

# Family Guide to Understanding RI NGSA

*RI Next Generation Science Assessment – Spring 2021*

Office of Instruction, Assessment, & Curriculum

November 2021



**RIDE** Rhode Island  
Department  
of Education

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# What is RI NGSA?




RI Next Generation Science Assessment (RI NGSA or NGSA) is an annual assessment taken by Rhode Island students in grades 5, 8, and 11 that assesses students' understanding of the Next Generation Science Standards (NGSS). The assessment measures students' science knowledge as well as their ability to think critically, analyze information, and apply science practices.

First administration took place in Spring 2019, and there was no assessment in Spring 2020. Rhode Island and Vermont partnered to develop this assessment, which is built with items developed by ten states.

Student performance on the assessment gives a signal of student readiness for the next grade level based on the content standards for their corresponding grade band (grades 3-5, 6-8, and high school).

## What areas of science are covered on the test?

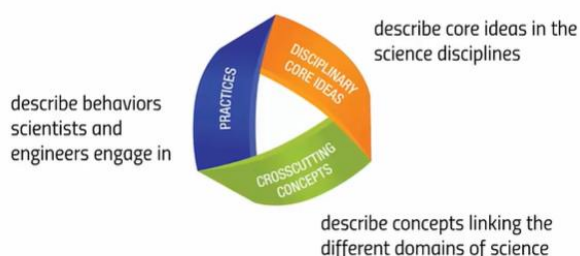
Rhode Island's science assessment measures three disciplines from the Next Generation Science Standards (NGSS): *Life Sciences*, *Physical Sciences*, and *Earth and Space Sciences*.

	Physical Science (PS)
	Life Science (LS)
	Earth and Space Science (ESS)

The NGSS were designed to set what students should be able to do in order to demonstrate that they are on track to succeed in jobs and opportunities in science, technology, engineering, and mathematics (STEM).

Since students learn science by doing science, the science assessment mimics that application in how the items are designed and what students experience. Students utilize scientific *practices* through the lens of the *cross-cutting concepts* to investigate phenomena that relate to the content of the *disciplinary core ideas* for that particular area of science.

### Three Dimensions



*Disciplinary core ideas* are the important ideas that are necessary for understanding a particular science discipline.

*Crosscutting concepts* are the concepts that connect across different disciplines or situations that students can use to connect new learning to prior experience.




# What is the test like?

Students take two sixty-minute sessions, but students may use additional time if they need it to continue working productively.


The assessment is designed to be given on a computer, though a paper version is available for students who have that accommodation documented.

Science




Apply understanding of disciplinary core ideas and crosscutting concepts to solve real-world problems

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Engage with scientific scenarios by using science and engineering practices

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Interact with items, including simulations and animations that require evidence selection to support answer choices

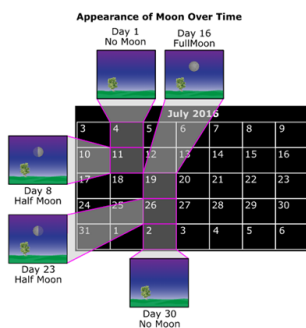
## Item and question types

Items are like performance tasks. The “stimulus” provides the information that the student will use to answer the items. This stimulus may include one or more passages, videos, data sets, or diagrams. Sometimes there is only one item for a stimulus; other times, a stimulus may have multiple items associated with it, as in the following example:

When observed from Earth over the course of a month, the appearance of the moon changes.

In the questions that follow, you will develop and use a model to explain why the appearance of the moon changes over time.

Five observations illustrate the change in the moon’s appearance over the course of a month. The observations were all made on clear nights around midnight in New York City. The moon’s appearance on each of the five nights is shown in the diagram.



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Two additional parts are necessary for a physical model that can explain why the moon’s appearance changes over time. Click on each blank box and select the word or phrase that completes the statements about what parts should be added to the model.

In order for the model to explain why the moon changes appearance when viewed from Earth,  traveling from  must be added as a part. Additionally, in order to work most effectively, the model should be used .

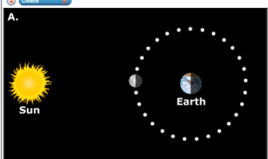
**396**

A virtual model of the Sun, Earth, and moon system is shown. Each dot on the moon’s orbit represents one day in the moon’s monthly journey around Earth. In this model, the moon moves counterclockwise around Earth. The moon is currently placed at Day 1. The moon will be in that same position on Day 30 of the cycle.

A. Click on a dot to select a day in the moon’s orbit around Earth.

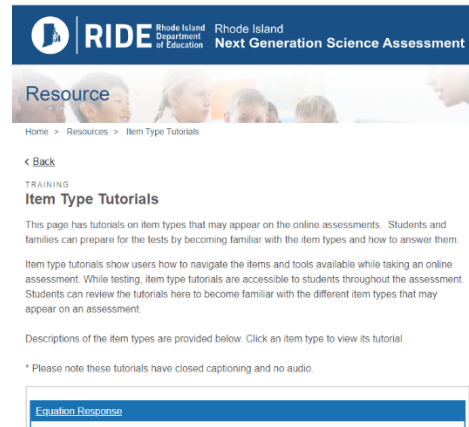
B. Place the correct moon phase in the blank box to predict how the moon would appear from Earth on the day you chose.

☉  
 ☾  
 ☽  
 ☾  
 ☉

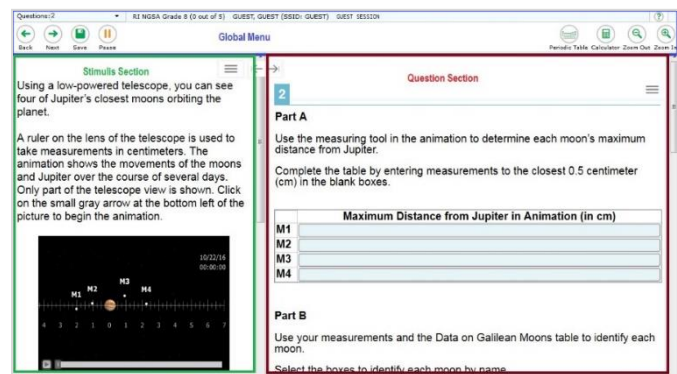


**B. Prediction of Moon Phase**

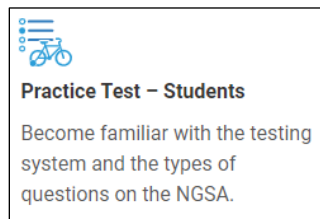
Item types include selected response, drop-down, fill-in-the-blank, graphing, and simulations. An item may have multiple parts that need to be completed in order for a student to earn full credit. Students can try out each of the item types through the [Item Type Tutorials](#) available on the [NGSA Portal's Students and Families page](#).



Students can gain experience with the testing platform, various item types, and tools they can use on the test (such as calculators) through the online practice test for their grade level. Practice tests also allow students with accommodations to become familiar with text-to-speech and other supports.



You and your child can access the [Practice Test](#) through the [NGSA Portal](#).



The [Practice Test brochure](#) provides directions for how to use the practice test system.



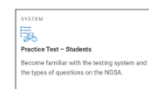
### HOW TO ACCESS THE RI NGSA PRACTICE TEST

The Practice Test will help you become familiar with what the testing environment will be like before you take the actual RI NGSA test. On the Practice Test, you will be able to preview the types of questions and interactions that will appear on the RI NGSA test. The Practice Test will also help you understand how to use the test tools that you will have access to in the RI NGSA test.

The information below provides instructions to access and score these sample items in CAI's Test Delivery System (TDS).

#### ACCESSING THE RI NGSA PRACTICE TEST

- 1 Rhode Island Next Generation Science Assessment Portal (<https://ri.portal.cambiumtest.com/>)
- 2 Click on the **Practice Test – Students** card.



- 3 The sign-in page appears. You have two options to log in:
  - To log in to the sessions as a guest, verify that the toggles for Guest User and Guest Session are turned ON.

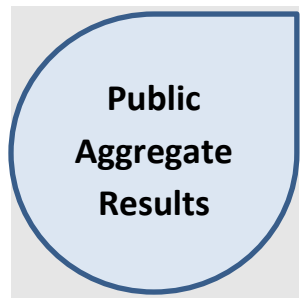
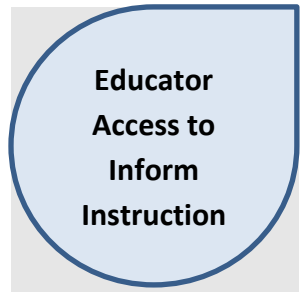
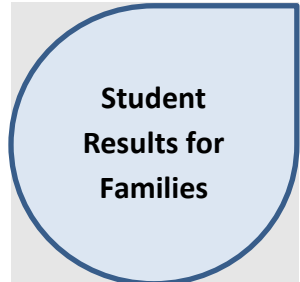


# Why are NGSA results important?

NGSA gives teachers, students, and families information about student understanding, school performance, and how to improve teaching and learning. The performance standards for NGSA signal students' readiness for the next grade band.

## When and how are NGSA results reported?

NGSA results are reported in the fall of the same calendar year the assessment took place. Spring 2021 assessment results will be released in November 2021. State-, district-, and school-level results are made available to the general public: data that are released in aggregate form (groups) make it possible to see how schools, districts, and the state are doing while keeping individual student results confidential. Student-level information is only available to certain educators and an individual student's family.

 <p><b>Public Aggregate Results</b></p>	<ul style="list-style-type: none"><li>• Posted on the Rhode Island Assessment Data Portal (<a href="http://www.ride.ri.gov/RIADP">www.ride.ri.gov/RIADP</a>).</li><li>• School, district, and state levels in aggregate form: reporting averages for groups of students protects student confidentiality.</li><li>• Families, community members, and educators can review this data.</li><li>• Review how schools are doing, including comparing between schools within and across districts.</li></ul>
 <p><b>Educator Access to Inform Instruction</b></p>	<ul style="list-style-type: none"><li>• Educators receive access to the results of the students they teach.</li><li>• Only accessible through a confidential, secure login system.</li><li>• Educators analyze student results to help them better support the students – whether that means refining their instructional practices or adjusting curricular decisions.</li></ul>
 <p><b>Student Results for Families</b></p>	<ul style="list-style-type: none"><li>• The family of each student receives their student's NGSA results in the form of the individual student score report (ISR).</li><li>• ISRs are provided to families from the student's school district.</li><li>• Districts also retain a PDF copy of the student's ISR and can securely transfer that to a student's family or use it to re-print the ISR if a duplicate is needed.</li></ul>

# More Information about Individual Student Reports

RIDE has created a guide to help families understand the individual student score report (ISR) they receive, which is posted at [www.ride.ri.gov/Assessment-Families](http://www.ride.ri.gov/Assessment-Families). The NGSA ISRs for grades 5, 8, and 11 have been translated into Spanish and Portuguese.

ISRs include the following information, explained in more detail in the guide:

- general information about this year’s administration
- student scale score and overall achievement level
- achievement comparison with the school/district/state
- domain performance level for each of the three science disciplines

## Spring 2021 Rhode Island Next Generation Science Assessment Individual Student Report



Name: Last Name, First Name  
 SASID: 999992345  
 Date of Birth: 04/29/2005

District: Demo District (9999)  
 School: Demo Middle School (99999998)  
 Grade: #

**What is the Next Generation Science Assessment? (NGSA)**  
 This report provides your child's results from the 2021 Next Generation Science Assessment (NGSA). The NGSA measures student knowledge and skills on the Next Generation Science Standards (NGSS) that Rhode Island adopted in 2013 ([www.ride.ri.gov/NGSS](http://www.ride.ri.gov/NGSS)). NGSA is administered to students in grades 5, 8, and 11 and provides information on student knowledge and skills in the areas of life science, physical sciences, and earth and space sciences.

**State tests provide valuable information for you and your child's teacher**  
 The COVID-19 pandemic brought new challenges to our schools, and parents, teachers, and administrators worked together over the past year to address and overcome these challenges. When reviewing your child's results from this assessment, keep in mind that your child's performance may have been influenced by disruptions due to the COVID-19 pandemic. The pandemic may also have influenced the performance of your child's school, district and the state. In alignment with the work of the Learning, Equity & Accelerated Pathways (LEAP) Task Force (<https://www.ride.ri.gov/nextgen/RIEAP/LEAP/LEAP%20Final%20Report>), RIDE has renewed its commitment to rebuilding Rhode Island's educational system post-pandemic, helping students get back up to speed, and offering greater access to enriching learning opportunities.

We thank you for your participation in these tests which helped you do this critical work to improve outcomes for students. While it is important to acknowledge the challenges of this past year, we must now focus on understanding your child's understanding of science knowledge and skills. We hope this report can help inform and empower you as you advocate for your child. You know your child best. For more information on how to understand the results, visit [www.RIDE.ri.gov/Assessment-Results](http://www.RIDE.ri.gov/Assessment-Results).

**The report shows:**

- Your child's score between and their achievement level
- Your child's achievement compared to school, district, and state averages
- How your child performed in the different areas of science measured by this assessment

**Your Child's Overall Results in Grade 8**

**Science**  
 Achievement Level

Score

(Score range: )

**What Do I Do Next?**  
 After reviewing this report, it is critical that you connect with your child's school by attending family-teacher conferences and discussing with your child's teachers your questions and concerns. Don't be afraid to speak up. Children whose families view the value of education are more likely to find it important, as well.

- School attendance matters, **every single day**. Missing just two days of school a month is chronically absent, so make it a priority to get your child to school on time daily.
- Establish daily reading routines, let your child see you read, and encourage your child to read for fun all year long.
- Get involved and stay connected to your child's school, however and whenever you can.
- Share your voice: Help improve your child's school by participating in SurveyMonkey every year.
- Start a conversation. Ask questions. Talk to your child about what they're learning and show an interest in the subjects that excite them.

Remember, you are your child's first teacher, and you play an important role in setting your child up for success.

**Did you know that establishing family routines can help your child succeed?**

Make a habit of setting up designated times for homework, reading, mealtimes, family conversations, bedtime, and leaving for school each day.

**Join us to improve education!**  
 Scan the QR code to access important information and resources for your family

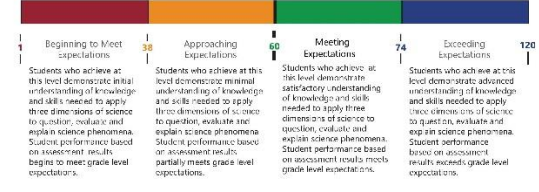
Name: Last Name, First Name  
 SASID: 999992345

Grade 8  
 Spring 2021  
 Computer-based Test

**Science**

Your Child's Achievement Level

Your Child's Score



The horizontal gray bar shows the grade's above shows the range of fully scores your child would receive if they took a test made in 1985. The score range for your child is between 82 and 71.

**'s Science Score**

's Science score is . This score is the average score of eighth graders in the school, district, and state.

**Achievement**  
 How your child performed compared to students in their school, district, and state.

Year	Your Child's Score	School	District	State
2021				

**How Did Your Student Perform in the Different Areas of Science?**

**Life Sciences**

Below Mastery | At Near Mastery | Above Mastery

**Physical Sciences**

Below Mastery | At Near Mastery | Above Mastery

**Earth and Space Sciences**

Below Mastery | At Near Mastery | Above Mastery

Example of a blank ISR, grade 8



# What do these assessment terms mean?

## Student Scale Score

- A student earns a scale score between 0 and 120 based on their performance on the test.

### The report shows:

- Your child's score between and and their achievement level
- Your child's achievement compared to school, district, and state averages
- How your child performed in the different areas of science measured by this assessment

### Your Child's Overall Results in Grade 8

**Science**  
Achievement Level

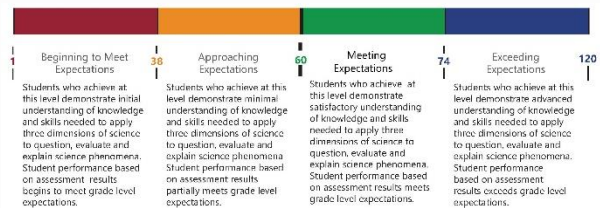
Score

(Score range: - )

- The score indicates how well the student meets the expectations for their grade band, and corresponds to a particular performance level.

## Achievement Level

- NGSA uses four performance levels to describe how well students meet the expectations for their grade level: Beginning to Meet Expectations, Approaching Expectations, Meeting Expectations, and Exceeding Expectations.



The horizontal gray bar shown in the graphics above shows the range of likely scores your child would receive if he or she took the test multiple times. The score range for your child is between and .

- Meeting Expectations means that students are able to demonstrate grade band expectations; while Exceeding Expectations means that students are showing mastery of the standards for their grade.

## Domain Performance Level

- Students receive a domain performance level that indicates their understanding of the knowledge and skills expected in that discipline for their grade band.
- The domain performance level and its explanation can be used to see where the student is succeeding and where they may need additional support to enhance specific content area knowledge and skills needed to master the science standards for their grade.

### How Did Your Student Perform in the Different Areas of Science?

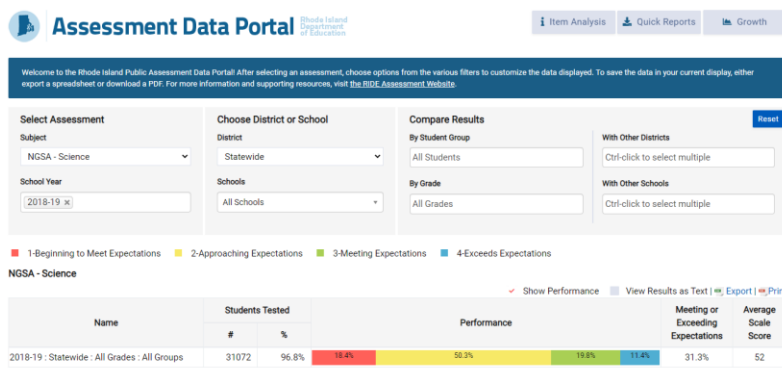




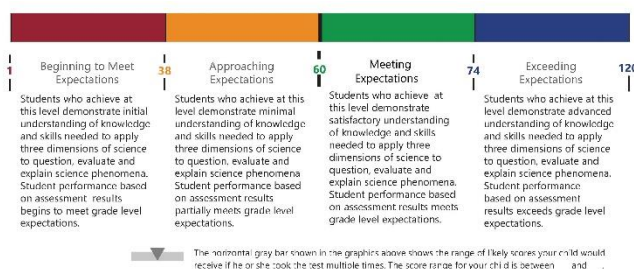
# How can NGSAs results be used?

NGSA is a valid and reliable measure of student performance and can help us understand how our schools are doing in preparing our students with the skills and knowledge they will need to be successful in postsecondary education and careers.

The aggregate results displayed on the [Assessment Data Portal](#) provide an indicator of each school's or district's performance. This can support discussions about where the school or district is doing well and where there is a need for improvement.



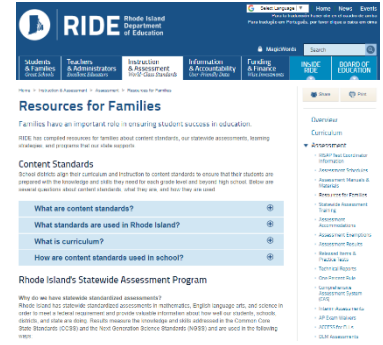
When reviewing your student's ISR, look closely at where your student's score falls within the achievement level. If your student's score is not Meeting Expectations or Exceeding Expectations, talk with your student's teacher about how you can work together to help your child learn the science knowledge and skills for their grade level.



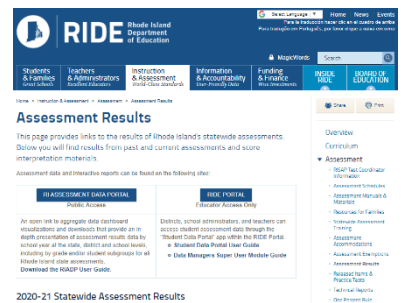
Domain performance levels and descriptions can be used – in conjunction with classroom assignments and assessments – to see where a student is succeeding and where they may need additional support to enhance specific skills needed to master grade-level standards.

# Where can I learn more about NGSA results?

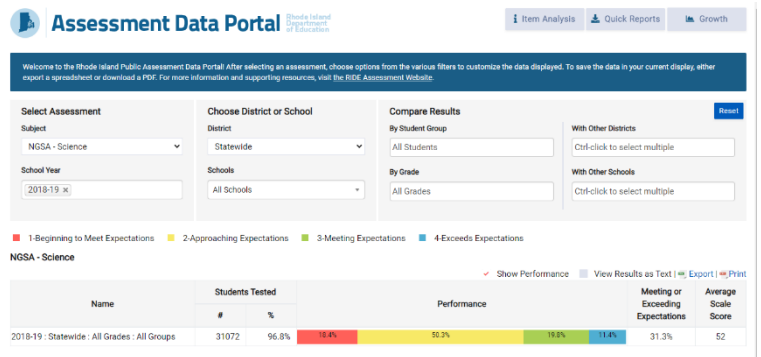
Scanning the QR code on your student's ISR will bring you to RIDE's Resources for Families page at [www.ride.ri.gov/Families](http://www.ride.ri.gov/Families). This page provides answers to frequently asked questions about content standards, curriculum, and RI's statewide assessments. It also includes resources about student growth percentiles, the NGSA ISRs translated into Spanish and Portuguese, and the NGSA ISR Guide for Families in the [www.ride.ri.gov/Assessment-Families](http://www.ride.ri.gov/Assessment-Families) section.



RIDE's Assessment Results page includes links to the Assessment Data Portal, as well as supporting materials for current and past assessment results ([www.ride.ri.gov/Assessment-Results](http://www.ride.ri.gov/Assessment-Results)).



The Assessment Data Portal ([www.ride.ri.gov/RIADP](http://www.ride.ri.gov/RIADP)) displays school and district performance for all state assessments.



The NGSA Portal provides access to practice tests and student resources on their families page at <https://ri.portal.cambiumast.com/families.html>.

