

**GRADE 3**

# Distance Learning Guide

*Our recommendations for adapting Mystery Science lessons for socially distant classrooms and online distance learning.*



We've assigned each lesson one of these labels:

## Ready to Teach

These lessons have activities that only need minor modifications to eliminate partner work or shared supplies. For these activities, you can have students work solo without preparing extra supplies.

## Adjust Supplies

These lessons also have activities that need small changes so students can work solo, but you'll need to adjust the supply quantities. We suggest how to adjust the supplies.

## Demo Activity

These lessons have activities that require coordinated partner work or messy materials, so we recommend demonstrating the activity for students. Students can make detailed observations.

## Substitute Activity

These lessons have activities that require specialized materials or adult help. We suggest an alternative activity to do instead.

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# GRADE 3 UNIT **Animals Through Time**

| View this unit <a href="#">here</a> .                                                                  | Teaching in the classroom                                                                                                                                                                                                                                                                                                                                                  | Teaching online                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Lesson 1</b><br><b>Ready to Teach</b><br><i>Where can you find whales in the desert?</i>            | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>No supply adjustments.</li> </ul>                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Send each student home with 3 stickers, the <i>Fossil Dig</i> template and the <i>Mystery Fossils</i> template (digital copies will not work).</li> <li>Students will also need a printed or digital version of the <i>Fossil Dig Questions</i>.</li> </ul>                                                                         |
| <b>Lesson 2</b><br><b>Ready to Teach</b><br><i>How do we know what dinosaurs looked like?</i>          | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>No supply adjustments.</li> </ul>                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Have students do the activity at home.</li> <li>Send each student home with a copy of the <i>What Do These Animals Eat</i> printout (or assign the digital version).</li> </ul>                                                                                                                                                     |
| <b>Lesson 3</b><br><b>Substitute Activity</b><br><i>Can you outrun a dinosaur?</i>                     | <ul style="list-style-type: none"> <li>Try this activity from the American Museum of Natural History called <a href="#">Be a Sleuth: How Dinosaurs Behaved</a>.</li> <li>Students work as “dinosaur detectives” to examine fossil footprints for clues about dinosaur behavior. (For a PDF version, click the <i>How Dinosaurs Behaved</i> link below the text)</li> </ul> | <ul style="list-style-type: none"> <li>Try this activity from the American Museum of Natural History called <a href="#">Be a Sleuth: How Dinosaurs Behaved</a>.</li> <li>Students work as “dinosaur detectives” to examine fossil footprints for clues about dinosaur behavior. (For a PDF version, click the <i>How Dinosaurs Behaved</i> link below the text)</li> </ul> |
| <b>Lesson 4</b><br><b>Ready to Teach</b><br><i>What kinds of animals might there be in the future?</i> | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>No supply adjustments.</li> </ul>                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Have students do the activity at home.</li> <li>Send each student home with a copy of the <i>Designer Dogs</i> printout (or assign the digital version).</li> </ul>                                                                                                                                                                 |

# GRADE 3 UNIT **Animals Through Time**

| View this unit <a href="#">here</a> .                                                                                |                                                                                                                                                                                                                                                                                                                                                     | Teaching in the classroom                                                                                                                                                                                                                                                                                                                           | Teaching online |
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| <b>Lesson 5</b><br><div>Substitute Activity</div> <p><i>Can selection happen without people?</i></p>                 | <ul style="list-style-type: none"><li>• We suggest you lead your class through <a href="#">an online game</a> where you become a hungry bird, looking for moths to eat.</li><li>• This game is based on research that provided some of the first evidence for natural selection. Encourage students to continue playing the game at home.</li></ul> | <ul style="list-style-type: none"><li>• We suggest you lead your class through <a href="#">an online game</a> where you become a hungry bird, looking for moths to eat.</li><li>• This game is based on research that provided some of the first evidence for natural selection. Encourage students to continue playing the game at home.</li></ul> |                 |
| <b>Lesson 6</b><br><div>Ready to Teach</div> <p><i>Why do dogs wag their tails?</i></p>                              | <ul style="list-style-type: none"><li>• Have students do the activity solo.</li><li>• No supply adjustments.</li></ul>                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>• Have students do the activity at home.</li><li>• Send each student home with a copy of the <i>Field Journal</i> printout (or assign the digital version).</li></ul>                                                                                                                                         |                 |
| <b>Lesson 7</b><br><div>Ready to Teach</div> <p><i>What’s the best way to get rid of mosquitoes?</i></p>             | <ul style="list-style-type: none"><li>• Have students do the activity solo.</li><li>• No supply adjustments.</li></ul>                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>• Have students do the activity at home.</li><li>• Send each student home with a copy of the <i>Bug Off!</i> printouts (or assign the digital versions).</li></ul>                                                                                                                                            |                 |
| <b>Lesson 8</b><br><div>Ready to Teach</div> <p><i>How long can people (and animals) survive in outer space?</i></p> | <ul style="list-style-type: none"><li>• Students need a partner to help them count push-ups and steps, but this can be done at a safe distance from one another.</li><li>• You can skip the height part of the worksheet to maintain social distancing.</li><li>• No supply adjustments needed.</li></ul>                                           | <ul style="list-style-type: none"><li>• Students will need someone at home to help them count push-ups, steps, and measure their height.</li><li>• Send each student home with a copy of the <i>Traits in Space</i> printout (or assign the digital version).</li></ul>                                                                             |                 |

# GRADE 3 UNIT Power of Flowers

| View this unit <a href="#">here</a> .                                                           |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                 | Teaching in the classroom                                                                                                                                                                                                                                                                                                      | Teaching online                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Lesson 1</b><br>Adjust Supplies<br><i>Why do plants grow flowers?</i>                        | <ul style="list-style-type: none"> <li>You will need to prepare the “sticky stigma” loops for each student for Step 11.</li> <li>Each student can put pollen in their own flower.</li> <li>Place flowers around the classroom so that students can move around (maintaining distance) while they pollinate flowers.</li> </ul> | <ul style="list-style-type: none"> <li>Students at home will make 2 flowers. They need 2 printed copies of the <i>Make a Flower</i> template, 2 sticker labels, 3 pipe cleaners and small amounts of <i>Pollen 1</i> and <i>Pollen 2</i>.</li> <li>Show students how to create the “sticky stigma” on their own by looping the sticker label around one finger, sticky side out.</li> </ul> |
| <b>Lesson 2</b><br>Demo Activity<br><i>Why do plants give us fruit?</i>                         | <ul style="list-style-type: none"> <li>Set up the activity and demonstrate for students.</li> <li>Provide each student with the <i>Science Fruit or Science Vegetable</i> printout so that they can record their observations.</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>Set up the activity and demo over video conference with your students so they can make observations.</li> <li>Send each student home with the <i>Science Fruit or Science Vegetable</i> printout (or assign the digital version).</li> </ul>                                                                                                         |
| <b>Lesson 3</b><br>Substitute Activity<br><i>Why are some apples red and some green?</i>        | <ul style="list-style-type: none"> <li>Ask each student to take a close look at the core of an apple.</li> <li>Ask them to draw the apple core and write down questions about what they notice inside the apple. Can they find the seeds?</li> </ul>                                                                           | <ul style="list-style-type: none"> <li>If students have apples at home, ask them to take a close look at the core. Alternatively, you can provide them with photos.</li> <li>Ask students to draw the apple core and write down questions about what they notice inside the apple. Can they find the seeds?</li> </ul>                                                                      |
| <b>Lesson 4</b><br>Adjust Supplies<br><i>How could you make the biggest fruit in the world?</i> | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>You will need 2x as many copies of the <i>Fruit Cards</i> as the supply list indicates.</li> </ul>                                                                                                                                         | <ul style="list-style-type: none"> <li>Have students do the activity at home.</li> <li>Send each student home with a printed set of <i>Fruit Cards</i>. Students will also need the <i>Odd One Out</i> printout (or assign the digital version).</li> </ul>                                                                                                                                 |

# GRADE 3 UNIT Stormy Skies

| View this unit <a href="#">here</a> .                                                                   | Teaching in the classroom                                                                                                                                                                                                  | Teaching online                                                                                                                                                                                                                                                                                                             |
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| <b>Lesson 1</b><br>Adjust Supplies<br><i>Where do clouds come from?</i>                                 | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>You will need to pour warm water into each student's cup.</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>Send each student home with the <i>Gas Trap Experiment</i> printout. Students will need to cut out part of the printout, so a digital version will not work.</li> <li>Adult supervision is advised when students are working with the warm water.</li> </ul>                         |
| <b>Lesson 2</b><br>Ready to Teach<br><i>How can we predict when it's going to storm?</i>                | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>No supply adjustments.</li> </ul>                                                                                                      | <ul style="list-style-type: none"> <li>Have students do the activity at home.</li> <li>Send each student home with the <i>Storm Spotter's Guide</i> and <i>Will It Storm?</i> printouts (or assign the digital versions).</li> </ul>                                                                                        |
| <b>Lesson 3</b><br>Adjust Supplies<br><i>Why are some places always hot?</i>                            | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>Give each student one of the area maps. Have one completed map ready to discuss with students.</li> </ul>                              | <ul style="list-style-type: none"> <li>Send each student home with one of the maps (a digital version will not work).</li> <li>Then share a complete map over video conference with your students so they can make observations.</li> </ul>                                                                                 |
| <b>Lesson 4</b><br>Adjust Supplies<br><i>How can you keep a house from blowing away in a windstorm?</i> | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>Look at the supply list for your class size and double the number of paper clips, stickers, toothpicks and pieces of paper.</li> </ul> | <ul style="list-style-type: none"> <li>Send each student home with 1 piece of paper, 6 toothpicks, 5 paper clips, 4 stickers, the <i>Paper House Model</i> template and the <i>Windmaker</i> template.</li> <li>Students also need the <i>Design a Windproof House</i> printout (or assign the digital version).</li> </ul> |

# GRADE 3 UNIT Invisible Forces

| View this unit <a href="#">here</a> .                                                                                | Teaching in the classroom                                                                                                                                                                                                                                                                             | Teaching online                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>Lesson 1</b><br><div>Ready to Teach</div> <p><i>How could you win a tug-of-war against a bunch of adults?</i></p> | <ul style="list-style-type: none"> <li>Have students do the activity solo. Note: In Step 11, they will need to hold down their <i>Hopper Popper</i> while simultaneously placing the ruler on top of it.</li> <li>No supply adjustments.</li> </ul>                                                   | <ul style="list-style-type: none"> <li>Send each student home with a piece of chipboard (3"x6"), 2 rubber bands, and the <i>Launch Pad</i> template.</li> <li>They will also need the <i>High Hop Scorecard</i> printout (or assign the digital version).</li> </ul>                                                                                                                                  |
| <b>Lesson 2</b><br><div>Adjust Supplies</div> <p><i>What makes bridges so strong?</i></p>                            | <ul style="list-style-type: none"> <li>Have students do the activity solo.</li> <li>You will need the <i>Bridge Challenge</i> printout and 2x the number of books, sheets of paper and pennies as listed.</li> </ul>                                                                                  | <ul style="list-style-type: none"> <li>Send each student home with the <i>Bridge Challenge</i> printout (or assign the digital version).</li> <li>Students can use pennies, paper clips, beans, rice or other items to serve as weights in the experiment.</li> </ul>                                                                                                                                 |
| <b>Lesson 3</b><br><div>Substitute Activity</div> <p><i>How can you go faster down a slide?</i></p>                  | <ul style="list-style-type: none"> <li>Show students <a href="#">this video</a> and discuss as a class.</li> <li>Ask students: Which block will slide first? Which will slide last? Why do you think that?</li> <li>To see what happens, play <a href="#">this video</a>.</li> </ul>                  | <ul style="list-style-type: none"> <li>Show students <a href="#">this video</a> and discuss as a class.</li> <li>Ask students: Which block will slide first? Which will slide last? Why do you think that?</li> <li>To see what happens, play <a href="#">this video</a>.</li> </ul>                                                                                                                  |
| <b>Lesson 4</b><br><div>Demo Activity</div> <p><i>What can magnets do?</i></p>                                       | <ul style="list-style-type: none"> <li>Set up stations with the magnets, other materials and the <i>Ideas for Magnet Experiments</i> printout.</li> <li>Give each student the <i>Magnets Are Weird</i> printout and let them explore a station.</li> <li>Sanitize stations after each use.</li> </ul> | <ul style="list-style-type: none"> <li>Set up the activity and demo over video conference while students observe.</li> <li>If students have a ring, bar or horseshoe magnet, they can explore items at home. Note: Refrigerator magnets may behave differently. Send home the <i>Magnets are Weird</i> printout (or assign the digital version) so students can record their observations.</li> </ul> |

# GRADE 3 UNIT Invisible Forces

View this unit [here](#).

## Teaching in the classroom

## Teaching online

### Lesson 5

#### Ready to Teach

*How can you unlock a door using a magnet?*

- Have students do the activity solo.
- No supply adjustments.

- Have students do the activity at home.
- Send each student home with 1 paper clip, 1 paper fastener, 1 Post-it, 2 index cards, 6 dot stickers, a sheet of cardstock and a magnet.

## GRADE 3

# Guide FAQs

*Additional recommendations for using this guide to adapt Mystery Science for socially distant classrooms and online distance learning.*



### **Where should I start?**

Animals Through Time is the easiest Grade 3 unit to adapt for distance learning, so we recommend starting with that unit.

### **What does it mean when the guide says students can work “solo”?**

Our lessons are designed to get students talking and working together, but group work and sharing supplies is not advised at present. So, when we mention students working “solo,” we mean that students can work independently at home or in the classroom, without partners or sharing supplies.

### **Where can I find all of the printouts for the Grade 3 units?**

To easily make packets of printouts for students, you can find all the printouts for each grade level [here](#).

### **What if I skip some of the lessons in a unit?**

If you omit lessons, we recommend reviewing the [Grade 3 Planning Guide](#) to see the concepts and standards covered in those lessons.

### **Will students need any additional supplies for the activities?**

This guide lists the specialized supplies students need for each activity, but general classroom supplies (such as pencils, scissors, crayons, markers, and rulers) are not listed. We suggest checking the lesson supply lists to know which general supplies students will need.

## GRADE 3

# Using Your Mystery Pack

*Mystery Packs are supply kits that contain all the materials needed to teach Mystery Science for the entire year. Each box contains supplies for a class of 30 students.*



### **Does my Mystery Pack contain enough supplies to send home?**

For activities labeled *Ready to Teach*, there are enough supplies in your box for each student to have their own materials. For activities labeled *Adjust Supplies*, you'll need some extra materials so that students can work on their own without sharing supplies.

### **What if I can't send supplies home to students?**

If students don't have access to supplies, you can turn some activities into demonstrations and share via video conference. Students can participate by recording their observations.

### **What if I don't use all of my supplies this year?**

Don't worry! You can still use your Mystery Pack next school year. You'll just need to refill any supplies that you do use this year.

### **I don't have a Mystery Pack. Can I still order one?**

Yes! Packs are still available for purchase. You can learn more about Mystery Packs and how to get them [here](#).

