





## Britannica Materials for Grade 2 Science

The following *Britannica Online School Edition* materials support Florida's 2<sup>nd</sup> Grade Sunshine State Standards for Science. Orange County Public Schools can access these resources online at [www.school.eb.com](http://www.school.eb.com) or via the links from the Britannica Web's Best Sites.

There are resources here for both students and teachers. Teacher resources, which are more advanced, are indicated by a bell  and resources that students can use are indicated by a smiley . All resources can be accessed from school or from home.

### BIG IDEA 1: The Practice of Science

#### 1. Science and Scientists

**Sunshine State Standards:** SC.2.N.1.1, SC.2.N.1.2, SC.2.N.1.3, SC.2.N.1.5, SC.2.N.1.6

 **Article:** [www.school.eb.com/elementary/article?articleId=353748](http://www.school.eb.com/elementary/article?articleId=353748)

This article discusses the process scientists use to answer questions about the world.

 **Article:** [http://ksnn.larc.nasa.gov/k2/s\\_scientists.html](http://ksnn.larc.nasa.gov/k2/s_scientists.html)

 **Activity:** [http://ksnn.larc.nasa.gov/k2/s\\_scientists\\_a.html](http://ksnn.larc.nasa.gov/k2/s_scientists_a.html)

What scientists do is explained in this article and activity.

 **Activity:** [www.fossweb.com/modulesK-2/AnimalsTwobyTwo/index.html](http://www.fossweb.com/modulesK-2/AnimalsTwobyTwo/index.html)

Students experience the practice of science in an extended activity based on observing and comparing animals.

 **Video (1 minute):** [http://ksnn.larc.nasa.gov/k2/s\\_scientists\\_v.html](http://ksnn.larc.nasa.gov/k2/s_scientists_v.html)

This video offers an explanation of what scientists do.

## BIG IDEA 6: Earth Structures

### 2. Soil and Rocks



**Sunshine State Standards:** SC.2.E.6.1, SC.2.E.6.2, SC.2.E.6.3



**Article:** [www.school.eb.com/elementary/article?articleId=390622](http://www.school.eb.com/elementary/article?articleId=390622)

Students learn how soil forms and about its layers.



**Article:** [www.school.eb.com/elementary/article?articleId=404136](http://www.school.eb.com/elementary/article?articleId=404136)



**Article:** [www.school.eb.com/elementary/article?articleId=353173](http://www.school.eb.com/elementary/article?articleId=353173)

Two articles about geology and rocks discuss the makeup of the outer layer of earth.



**Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Face%20of%20the%20Earth](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Face%20of%20the%20Earth)

Song tells how the face of the earth is constantly changing due to erosion and other factors.



**Activity:** [www.fossweb.com/modulesK-2/PebblesSandandSilt/index.html](http://www.fossweb.com/modulesK-2/PebblesSandandSilt/index.html)



**Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=365](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=365)

Two activities guide students in observing rocks, learning what is made from rocks, and learning about soil.



**Activity:** [http://pdf.edgate.com/Soil\\_Study\\_K-4.pdf](http://pdf.edgate.com/Soil_Study_K-4.pdf)



**Activity:** [www.sd5.k12.mt.us/glaciereft/geosok5.htm](http://www.sd5.k12.mt.us/glaciereft/geosok5.htm)

Two activities teach about classifying soil types and what makes up soil.



**Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Rock%20Family](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Rock%20Family)



**Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=Rocks%20And%20Gems%20And%20Minerals](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Rocks%20And%20Gems%20And%20Minerals)

Rocks, gems, and minerals are subjects of two children's songs.



## BIG IDEA 7: Earth Systems and Patterns

### 3. Weather

**Sunshine State Standards:** SC.2.E.7.1, SC.2.E.7.2, SC.2.E.7.3, SC.2.E.7.4, SC.2.E.7.5

 **Article:** [www.school.eb.com/elementary/article?articleId=353919](http://www.school.eb.com/elementary/article?articleId=353919)  
Article explains weather including storms, hurricanes, and tornadoes.

 **Article:** [http://ksnn.larc.nasa.gov/k2/s\\_measureWeather.html](http://ksnn.larc.nasa.gov/k2/s_measureWeather.html)


 **Video:** [http://ksnn.larc.nasa.gov/k2/s\\_measureWeather\\_v.html](http://ksnn.larc.nasa.gov/k2/s_measureWeather_v.html)

 **Activity:** [http://ksnn.larc.nasa.gov/k2/s\\_measureWeather\\_a.html](http://ksnn.larc.nasa.gov/k2/s_measureWeather_a.html)

 **Activity:** [http://askeric.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Science/Process\\_Skills/SPS0034.html](http://askeric.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Science/Process_Skills/SPS0034.html)

 **Activity:** <http://askeric.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Science/Meteorology/MET0027.html>


A variety of resources explain the measurement of weather.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Makes%20The%20Weather](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Makes%20The%20Weather)

What makes the weather is defined in a song.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=Hurricanium](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Hurricanium)

Children's song explains how hurricanes form and move.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=Who%20Is%20Afraid%20of%20Thunder](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Who%20Is%20Afraid%20of%20Thunder)

Song tells students what causes thunder and why it should not be scary.

 **Image - Hurricane:** [www.school.eb.com/elementary/art-90624](http://www.school.eb.com/elementary/art-90624)

 **Image - Tornado:** [www.school.eb.com/elementary/art-90363](http://www.school.eb.com/elementary/art-90363)

 **Image - Fog:** [www.school.eb.com/elementary/art-88837](http://www.school.eb.com/elementary/art-88837)

 **Image - Blizzard:** [www.school.eb.com/elementary/art-90323](http://www.school.eb.com/elementary/art-90323)

 **Image - Lightning:** [www.school.eb.com/elementary/art-75285](http://www.school.eb.com/elementary/art-75285)

 **Image - Lightning:** [www.school.eb.com/elementary/art-105252](http://www.school.eb.com/elementary/art-105252)

These image depict various types of weather.

## Weather, *continued*

 **Link:** [www.wildwildweather.com](http://www.wildwildweather.com)

 **Link:** [www.weatherwizkids.com](http://www.weatherwizkids.com)

Web sites created by meteorologists provide weather resources for students and teachers.

 **Activity:** [www.fossweb.com/modulesK-2/AirandWeather/index.html](http://www.fossweb.com/modulesK-2/AirandWeather/index.html)

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=416](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=416)

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?DocID=329](http://www.sciencenetlinks.com/lessons.cfm?DocID=329)

Three activities help students understand temperature and how the sun provides heat.

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=493](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=493)

Students understand that weather changes from day to day.

 **Activity:** [http://wings.avkids.com/Curriculums/Atmosphere/as\\_the\\_wind\\_blowes\\_howto.html](http://wings.avkids.com/Curriculums/Atmosphere/as_the_wind_blowes_howto.html)

Students build a windsock to learn about the wind.

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=494](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=494)

Students grasp the cycle of changing seasons.

 **Video (2 minutes):** [www.school.eb.com/elementary/art-83521](http://www.school.eb.com/elementary/art-83521)

This short video shows the power of storms.

 **Video (1 minute):** [www.school.eb.com/elementary/art-82756](http://www.school.eb.com/elementary/art-82756)

The term 'meteorologist' is defined.

 **Video (2 minutes):** [www.school.eb.com/elementary/art-82757](http://www.school.eb.com/elementary/art-82757)

The movement of air and how it impacts weather are depicted.

 **Video: (1 minute):** [www.school.eb.com/elementary/art-18525](http://www.school.eb.com/elementary/art-18525)


Tornadoes show their power and destructive capability.


 **Video (1 minute):** [www.school.eb.com/elementary/art-82760](http://www.school.eb.com/elementary/art-82760)

This video shows the formation and power of hurricanes.



## Weather, *continued*

 **Video (2 minutes):** [www.school.eb.com/elementary/art-83517](http://www.school.eb.com/elementary/art-83517)  
Land, air, water, and sun impact the weather.

 **Video (1 minute):** [www.school.eb.com/elementary/art-18521](http://www.school.eb.com/elementary/art-18521)  
This video shows the formation of a thunderstorm.

## BIG IDEA 8: Properties of Matter


### 4. Matter


**Sunshine State Standards:** SC.2.P.8.1, SC.2.P.8.2, SC.2.P.8.3, SC.2.P.8.4, SC.2.P.8.5, SC.2.P.8.6


 **Article:** [www.school.eb.com/elementary/article?articleId=353444](http://www.school.eb.com/elementary/article?articleId=353444)

 **Article:** [www.school.eb.com/elementary/article?articleId=390761](http://www.school.eb.com/elementary/article?articleId=390761)  
Articles discuss the states and properties of matter and heat.

 **Activity:** [www.childrensmuseum.org/geomysteries/floatingrock/a1.html](http://www.childrensmuseum.org/geomysteries/floatingrock/a1.html)

 **Activity 'Water Test':**  
[www.school.eb.com/elementary/browse/learning?subject=Physical%20Science&level=&category=Exercises](http://www.school.eb.com/elementary/browse/learning?subject=Physical%20Science&level=&category=Exercises)

 **Activity 'Sink or Float':**  
[www.school.eb.com/elementary/browse/learning?subject=Physical%20Science&level=&category=Exercises](http://www.school.eb.com/elementary/browse/learning?subject=Physical%20Science&level=&category=Exercises)

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?BenchmarkID=4&DocID=164](http://www.sciencenetlinks.com/lessons.cfm?BenchmarkID=4&DocID=164)  
Students learn about the properties and phases of water.

 **Activity:** [www.sciencenetlinks.com/Lessons.cfm?DocID=4](http://www.sciencenetlinks.com/Lessons.cfm?DocID=4)

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=168](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=168)

 **Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=161](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=4&DocID=161)  
Various activities help students understand about water melting and freezing.

## BIG IDEA 9: Changes in Matter

### 5. Matter

**Sunshine State Standards:** SC.2.P.9.1

 **Article:** [www.school.eb.com/elementary/article?articleId=353444](http://www.school.eb.com/elementary/article?articleId=353444)

 **Link:** [www.chem4kids.com/files/matter\\_states.html](http://www.chem4kids.com/files/matter_states.html)

This article and web site include sections and diagrams on changes in matter.


 **Activity:** [http://ksnn.larc.nasa.gov/k2/s\\_statesMatter\\_a.html](http://ksnn.larc.nasa.gov/k2/s_statesMatter_a.html)

 **Video (1 minute):** [http://ksnn.larc.nasa.gov/k2/s\\_statesMatter\\_v.html](http://ksnn.larc.nasa.gov/k2/s_statesMatter_v.html)

Students learn about the changes and states of matter in this video and activity.

 **Video (2 minutes):** [www.school.eb.com/elementary/browse/art-55441](http://www.school.eb.com/elementary/browse/art-55441)

This video explains water including its molecular makeup and its three states: solid, liquid and gas.

 **Activity:** <http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Solid,%20Liquid,%20Gas>

Song explains the three states of matter: solid, liquid and gas.

## BIG IDEA 10: Forms of Energy

### 6. Energy

**Sunshine State Standards:** SC.2.P.10.1

 **Article:** [www.school.eb.com/elementary/article?articleId=353100](http://www.school.eb.com/elementary/article?articleId=353100)

This article discusses energy and its various forms including electricity.

 **Image:** [www.school.eb.com/elementary/art-105882](http://www.school.eb.com/elementary/art-105882)

 **Image:** [www.school.eb.com/elementary/art-107578](http://www.school.eb.com/elementary/art-107578)

 **Image:** [www.school.eb.com/elementary/art-96161](http://www.school.eb.com/elementary/art-96161)

 **Image:** [www.school.eb.com/elementary/art-107579](http://www.school.eb.com/elementary/art-107579)



## Energy, *continued*


 **Image:** [www.school.eb.com/elementary/art-105834](http://www.school.eb.com/elementary/art-105834)


 **Image:** [www.school.eb.com/elementary/art-106845](http://www.school.eb.com/elementary/art-106845)


 **Image:** [www.school.eb.com/elementary/art-90861](http://www.school.eb.com/elementary/art-90861)

 **Image:** [www.school.eb.com/elementary/art-87271](http://www.school.eb.com/elementary/art-87271)

Solar power and other types of energy are depicted in a variety of images.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Is%20Energy](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Is%20Energy)  
Song explains energy to students.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=Energy%20In%20Roundabout%20Ways](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Energy%20In%20Roundabout%20Ways)  
Song helps students understand the Sun as a source of energy.

 **Video (20 minutes):** [www.school.eb.com/elementary/art-94737](http://www.school.eb.com/elementary/art-94737)  
This video discusses electricity and how it is used in a typical home.

## BIG IDEA 13: Forces and Changes in Motion

### 7. Force & Motion

**Sunshine State Standards:** SC.2.P.13.1, SC.2.P.13.2, SC.2.P.13.4

 **Article - Force:** [www.school.eb.com/elementary/article?articleId=400287](http://www.school.eb.com/elementary/article?articleId=400287)

 **Article - Motion:** [www.school.eb.com/elementary/article?articleId=399909](http://www.school.eb.com/elementary/article?articleId=399909)

Articles and images discuss various kinds of force and motion, and changes due to push or pull.

 **Image:** [www.school.eb.com/elementary/art-87371](http://www.school.eb.com/elementary/art-87371)

Students use force in tug-of-war.

 **Image:** [www.school.eb.com/elementary/art-93507](http://www.school.eb.com/elementary/art-93507)

A horseshoe magnet attracts objects with its magnetic force.

 **Video (1 minute):** [http://ksnn.larc.nasa.gov/k2/s\\_whatForce\\_v.html](http://ksnn.larc.nasa.gov/k2/s_whatForce_v.html)

 **Activity:** [http://ksnn.larc.nasa.gov/k2/s\\_whatForce.html](http://ksnn.larc.nasa.gov/k2/s_whatForce.html)

Video and accompanying activity explain force and how it can act on an object.



## Force & Motion, *continued*



**Activity:** [www.sciencenetlinks.com/Lessons.cfm?DocID=35](http://www.sciencenetlinks.com/Lessons.cfm?DocID=35)

Students experience making things move from one place to another.

## BIG IDEA 14: Organization and Development of Living Organisms

### 8. Living Organisms

**Sunshine State Standards:** SC.2.L.14.1



**Article - Plants:** [www.school.eb.com/elementary/article?articleId=353639](http://www.school.eb.com/elementary/article?articleId=353639)



**Article - Animals:** [www.school.eb.com/elementary/article?articleId=352756](http://www.school.eb.com/elementary/article?articleId=352756)

Articles explain the importance of plants and animals with a diagram of a plant growing from seed.



**Link:** [www.kidshealth.org/kid/htbw/htbw\\_main\\_page.html](http://www.kidshealth.org/kid/htbw/htbw_main_page.html)

This web site offers activities, games, and videos about how the human body works.



**Activity:** [www.sciencenetlinks.com/lessons.cfm?DocID=395](http://www.sciencenetlinks.com/lessons.cfm?DocID=395)

Students observe similarities and differences between plants and animals.



**Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Is%20An%20Animal%20What%20Is%20A%20Plant](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Is%20An%20Animal%20What%20Is%20A%20Plant)  
Song clarifies the difference between animals and plants.



**Activity (Body Works):** [www.school.eb.com/comptons/learningmaterial?id=72725](http://www.school.eb.com/comptons/learningmaterial?id=72725)



**Activity (Body Parts):**

[www.school.eb.com/elementary/browse/learning?subject=Life%20Science&level=&category=Exercises](http://www.school.eb.com/elementary/browse/learning?subject=Life%20Science&level=&category=Exercises)

Two activities help students identify body parts and match them to their functions.



**Activity:** [www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=5&DocID=343](http://www.sciencenetlinks.com/lessons.cfm?Grade=k-2&BenchmarkID=5&DocID=343)

Students learn the parts of a plant and how to observe and compare them.



## BIG IDEA 16: Heredity and Reproduction

### 9. Life Cycles of Plants and Animals



Sunshine State Standards: SC.2.L.16.1

 **Link:** [www.school.eb.com/elementary/animalkingdom](http://www.school.eb.com/elementary/animalkingdom)


Students can explore animals by habitat or group in Britannica's *Animal Kingdom*.

 **Link:** [www.school.eb.com/elementary/subject?id=1759&subject=Plants](http://www.school.eb.com/elementary/subject?id=1759&subject=Plants)

This web site offers a list of subject areas on plants with links to articles about different kinds of plants.

 **Image:** [www.school.eb.com/elementary/art-52902](http://www.school.eb.com/elementary/art-52902)


Students see the leopard frog life cycle.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=How%20Does%20A%20Frog%20Grow](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=How%20Does%20A%20Frog%20Grow)

Song helps students learn about how a frog grows from an egg to an adult.

 **Activity:** [www.fossweb.com/modulesK-2/PlantsandAnimals/index.html](http://www.fossweb.com/modulesK-2/PlantsandAnimals/index.html)

This activity allows students to watch and compare plants as they grow.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Are%20The%20Parts%20of%20A%20Flower](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=What%20Are%20The%20Parts%20of%20A%20Flower)

Song helps students learn the parts of a flower.

 **Video (2 minutes):** [www.school.eb.com/elementary/art-18524](http://www.school.eb.com/elementary/art-18524)

Students learn about the life cycle of the North American toad.

 **Video (1 minute):** [www.school.eb.com/elementary/art-83787](http://www.school.eb.com/elementary/art-83787)

Video demonstrates that all plants experience cycles.

 **Video (11 minutes):** [www.school.eb.com/elementary/art-94890](http://www.school.eb.com/elementary/art-94890)

Processionary caterpillars and peacock butterflies have similar life cycles.



Reading



Diagram



Online Resource



Activity



Video



## BIG IDEA 17: Interdependence

### 10. Basic Needs, the Environment and Habitats



**Sunshine State Standards:** SC.2.L.17.1, SC.2.L.17.2



**Article:** [www.school.eb.com/all/elementary/article?articleId=399971](http://www.school.eb.com/all/elementary/article?articleId=399971)

Encyclopedia article explains what living things need.



**Article:** [www.school.eb.com/elementary/article?articleId=390625](http://www.school.eb.com/elementary/article?articleId=390625)

Water and its necessity for life are described in this article.



**Article:** [www.school.eb.com/all/elementary/article?articleId=399492](http://www.school.eb.com/all/elementary/article?articleId=399492)

Article discusses types of habitats and how plants and animals adapt to them.



**Activity:** [www.sciencenetlinks.com/lessons.cfm?BenchmarkID=8&DocID=377](http://www.sciencenetlinks.com/lessons.cfm?BenchmarkID=8&DocID=377)

Students become familiar with what plants need to grow.



**Activity:** [www.nationalgeographic.com/xpeditions/lessons/04/gk2/dinosaurs.html](http://www.nationalgeographic.com/xpeditions/lessons/04/gk2/dinosaurs.html)

This activity on dinosaurs helps students understand that some animals prefer certain types of habitats.



**Video (1 minute):** [www.school.eb.com/all/art-84683](http://www.school.eb.com/all/art-84683)

Some plants and animals are dependent on each other to survive.



**Video (1 minute):** [http://ksnn.larc.nasa.gov/videos\\_cap.cfm?unit=phoenix2](http://ksnn.larc.nasa.gov/videos_cap.cfm?unit=phoenix2)

Video discusses the importance of water to all living things.



Reading



Diagram



Online Resource



Activity



Video

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