in Thunder Bay and I prairie city. How are they different?</li> <li>• Just like waiting for summer, we often have to be patient for other things. What can you do to help yourself be patient?</li> </ul>	

**Ic – Make Hay while the Sun Shines**

- Plants use sunlight for energy
- In the spring, the sunshine starts getting stronger, and some plants start growing early to get as much sun as they can
- Because the strong sunshine won't last forever, these plants make more energy than they need right away, and save the extra in bulbs
- Next spring, they can use the energy they saved to make new stems & leaves

**How does spring affect us?**

- Different seasons give us a chance to do different things: you might work outside more in the summer, and rest inside more in the winter
- Because the sun is getting up earlier, you might wake up earlier in the morning
- Because the sun is up longer, you might stay up later at night
- Before electric lightbulbs were invented, the extra sunlight was important for farmers, who used the long days to get more work done

**Assignment:**

- Look up pictures of different bulbs: tulips, daffodils, and crocuses are some flower that have bulbs. Your parents might even have a garlic bulb for you to look at. Then look up pictures of other roots. Draw 1 bulb and 1 other root. How are they different?
- Think of something you would like to do later – maybe tomorrow, next week, or farther in the future, like the summer, fall, or winter. What could you do right now to prepare?

**Id – Colours of the Sun**

Sunlight is made of many different colours

- Plants need red light to grow flowers, seeds, and fruit
- We need blue light to help our bodies wake up
- Going outside in the morning, when there's lots of blue light, helps us feel more awake

**Blue light at night makes it harder to sleep**

- At night, our bodies make a hormone called melatonin, which helps us sleep
- Blue light stops our bodies from making melatonin
- A cell phone screen has enough blue light to stop your body from making melatonin for 2 hours. Looking at cell phones at night is the most common cause of sleep disorders in teenagers.

**Assignment**

- Look up a picture of a rainbow, and draw your own rainbow using all the colours you see.
- Try going outside for at least a little while first thing in the morning. How do you feel afterwards?
- Because you don't have to get up for school in the morning, you might be staying up later than usual. Try turning off all cell phones, computers, TV screens, and lights in your house when the sun starts going down for 1 week. Do you find it easier to get to sleep at night?

**Ie – You are my Sunshine: The Source of Light, Warmth, & Energy**

- Plants use energy from the sun to grow, and store some of that energy in their roots, stems, leaves, seeds, and fruits
- Animals eat plants to get energy from them
- We eat plants or animals for energy

**Sunshine & Happiness**

- If there was no sun, the world would be cold and dark, and we would have nothing to eat!
- We need food, light, and warmth to live, and these things make us feel happy.
- We call people "sunshine" when they make us feel happy

- Who is your sunshine? What do they do that makes you feel better?
- What are some ways you could make someone else's day brighter?
- Go be a sunshine for someone in your life!