

Unit Name: Balance and Motion

Enduring Understandings	Standards Addressed	Essential Questions	Anchor Lessons	Optional Lessons
1. The position of an object is described by relating its location to another object or the background.	<ul style="list-style-type: none"> PS5 Describe how objects can be balanced under some conditions 	<p>How many ways can a shape/object be at balance?</p> <p>How can counterweights help us balance other shapes/objects?</p>	<p><u>Investigation 1 - Balance</u></p> <ul style="list-style-type: none"> ✓ Part 1 "Trick Crayfish" ✓ Part 2 "Triangle and Arch" <p><i>Both parts <u>can</u> be done in 1 session.</i></p> <p>Science Story(s)</p> <ul style="list-style-type: none"> ✓ Make It Balance 	<p><u>Investigation 1 - Balance</u></p> <ul style="list-style-type: none"> ✓ Part 3 "The Pencil Trick" ✓ Part 4 "Mobiles"
2. An object's motion is described by tracing its position over time.	<ul style="list-style-type: none"> PS4 Demonstrate how applying force can change the motion of an object 	<p>How can you change a spinning object's motion?</p> <p>How can a spinning object be kept in motion?</p>	<p><u>Investigation 2 - Spinners</u></p> <ul style="list-style-type: none"> ✓ Part 1 "Tops" (session 1 only) ✓ Part 2 "Zoomers" <p>Science Story(s)</p> <ul style="list-style-type: none"> ✓ Push or Pull ✓ Tools and Machines ✓ Move It, But Don't Touch It 	<p><u>Investigation 2 - Spinners</u></p> <ul style="list-style-type: none"> ✓ Part 1 "Tops" (session 2 only) ✓ Part 3 "Twirlers" <p>Science Story(s)</p> <ul style="list-style-type: none"> ✓ Things That Spin
3. An object's position or motion can be changed by a force (a push or a pull.)	<ul style="list-style-type: none"> PS3 Understand objects can move in various ways PS4 Demonstrate how applying force can change the motion of an object 	<p>How does a change in a wheel-and-axle system affect its path and /or motion?</p> <p>Can we predict the behavior of a rolling cup?</p> <p>What happens if a weight is added to a rolling-cup system?</p>	<p><u>Investigation 3 - Rollers</u></p> <ul style="list-style-type: none"> ✓ Part 1 "Rolling Wheels" ✓ Part 2 "Rolling Cups" <p>Science Story(s)</p> <ul style="list-style-type: none"> ✓ Rolling, Rolling, Rolling! 	<p><u>Investigation 3 - Rollers</u></p> <ul style="list-style-type: none"> ✓ Part 3 "Rolling Spheres" <p>Science Story(s)</p> <ul style="list-style-type: none"> ✓ Strings in Motion

REQUIRED ASSESSMENT – You may choose either End-of-Module Assessment: Summative Assessment No. 4 OR No. 5&6.