



## BJU Press - 4th Grade - Science - Quarter 4 Map

| Week | Lessons         | Project/<br>Activity | Modification   | Submit | Objectives  |
|------|-----------------|----------------------|--|--------|---|
| 1    | Lesson<br>51-55 |                      | Do lessons 52 and<br>53 together,<br>Do lessons 54 and<br>55 in 2 days |        | Lesson 51:<br>recognize the interrelationship of science concepts, explain how movers use machines to make work easier and safer Page 73;<br>Lesson 52-53:<br>identify gravity and friction as forces, name examples of how friction is helpful, describe relationships between forces and movement, describe how the amount of work done is related to the amount of force and distance Pages 74-77;<br>Lessons 54-55:<br>design a plan to solve a problem, apply knowledge of simple machines, summarize the function of the diagram in writing, produce a design   |
| 2    | Lesson<br>56-59 |                      | Do lessons 56 and<br>57 together                                       |        | Lesson 56-57:<br>explain how simple machines make work easier, differentiate between the effort and the load, describe kinds of levers, name examples of different levers Pages 78-81;<br>Lesson 58:<br>experiment to determine how the position of the fulcrum affects the amount of effort, predict how many pennies are needed to balance a lever when the fulcrum is in given positions Pages 82-83;<br>Lesson 59:<br>use wheel and axle to show how distance and force are related, recognize that gears are a special kind of wheel and axle, identify where the load and effort are when a fixed pulley is used; explain how adding moveable pulleys to a block and tackle decreases the effort needed, name some examples of wheel and examples of wheels and axles and pulleys |

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| 3 | Lesson 60-64 |  | Do lessons 60 and 61 together                   | Chapter 4 Test | <p>Lesson 60:<br/>identify inclined planes screws and wedges as simple machines, name examples of inclined planes screws and wedges Pages 88-89;</p> <p>Lesson 61:<br/>conclude from the Bible record that ancient people were intelligent, infer the possible roles of simple machines in the construction of Noah;s Ark, describe the ark as a picture of Jesus Christ and salvation;</p> <p>Lesson 62:<br/>infer the relationship between force and work, compare the results of changing variables Pages 90-91;</p> <p>Lesson 63:<br/>Chapter review;</p> <p>Lesson 64:<br/>Chapter 4 Test</p>  |
| 4 | Lesson 65-69 |  | Do 66 and 67 in two days, do 68 and 69 together |                | <p>Lesson 65:<br/>describe how a power line worker works safely, defend the claim that we should be concerned about safety of other people, create some rules concerning safety around electricity from your class Page 93;</p> <p>Lessons 66-67:<br/>identify that all matter is made up of small particles, identify when an object is positively or negatively charged or neutral, describe static electricity, describe what happens when different charges are brought near each other;</p> <p>Lesson 68-69:<br/>differentiate between current electricity and static electricity, contrast conductors insulators and resistors, differentiate between a series circuit and a parallel circuit, identify the two parts of a circuit Pages 98-101</p> |
| 5 | Lesson 70-74 |  | Do lessons 72-74 in two days                    |                | <p>Lesson 70:<br/>predict whether items are conductors or insulators, from a generalization about the types of materials that are conductors Pages 102-103;</p> <p>Lesson 71:<br/>from generalizations about the types of materials that are attached to magnets, identify the place on a magnet where magnetism is the strongest, identify uses of magnets Pages 104-106;</p> <p>Lesson 72:-74:<br/>understand that the words chosen to type into a search engine have direct connection to the sources that are suggested by their results, practice converting questions to a set of keywords for use in developing queries, identify search terms and create queries for research</p>   |

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| 6 | Lesson 75-78 |                                |                                | Chapter 5 Test                 | <p>Lesson 75:<br/>test the strengths of the magnetic fields of magnets, test the fact that the magnetic fields are strongest at the poles of a magnet Pages 108-109;</p> <p>Lesson 76:<br/>explain why electromagnets are temporary magnets, list some uses for electromagnets, describe two relationships between magnetism and electricity, describe how a generator works Pages 110-113;</p> <p>Lesson 77:<br/>Chapter Review;</p> <p>Lesson 78:<br/>Chapter 5 Test</p>  |
| 7 | Lesson 79-82 |                                | Do lessons 80 and 81 in 2 days |                                | <p>Lesson 79:<br/>Defend the importance of work for a Christian, describe the ways that a photographer uses light, create images using more and less light, create images using more or less light Page 115;</p> <p>Lessons 80-81:<br/>recognize that light travels in a straight line, identify luminous objects, differentiate between transparent translucent and opaque objects Pages 116-119;</p> <p>Lesson 82:<br/>identify the location of a light source based on the position of a shadow, explain how shadows can be used to tell time Pages 120-121</p>  |
| 8 | Lesson 83-87 | Activity Shadows Big and Small | Do lessons 85 and 86 together  | Activity Shadows Big and Small | <p>Lesson 83:<br/>measure the length to the nearest centimeter;</p> <p>Lesson 84:<br/>demonstrate that light travels in straight lines, summarize the relationship between a light source and shadow produced Pages 122-123;</p> <p>Lesson 85-86:<br/>List the colors of the visible spectrum, explain why an object appears to be a certain color, explain why a straight object in a glass of water may appear bent Pages 124-127;</p> <p>Lesson 87:<br/>identify the parts of the eye and their functions, sequence how light travels through the eye, differentiate between farsighted vision and nearsighted vision, compare how light is refracted in different kinds of lenses</p> |

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| 9 | Lesson<br>88-92 |  |  | Lesson 88-89:<br>make a model of an eye, demonstrate knowledge of the parts of an eye<br>Page 132;<br>Lesson 90:<br>observe an object through several magnifying glasses, draw a detailed<br>representation of an object, compare and contrast observations Page 133;<br>Lesson 91:<br>Chapter 6 Review;<br>Lesson 92:<br>Chapter 6 Test |
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