

Use the HUSD Science Kits for these hands-on mystery science lessons.



Kindergarten

- Plants and animal Secrets

- [Lesson 5 - Plant Need: Water & Light](#)

- Use Radish seeds in bag 5, have students collect soil from a backyard or park prior to lesson. As an alternative to this lesson check out [Germinate a Bean](#) from our lesson library.

- Force Olympics

- [Lesson 3 - Motion Speed & Strength](#)

- Use tape from bag 1
 - Large cups from bag 1
 - Binder clips from bag 3
 - String from bag 4
 - measuring tape from bag 5

- [Lesson 4- Speed & Direction of Force](#)

- Measuring tape from bag 5
 - Tape from bag 1
 - Cups from bag 1
 - Rubber ball from bag 1

- [Lesson 5: Direction of Motion & Engineering](#)

- Cups from bag 1
 - Binder clips from bag 3
 - Tape from bag 1
 - Ping pong ball from bag 1



1st Grade

● Plant & Animal Superpowers

○ [Lesson 5: Survival & Engineering](#)

- Cups from bag 1
- Pipe cleaners from bag 6
- Straws from bag 5
- Tape from bag 1
- Playdough (not in kit), students can fill their cups with dirt from outside.
 - Alternatively you or the students can make your own playdough, [here's a link](#) for an easy recipe.

● Lights and Sounds

○ [Lesson 1 Sounds & Vibrations](#)

- Replace ruler with popsicle stick from bag 4

○ [Lesson 3: Light, Materials, Transparent and Opaque](#)

- Opaque Materials
 - Paper label from any bag
 - White cup from bag 1
 - Domino from bag 6
 - Spoon from bag 5
 - Tin Foil from bag 3
- Transparent materials
 - Any Ziplock bag
 - Petri dish from bag 2
 - Magnifying glass from bag 5
- Translucent materials
 - Cough medicine cup from bag 2
 - Consider stacking all three together to make less transparent
 - Pipette from bag 2
 - Straws from bag 5
- Consider letting students find other opaque, transparent and translucent materials in their kits and around their houses. As an alternative lesson check out [Light and Shadow](#) from our lesson library.



2nd Grade

● Animal Adventures

○ [Lesson 3: Biodiversity & Engineering](#)

- Aluminum foil from bag 3
- Tape from bag 1 (replaces dot stickers)
- Cups from bag 1
- Pipe cleaners from bag 6
- Binder clips from bag 3
- Replace skewers with popsicle sticks from bag 4
- Let students be creative in using other materials from around the kits and around their home. Suggestions might include
 - String from bag 4
 - Rubber Bands from bag 4
 - Straws from bag 5

● [Plant Adventures](#)

- Use Radish seeds in bag 5, or beans in bag 6 for the plant growing lessons have students collect soil from a backyard or park prior to lesson. Consider supplementing or replacing these lessons with our [Germinate a Seed](#) lesson from our lesson library.
 - [Lesson 2: Water, Sunlight and Plant Growth](#)
 - Tin foil from bag 3 can be used to make a cup dark.

● Material Magic

○ [Lesson 1: Materials, Properties and Engineering](#)

- Aluminum Foil from bag 3
- Binder Clip from bag 3
- Cups from bag 1
- Plastic spoon from bag 5
- String from bag 4
- The following materials are recommended by Mystery Science and are not in the kit. Any of these can be substituted by other similar materials or fabrics which you might encourage students to search for around their home.
 - Paper lunch bag or construction paper (not in kit)
 - Paper towel, tissue or toilet paper (not in kit)
 - Paper plate (not in kit)



- Lesson 5: Materials, Properties & Engineering
 - Measuring Tape from bag 5
 - Paper Clips from Bag 3
 - Scissors (not in Kit)
 - 20 index cards (Not in kit)
 - Students can cut construction paper into cards
 - Books (not in kit)



3rd Grade

● Stormy Skies

○ [Lesson 1: Water Cycle and Phases of Matter](#)

- Large Plastic Cup from **bag 1**
- Petri dish from **bag 2** (Use as lid)
- Scissors (not in kit)
- Warm water (not in kit)

○ [Lesson 4: Natural Hazards and Engineering](#)

- Tape from **bag 1**
- Paper clips from **bag 3**
- Mystery science recommends using toothpicks which are not in the kit, but these can be used instead of toothpicks:
 - popsicle sticks from **bag 4**
 - straws from **bag 5**
 - pipe cleaners from **bag 6**
 - straightened out paper clips from **bag 3**
- You'll need to provide students with the worksheet and paper
- Scissors (not in kit)

● Invisible Forces

○ [Lesson 4: Magnets and Forces](#)

- Magnets from **bag 4**
- Non magnetic items - **Bag 4** contains all non magnetic items (except the magnets)
- Magnetic items - Mostly contained in **bag 3** (including paper clips, pennies, washers, binder clips)
- Paper clips from **bag 3**
- String from **bag 4**
- Pencils may be too large to pass the ring magnets through, so we recommend using straws from **bag 5**
- Index card or construction paper (not in kit)
- Consider supplementing your magnet unit with [this lesson](#) from our lesson library.



4th Grade

● Human Machine

○ [Lesson 1: Muscles & Skeleton](#)

- String from bag bag 4
- Tape from bag 1 (instead of sticky dots)
- Paper clips from bag 3
- You'll need to provide students with the worksheet and paper
- Scissors (not in kit)
- Glue sticks (not in kit)
- Index card (not in kit)

● The Birth of Rocks

○ [Lesson 2: Volcanoes & Rock Cycle](#)

- Clear plastic cups from bag 1
- Plastic spoons from bag 5
- Straws from bag 5
- Medicine cup from bag 2
- Flour (not in kit)
- Water (not in kit)
- Use this ratio for at home learning:
 - 3 medicine cups= 6 tablespoons of flour
 - 2.5 medicine cups= 5 tablespoons of water
- You'll need to provide the worksheet

● Waves of Sound

○ [Lesson 1: Sound, Vibration, & Engineering](#)

- Cups from bag 1
- String from bag 4
- Paper clips from bag 3
- Students will need to use their paper clips to punch holes in the plastic cups

○ [Lesson 2: Sound & Vibrations](#)

- Balloons from bag 4
- Tape from bag 1
- Binder clips from bag 3
- A friend/family member (not in kit) =)



● Energizing Everything

○ Lesson 2: Collisions & Energy Transfer

- Tape from bag 1
- Cup from bag 1 (use instead of alligator)
- Paperclips from bag 3
- Marbles from bag 6
- Measuring tape from bag 5
- You'll need to provide the worksheets
- Scissors (not in kit)

○ Lesson 4: Energy Transfer & Engineering

- Tape from bag 1
- Cup from bag 1
- Paperclips from bag 3
- Marbles from bag 6
- Rubber bands from bag 4
- You'll need to provide the worksheets
- Scissors (not in kit)
- Ruler (not in kit)
- Marker (not in kit)

○ Lesson 5: Energy Transfer and Engineering Part 2

- Tape from bag 1
- Cup from bag 1
- Paperclips from bag 3
- Marbles from bag 6
- Materials from the last lesson
- You'll need to provide the worksheets
- Scissors (not in kit)
- Index cards (not in kit)
- Marker (not in kit)
- Other items from kit (especially dominoes from from bag 6)



5th Grade

- Web of Life

- [Lesson 2: Plant Needs: Air & Water](#)

- Balloons from bag 4
 - Binder clips from bag 3
 - Paper clips from bag 3
 - String from bag 4
 - Ruler (not in kit)
 - Yardstick (not in kit)
 - Books (not in kit)

- Chemical Magic

- The science kit does not contain all the necessary materials to complete the chemical magic unit. We suggest utilizing the [Fizzy Science](#) lesson from our lesson library to meet the same learning objectives.



Mini Lessons

- What is the biggest spider in the world?
 - String from bag 4
 - Tape from bag 1 (use instead of sticker labels and ruler)
 - You will need to provide the worksheet
 - Crayons (optional, not in kit)
- How do scientists know so much?
 - Magnifying glass from bag 5
 - You will need to provide the worksheet
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