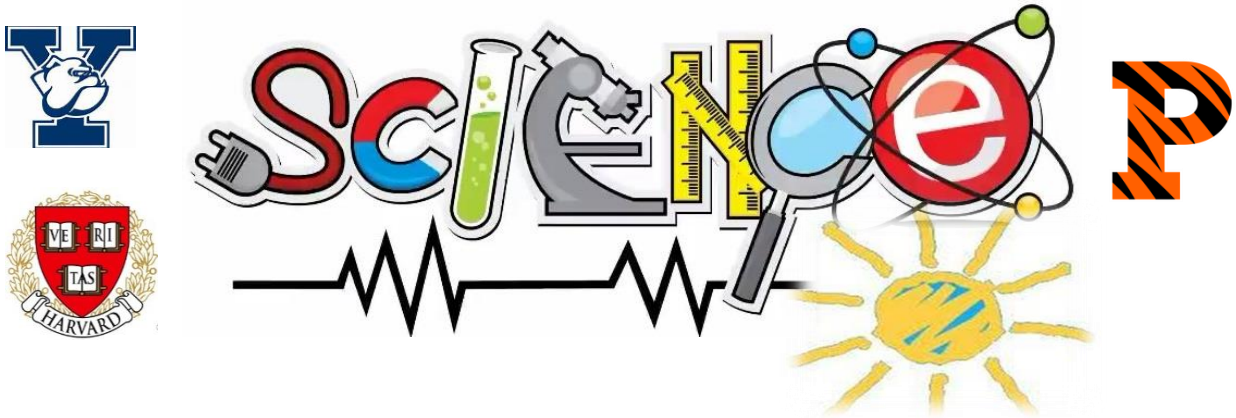
Name _____

3rd Grade Science Remote Learning Packet

Week 8



Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

_____ _____

(Parent Signature) (Date)

Parents please note that all academic are also available on our website at www.brighterchoice.org under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.

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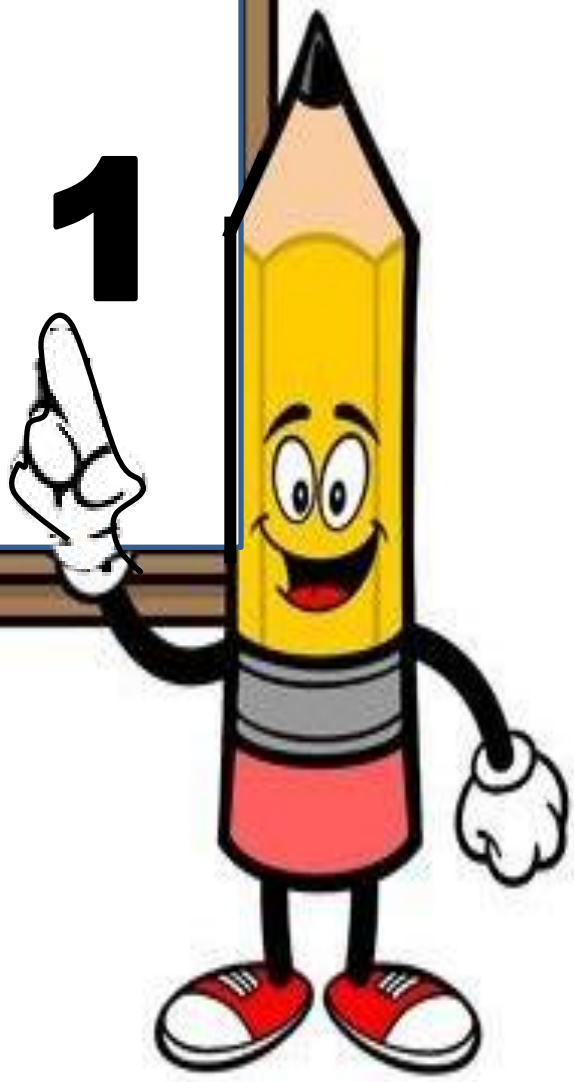
Day # 1



Name: _____Week 8 Day 1 Date: _____

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Guided Notes: How can you go faster down a slide?

Vocabulary: Fill in the blanks with the red word.

1. **Force:** to cause something to happen using _____ or _____
2. **Steep:** almost straight up and down; very _____
3. **Friction:** the act of rubbing one thing against another; a _____ that causes a moving object to slow down when it is touching another object
4. **Gravity:** the natural _____ that tends to cause physical things to move towards each other: the force that causes things to fall towards the Earth

Video: Watch the video in silence. Take notes during the video portion. Write in complete sentences for the questions. Remember to think and then write. Also, sit in STAR and wait to be asked to raise your hand to be called upon.

Exploration 1: *Notes-*

_____

_____

_____

_____

Exploration 2: *Discuss-* You can't make the slide steeper but you want to go down the slide faster. What else could you change? (Think of your favorite slides.)

_____

_____

_____

_____

_____

Exploration 3: *Notes-*

_____

_____

_____

_____

Exploration 4: *Discuss-* Materials that have low friction are slippery. Can you name some materials with low friction?

_____

_____

_____

_____

_____

Exit Ticket: Which idea from your brainstorming time are you the most excited about to try tomorrow during our activity? Why?

_____

_____

_____

_____

_____

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Day # 2

Name: _____Week 8 Day 2 Date: _____

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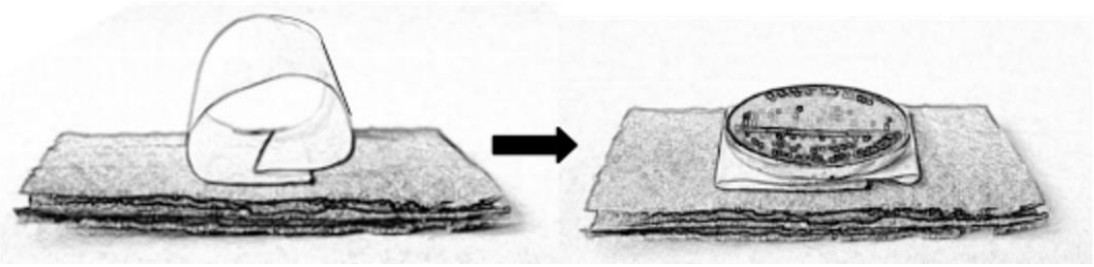
Try This!

Make some sliders — Construction Tips

- To get a slider moving, add some weight to the material you're testing. We suggest using pennies. How many pennies you use on each slider is up to you.



You can use a loop of tape to add a penny, like this.

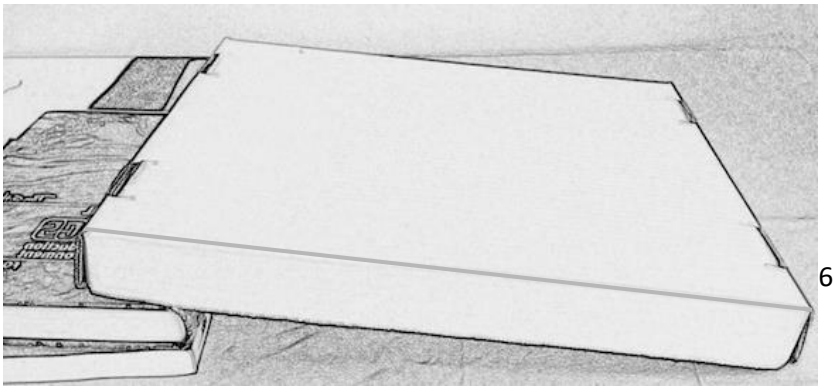
Or you can put a strip of tape over the pennies like this.

- You're testing the material, not the tape you use to hold the weight on. Make sure you don't cover the bottom of the slider with tape.

Make a slide

To make your cardboard into a slide, set one end on a stack of books and the other on the table.

You can change how steep a slide is by adding more books.



Experiment with your sliders and write down what you see.

1. What happens if I put all my sliders on the slide when it's flat, and then slowly raise one end of the slide?

Answer: _____

2. What happens if I race a cardboard slider with 5 pennies against a cardboard slider with no pennies at all?

Answer: _____

Come up with at least 3 questions and answers of your own.

3. What happens if I _____

Answer: _____

4. What happens if I _____

Answer: _____

5. What happens if I _____

Answer: _____

(If you have more questions, write on them on the back of this page.)

If you get stuck, think about:

- how many pennies will you put on each slider?
- how you will start the sliders moving? (by setting them on a steep slide? by raising the slide?)
- how steep you will make your slide?
- how many sliders you will test at a time?
- how will you decide which slider has the least friction?

Friction Investigation Worksheet

1. Experiment to find the answer to this question: Which materials have the MOST friction and which materials have the LEAST friction?

2. Method:

We built sliders like this: (draw a picture of a slider)	**We set up each trial like this:** (draw your slide)

3. Describe what you will do in each trial:

- How will you start your sliders sliding? _____

  _____

- How many sliders will you test together? _____
- How will you decide which slider has the least friction? _____

  _____

- How will you decide which has the most friction? _____

  _____

Friction Investigation Worksheet

4. Data Collection:

Complete four trials of your experiment.

Trials	Observations / Measurements
In each box below, write down the materials you tested.	Write down observations or measurements for each trial. For example, *"We observed that the cardboard began sliding first.."*
Trial 1:	
Trial 2:	
Trial 3:	
Trial 4:	

Friction Investigation Worksheet

5. Claims and Evidence

Our claim: We think _____ has the **most** friction.

(material)

Evidence that supports this claim: _____

_____

Our claim: We think _____ has the **least** friction.

(material)

Evidence that supports this claim: _____

_____

Our claim: We think _____ (list materials)

have more friction than _____ (list materials).

Evidence that supports this claim: _____

_____

6. Additional Investigation

Next time, we want to try _____

_____

because_____

_____

Name: _____Week 8 Day 2 Date: _____

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End of Mystery Assessment

1. Imagine that you used a microscope to look really closely at the following surfaces. Draw what you think you'd see:

Material	**Close-Up Drawing of Surface**
stainless steel	
wood	
sand paper	

2. Imagine a student sliding down a slide. If the friction force is stronger than the force of gravity, what will happen? Why?

a. Friction force cannot be stronger than the force of gravity.
b. The student will continue to slide down the slide
c. The student will stop because of the friction force.
d. The student will continue because of gravity.

3. What are some things you could do to go down a slide faster?

a. I could make the slide dry.
b. I could make the slide steeper or make it wet and slippery.
c. I could make the slide lower.
d. There is nothing I can do.

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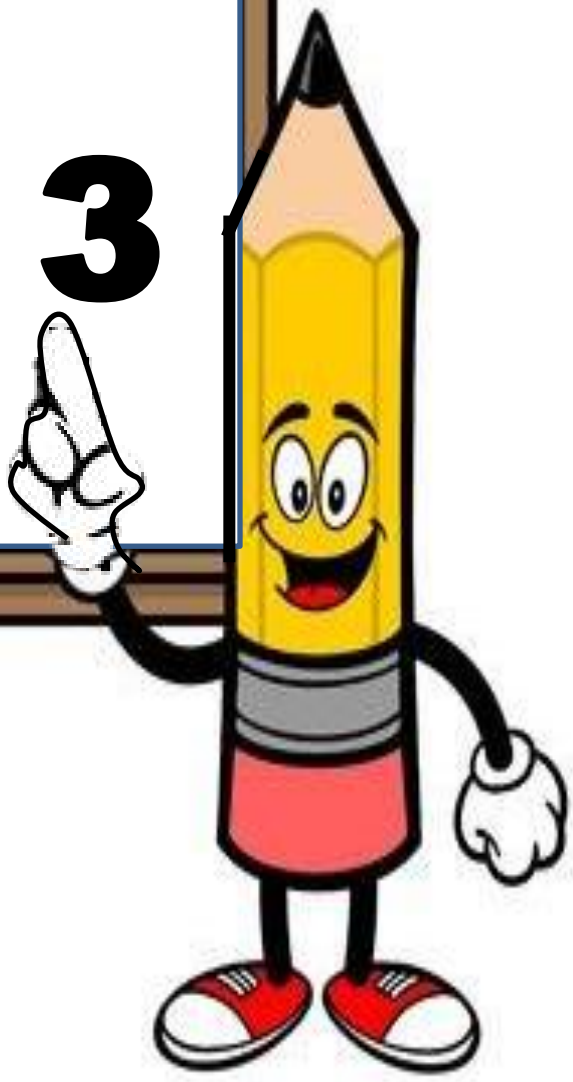
Day # 3



Name: _____Week 8 Day 3 Date: _____

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Guided Notes: What can magnets do?

The Question: *Answer the question in a complete sentence. What do you think, what can magnets do?*

_____
_____
_____

Today we start with the activity. Enjoy and be curious!

EXIT TICKET: *Answer the questions in complete sentences.*

1. What are some of the things you observed? _____
   _____
   _____
   _____
2. Was there anything that surprised you? _____
   _____
3. Why did that surprise you? _____
   _____
   _____
   _____
4. What are two or three questions you have about magnets that no one in class knows the answer to?
   a. _____
      _____
   b. _____
      _____
   c. _____
      _____
5. Think of at least one experiment that would help answer your questions. _____
   _____
   _____
   _____

Day 2: Vocabulary and Exploration!

Vocabulary: *Fill in the blank with the missing word. The word is red on the PowerPoint presentation.*

1. **Magnets:** a piece of rock or a piece of metal that can _____ certain types of metal toward itself
2. **Magnetism:** the _____ of _____
3. **Magnetize:** the physical property of being magnetic; the _____ that _____ a substance _____ (temporarily or permanently)
4. **Iron:** a _____ type of _____ that is very common, occurs naturally in blood, and is used to make steel and in many products; a metal that is naturally _____

Video: *During the video, meet the expectation of all sounds off, tracking the screen, and actively listening. When it says NOTES, please keep notes that will help you answer the question, what can magnets do. When is says DISCUSS, first take a moment to think about your answer; then, write it down. I will ask for hands when I am ready for you to answer the question aloud as a group.*

Exploration 4: *Notes-*_____
_____
_____
_____

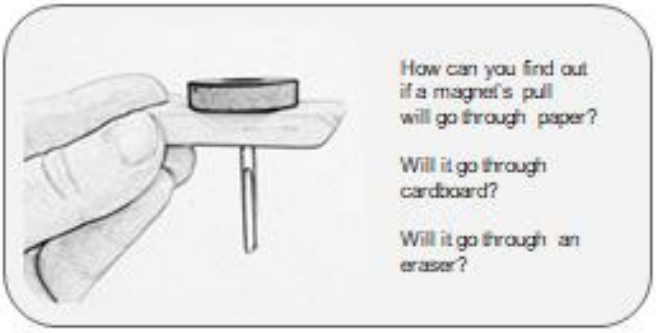
Exploration 5: *DEMONSTRATION*-What as I do a demonstration with paperclips and a magnet.
What happened? _____
_____
Does a paperclip STAY that way, or does it stop being a magnet? _____
_____
_____

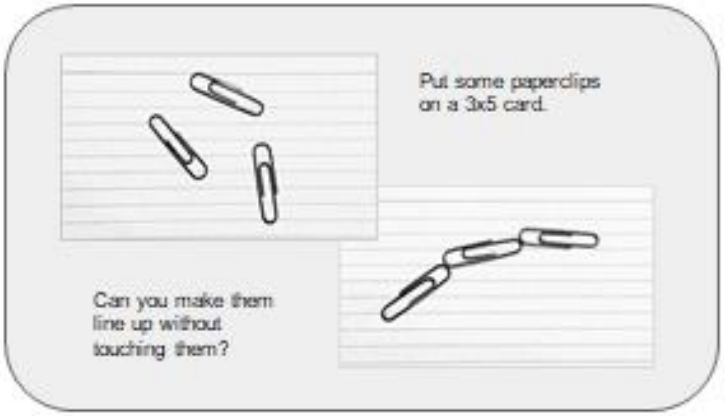
Exploration 6: *Notes-*_____
_____
_____
_____

Exploration 7: *Discuss*-What do you think you could do with magnets that would be interesting? _____
_____
_____
_____

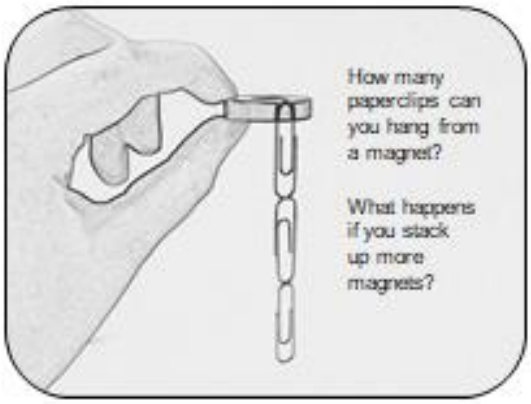
EXIT TICKET: During the experiment and the exploration, in your opinion, what was the most fascinating thing the magnet did? _____
_____
_____
_____

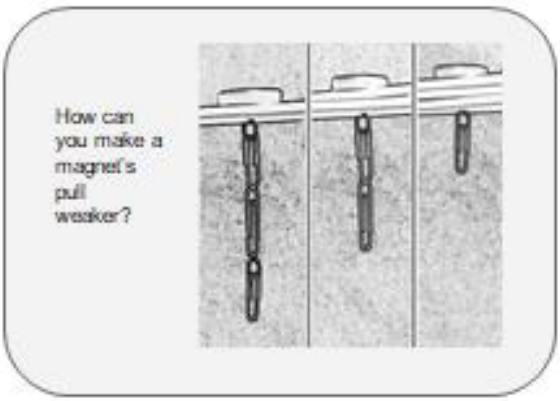
Ideas for Experimenters





More ideas





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Magnets Are Weird

Questions:	My drawing of what I tried:	What happened:
1. Will a magnet's pull go through paper? Will it go through cardboard? Other materials?		_____ _____ _____ _____ _____
2. Can you make a paperclip float? Can you make a magnet float?		_____ _____ _____ _____ _____
3. Write your own question:		_____ _____ _____ _____ _____