

# Pre-Level I Physics

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Week 1

Chapter 1. WHAT IS PHYSICS?



CONTENT

DAY 1

Read Chapter 1 Sections 1.1-1.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 1: Falling objects. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 5 and discuss the word "observation." Ask your child where we get words and what they think the word "observation" means.

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about atoms, or what things are made of. Read the Summary at the end of the chapter.

NOTES

Week **2**Chapter **1. WHAT IS PHYSICS?****CONTENT****DAY 1**

Pick one section of Chapter 1 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.

**EXPERIMENT****DAY 2**

Discuss the results from Experiment 1. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.

**CONNECTIONS****DAY 3**

Ask your child about the history of physics. When did the science we call “physics” start? [This is an open inquiry exercise. Use this time to explore.]

**DAY 4**

Have your student draw “gravity.” What does “gravity” look like? [This is an open inquiry exercise. Use this time to explore.]

**REVIEW****DAY 5**

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 1.

**NOTES**

Week 3

Chapter 2. PUSH AND PULL



CONTENT

DAY 1

Read Chapter 2 Sections 2.1-2.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 2: Get to work. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Look at page 9 and discuss the word "energy." Ask your child where we get words and what they think the word "energy" means. [This is open inquiry; use this opportunity to explore]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about molecules, or how atoms form molecules. Read the Summary at the end of the chapter.

NOTES

Week 4

Chapter 2. PUSH AND PULL



CONTENT

DAY 1

Pick one section of Chapter 2 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 2. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about how we discovered force, energy, and work. Did we discover these concepts before we discovered math? [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your student draw “force.” What do they think “force” looks like? [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 2.

NOTES

Week 5

Chapter 3. KINDS OF ENERGY



CONTENT

DAY 1

Read Chapter 3 Sections 3.1-3.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 3: Moving energy in a toy car. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 20 and discuss the word "kinetic." Ask your child where they think the word "kinetic" comes from. [You can look up the word "kinetic" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how molecules react with atoms and other molecules. Read the Summary at the end of the chapter.

NOTES

Week 6

Chapter 3. KINDS OF ENERGY



CONTENT

DAY 1

Pick one section of Chapter 3 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 3. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about how we know about “stored energy.” Who do they think discovered “stored energy?” [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child draw “stored energy.”



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 3.

NOTES

Week 7

Chapter 4. WHEN THINGS MOVE



CONTENT

DAY 1

Read Chapter 4 Sections 4.1-4.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 4: Rolling marbles. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 24 and discuss the word "inertia." Ask your child where they think the word "inertia" comes from. [You can look up the word "inertia" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about acids and bases. Read the Summary at the end of the chapter.

NOTES

Week 8

Chapter 4. WHEN THINGS MOVE



CONTENT

DAY 1

Pick one section of Chapter 4 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 4. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about how we found out about inertia. Who discovered inertia? How do we know inertia exists? [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child draw "inertia." [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 4.

NOTES

Week 9

Chapter 5. CHEMICAL ENERGY



CONTENT

DAY 1

Read Chapter 5 Sections 5.1-5.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 5: Lemon energy. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 40 and discuss the word "battery." Ask your child where they think the word "battery" comes from. [You can look up the word "battery" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week 10

Chapter 5. GROWING A PLANT



CONTENT

DAY 1

Pick one section of Chapter 5 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 5. If the seedlings are still growing make observations and record the results. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about the discovery of chemical energy. Who discovered chemical energy and when? [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child draw “chemical energy.” [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 5.

NOTES

Week 11

Chapter 6. ELECTRICITY



CONTENT

DAY 1

Read Chapter 6 Sections 6.1-6.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 6: Sticky balloons. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 37 and discuss the word "electricity." Ask your child where they think the word "electricity" comes from. [You can look up the word "electricity" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week 12

Chapter 6. ELECTRICITY



CONTENT

DAY 1

Pick one section of Chapter 6 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 6. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about how we know about electricity. Who discovered electricity? When was electricity discovered. [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child draw "electricity." [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 6.

NOTES

Week 13

Chapter 7. MOVING ELECTRONS



CONTENT

DAY 1

Read Chapter 7 Sections 7.1-7.4 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 7: Moving electrons. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 44 and discuss the word "conduct." Ask your child where they think the word "conduct" comes from. [You can look up the word "conduct" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week **14**Chapter **7. MOVING ELECTRONS****CONTENT****DAY 1**

Pick one section of Chapter 7 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.

**EXPERIMENT****DAY 2**

Discuss the results from Experiment 7. Repeat the experiment with items your child chooses. This is open inquiry and will help your child explore observations.

**CONNECTIONS****DAY 3**

Ask your child about who discovered that electrons move. [This is open inquiry; use this opportunity to explore.]

**DAY 4**

Have your child draw “moving electrons.” [This is open inquiry; use this opportunity to explore.]

**REVIEW****DAY 5**

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 7.

NOTES

Week 15

Chapter 8. MAGNETS



CONTENT

DAY 1

Read Chapter 8 Sections 8.1-8.4 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 8: Magnet poles. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 52 and discuss the word "magnet". Ask your child where they think the word "magnet" comes from. [You can look up the word "magnet" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week 16

Chapter 8. FOOD AND TASTE



CONTENT

DAY 1

Pick one section of Chapter 8 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 8. Repeat the experiment with items your child chooses. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about the history of magnets. Where did we find out about magnets? (answer - by doing experiments). [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child draw a magnet pole. [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 8.

NOTES

Week 17

Chapter 9. LIGHT AND SOUND



CONTENT

DAY 1

Read Chapter 9 Sections 9.1-9.4 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 9: Splitting light. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 61 and discuss the word "electromagnetic." Ask your child where they think the word "electromagnetic." comes from. [You can look up the word "electromagnetic." in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week 18

Chapter 9. LIGHT AND SOUND



CONTENT

DAY 1

Pick one section of Chapter 9 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.



EXPERIMENT

DAY 2

Discuss the results from Experiment 9. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.



CONNECTIONS

DAY 3

Ask your child about light and sound. Where did we find out about light and sound? (answer - by doing experiments). [This is open inquiry; use this opportunity to explore.]

DAY 4

Have your child “sound.” [This is open inquiry; use this opportunity to explore.]



REVIEW

DAY 5

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 9.

NOTES

Week 19

Chapter 10. SAVING ENERGY



CONTENT

DAY 1

Read Chapter 10 Sections 10.1-10.5 to your child. Allow open discussion and let your child ask questions. Explore questions using the internet or library.



EXPERIMENT

DAY 2

Perform Experiment 10: Playing with physics. Follow the teacher's manual for this experiment. The teacher's manual will walk you through each step of the experiment.



CONNECTIONS

DAY 3

Open the text book to page 68 and discuss the word "converted." Ask your child where they think the word "converted" comes from. [You can look up the word "converted" in a dictionary or on the internet.]

DAY 4

Take a break.



REVIEW

DAY 5

Review the text with your child. Ask if they have any questions about how acids and bases react. Read the Summary at the end of the chapter.

NOTES

Week **20**Chapter **10. SAVING ENERGY****CONTENT****DAY 1**

Pick one section of Chapter 10 that interests your student. Spend 30 minutes discussing this section and looking up additional information in the library or on the internet.

**EXPERIMENT****DAY 2**

Discuss the results from Experiment 10. Repeat the experiment if necessary. This is open inquiry and will help your child explore observations.

**CONNECTIONS****DAY 3**

Ask your child about the history energy on Earth. Where do we get energy? [This is open inquiry; use this opportunity to explore.]

**DAY 4**

Have your child draw “energy converting from one form to another.” [This is open inquiry; use this opportunity to explore.]

**REVIEW****DAY 5**

Exam.

Take the RS4K online or print test for Pre-Level I Chapter 10.

**NOTES**