



## Britannica Materials for Grade 1 Science

The following *Britannica Online School Edition* materials support Florida's 1<sup>st</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 Scientific Method

**Sunshine State Standards:** SC.1.N.1.1, SC.1.N.1.3

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

This article discusses the different types of science and the process scientists use to answer questions about the world.

**Activity:** [www.agclassroom.org/teacher/pdf/agcounts/7gradek\\_3.pdf](http://www.agclassroom.org/teacher/pdf/agcounts/7gradek_3.pdf)

With this lesson plan teachers can provide practice observing same/different, collecting data, describing, comparing, and making observations.

**Activity:**  
[http://wings.avkids.com/Curriculum/Dinosaurs/dinosaur\\_model\\_howto.html](http://wings.avkids.com/Curriculum/Dinosaurs/dinosaur_model_howto.html)

Students receive an introduction to science as studying through observation.

#### 2. Senses

**Sunshine State Standards:** SC.1.N.1.2, SC.1.N.1.4

Note: Before doing activities that use food products, please consult [science.ocps.net](http://science.ocps.net) for safety guidelines.

**Article:** [www.school.eb.com/elementary/article?articleId=353759](http://www.school.eb.com/elementary/article?articleId=353759)

This article defines the five senses and includes diagrams.




## Senses, *continued*


 **Link:** <http://faculty.washington.edu/chudler/chsense.html>  
Website offers experiments, puzzles, and activities on the senses.


## BIG IDEA 5: Earth in Space and Time


### 3. Gravity **Sunshine State Standards:** SC.1.E.5.2

 **Article:** [www.school.eb.com/elementary/article?articleId=400109](http://www.school.eb.com/elementary/article?articleId=400109)  
This article explains gravity and includes illustrations.


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


 **Video:** [http://ksnn.larc.nasa.gov/k2/s\\_whatGravity\\_v.html](http://ksnn.larc.nasa.gov/k2/s_whatGravity_v.html)  
Students perform an experiment to see how gravity works in this activity and accompanying video.


 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Gravity%20Song](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Gravity%20Song)  
Students learn about gravity in this song.

 **Video (2 minutes):** [www.school.eb.com/elementary/browse/art-55621](http://www.school.eb.com/elementary/browse/art-55621)  
This video discusses the universal force of attraction between matter and the influence of distance and size.


### 4. Earth **Sunshine State Standards:** SC.1.E.5.2


 **Article:** [www.school.eb.com/elementary/article?articleId=353074](http://www.school.eb.com/elementary/article?articleId=353074)  
Article with illustrations discusses Earth's characteristics, including its orbit and rotation.


 **Image:** [www.school.eb.com/elementary/art-90815](http://www.school.eb.com/elementary/art-90815)  
Students see the Earth in a photo taken by astronauts orbiting the moon.


 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Earth%20Goes%20Around%20The%20Sun](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=The%20Earth%20Goes%20Around%20The%20Sun)  
Learn about the Earth orbiting the Sun in a children's song.


5. Sun      
**Sunshine State Standards:** SC.1.E.5.4


 **Article:** [www.school.eb.com/elementary/article?articleId=353824](http://www.school.eb.com/elementary/article?articleId=353824)  
Article teaches about the sun and offers a diagram showing the core, sunspots, etc.


 **Image:** [www.kidsastronomy.com/solar\\_system.htm](http://www.kidsastronomy.com/solar_system.htm)  
Students see the solar system in action in this animated illustration.

 **Activity:** [www.kidsknowit.com/educational-songs/index.php?topic=Astronomy](http://www.kidsknowit.com/educational-songs/index.php?topic=Astronomy)  
Scroll down to find several songs about the sun, listed on the right.


 **Image:** [www.school.eb.com/elementary/art-88918](http://www.school.eb.com/elementary/art-88918)  
A simple diagram shows how the sun warms the earth.

 **Activity:** [www.kidsknowit.com/educational-songs/play-educational-song.php?song=Solar%20Energy](http://www.kidsknowit.com/educational-songs/play-educational-song.php?song=Solar%20Energy)  
Solar energy is explained in a song.


 **Activity:** [www.sciencenetlinks.com/lessons.cfm?DocID=329](http://www.sciencenetlinks.com/lessons.cfm?DocID=329)  
Activity helps students understand how the sun warms the land, sea, and air.


 **Video (2 minutes):** [www.school.eb.com/all/elementary/art-82761](http://www.school.eb.com/all/elementary/art-82761)  
This video explains that the sun is a star.

6. Stars       
**Sunshine State Standards:** SC.1.E.5.1

 **Article:** [www.school.eb.com/elementary/article?articleId=353808](http://www.school.eb.com/elementary/article?articleId=353808)  
This article discusses different types of stars and includes several images of stars.

 **Image:** [www.school.eb.com/elementary/art-66620](http://www.school.eb.com/elementary/art-66620)

 **Link:** [www.sciencenetlinks.com/Esheet.cfm?DocID=128](http://www.sciencenetlinks.com/Esheet.cfm?DocID=128)  
Students see a photo of a star cluster and other images with questions to consider.

 **Activity:** [www.kidsknowit.com/educational-songs/index.php?topic=Astronomy](http://www.kidsknowit.com/educational-songs/index.php?topic=Astronomy)  
Scroll down to see the list including three songs about stars.

## Stars, *continued*

 **Video (13 minutes):** [www.school.eb.com/elementary/browse/art-94718](http://www.school.eb.com/elementary/browse/art-94718)

Video helps students understand how mankind has been able to see into outer space from early observations to telescopes and satellites.

### 7. Magnification

**Sunshine State Standards:** SC.1.E.5.3

 **Article:** [www.school.eb.com/elementary/article?articleId=400085](http://www.school.eb.com/elementary/article?articleId=400085)

Article explains how binoculars magnify an object and students can use the online magnifying tool to see how a magnifier enlarges an object.

## BIG IDEA 6: Earth Structures

### 8. Earth's Surface - Water


**Sunshine State Standards:** SC.1.E.6.1, SC.1.E.6.2, SC.1.L.17.1

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

This article discusses water, its composition, and its various states.

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

This level video for teachers gives details about water, its molecular makeup, and its three states: solid, liquid and gas.

 **Activities:** Learning Zone "Sit on the Sand" [www.learningzone.eb.com](http://www.learningzone.eb.com)

This activity helps students learn about being safe around water. Click to Enter, then click on Play. Select "I Can Read" and look for "Sit on the Sand" at the top of the screen.

 **Activity:** [www.kidsknowit.com/educational-songs/index.php?topic=Geography](http://www.kidsknowit.com/educational-songs/index.php?topic=Geography)

See the list for several children's songs about water.

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

Video helps students grasp water's importance to all living things.



## 9. Earth's Surface - Soil



**Sunshine State Standards:** SC.1.E.6.1



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

Article offers information on soil, how it forms, and its various layers.

## 10. Earth's Surface - Rocks



**Sunshine State Standards:** SC.1.E.6.1



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

This article explains how rocks make up the outer layer of the Earth.



**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)

Students learn about rocks, gems, and minerals in two songs.

## BIG IDEA 8: Properties of Matter

### 11. Matter



**Sunshine State Standards:** SC.1.P.8.1



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

Article discusses the states and properties of matter.



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

Matter is explained for students and links lead to additional information.



**Activity:** [www.school.eb.com/student/games/GE\\_1\\_11/GE\\_1\\_11.htm](http://www.school.eb.com/student/games/GE_1_11/GE_1_11.htm)



**Activity:** [www.school.eb.com/student/games/GS\\_1\\_13/GS\\_1\\_13.htm](http://www.school.eb.com/student/games/GS_1_13/GS_1_13.htm)



**Activity:** [www.sciencenetlinks.com/lessons.cfm?BenchmarkID=4&DocID=164](http://www.sciencenetlinks.com/lessons.cfm?BenchmarkID=4&DocID=164)

Students gain an understanding of sinking and floating through these activities.



Reading



Diagram



Online Resource



Activity



Video



**BIG IDEA 12: Motion of Objects**  
**BIG IDEA 13: Forces and Changes in Motion**

**12. Force & Motion**    

**Sunshine State Standards:** SC.1.P.12.1, SC.1.P.13.1

 **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 show students various kinds of force, motion, and changes due to push or pull.


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

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

Force is defined in this activity and accompanying video.

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

This lesson plan includes an activity about making things move.

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

Students learn that motion is everywhere.

 **Activity:** [www.school.eb.com/student/games/GS\\_1\\_9/GS\\_1\\_9.htm](http://www.school.eb.com/student/games/GS_1_9/GS_1_9.htm)

Students learn about how things move.

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

**13. Plants and Animals**    

**Sunshine State Standards:** SC.1.L.14.1, SC.1.L.14.2, SC.1.L.14.3

 **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 discuss the importance and types of plants and animals.

## Plants and Animals, *continued*

 **Image:** [www.school.eb.com/elementary/art-105782](http://www.school.eb.com/elementary/art-105782)

This diagram illustrates how a plant grows from a seed.


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

This lesson plan and activity helps students observe the similarities and differences between plants and animals.


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

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


Activity and accompanying video explains what plants need to grow.

 **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)

This song explains the difference between animals and plants.

 **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)

Students learn the parts of a flower through a song.

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

This song helps students grasp the importance of loving the animals including 'us.'

## BIG IDEA 16: Heredity and Reproduction

### 14. Genetics

**Sunshine State Standards:** SC.1.L.16.1

 **Article:** [www.school.eb.com/elementary/article?articleId=353170](http://www.school.eb.com/elementary/article?articleId=353170)

Genetics is explained with information on how traits and conditions can be inherited.

 **Image:** [www.school.eb.com/elementary/art-114572/A-family-welcomes-its-newest-member](http://www.school.eb.com/elementary/art-114572/A-family-welcomes-its-newest-member)

A family is shown welcoming a new baby.



## BIG IDEA 17: Interdependence

### 15. Basic Needs and the Environment



**Sunshine State Standards:** SC.1.L.17.1, SC.1.E.6



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

Article discusses what living things need to survive.



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

This article provides information on water, its composition, and its various states.



**Activity:** [http://corporate.britannica.com/learning\\_zone/teachers\\_guide\\_sciencelesson.pdf](http://corporate.britannica.com/learning_zone/teachers_guide_sciencelesson.pdf)

*Britannica Learning Zone* teacher's guide offers a science lesson on identifying similarities and differences in the appearance and behavior of plants and animals.



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

The balance of nature is explained through song.



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

Teachers can use this lesson plan for an activity on what plants need to grow.



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

Video helps students grasp water's importance to all living things.



Reading



Diagram



Online Resource



Activity



Video

6/15/09



For Students



For Teachers

Page 8

Schools may duplicate as necessary.

© Encyclopædia Britannica