## Harnessing Human Energy | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 20 | cables with alligator clips |
| 51 | vials, plastic, with lid |
| 10 | generators, hand-crank |
| 100 | brads, brass plated |
| 10 | fan blades, plastic |
| 50 | springs, assorted |
| 10 | electric motors |
| 1 | string, 600 ft |
| 10 | battery holder |
| 2 | toys, wind-up |
| 1 | solar panels |
| 10 | batteries, D |
| 20 | rubber bands |
| 1 | clamp lamp |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 2 | Scientific Argumentation Label and Scientific <br> Argumentation Purpose cards |
| 2 | Evaluating Evidence Label and Evaluating Evidence <br> Criterion cards |
| 1 | components of a Written Scientific Argument card |
| 2 | Scientific Argumentation Sentence Starters cards |
| 1 | Argumentation Sentence Starters card |
| 1 | Scientific Argument diagram |
| 1 | Evidence Gradient |
| 1 | Reasoning tool |
| 20 sets | Ed-You-Swivel Evidence Cards (8 cards/set) |
| 20 sets | Ed-You-Swivel Claim Cards (3 cards/set) |


| 20 sets | Word Relationships cards (5 cards/set) |
| :--- | :--- |
| 8 | Large Ed-You-Swivel Evidence Cards |
| 21 sets | Energy Source cards (7 cards/set) |
| 20 | Evidence Gradient student sheets |
| 3 | Large Ed-You-Swivel Claim cards |
| 2 | Key Concepts and Vocabulary cards headers |
| 3 | Chapter Questions cards |
| 1 | Unit Question card |
| 5 | Key Concepts cards |
| 11 | Vocabulary cards |

## Force and Motion | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 40 | spring-loaded toilet paper roll holder/spring <br> launchers |
| 20 | rulers, 12", center groove |
| 20 | balls, table tennis |
| 40 | balls, rubber |
| 20 | stopwatches |
| 20 | balls, golf |
| 40 | jar lids |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 20 sets | 1.4 Word Relationships cards (4 cards/set) |
| 20 sets | 3.3 Word Relationships cards (4 cards/set) |
| 2 | Key Concepts and Vocabulary cards headers |
| 4 | Chapter Questions cards |
| 1 | Unit Question card |
| 7 | Key Concepts cards |
| 9 | Vocabulary cards |

## Force and Motion: Engineering Internship | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 50 | deli container, rectangular |
| 100 | straws, plastic, unwrapped |
| 15 | baggies, plastic with zip |
| 2 | string (200 ft/set) |
| 25 | steel wool pads |
| 2 | scales, digital |
| 100 | coffee filters |
| 100 | pipe cleaners |
| 40 | foam peanuts |
| 500 | cotton balls |
| 500 | twist ties |

## Outlines to Paragraphs



Keeping mouths clean: tor desith hase
han our geat $80 \%$ We ford that better ristles and natural-fiber bristles both emoved at least $80 \%$ of plaque and singe
hore removed plaque means 1
Secay, people are now healthier. Therefore, we selected the natural fiber bristles for our design. Our cheaper design used nylon pristles (\$1.20 per toothbrush), but the
clean-mouth rating for that toothbrush
handle also affected the clean-mouth rating because the strength of the handle affects
how much plaque is removed. Plastics are
stiffer and help people remove more plaque while brushing compared to more flexible handles, made from all-plant material.

## Magnetic Fields | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 30 | baggies, plastic with zip |
| 20 | wooden craft sticks |
| 1 | aluminum foil, roll |
| 20 | compression springs |
| 20 | strong magnets |
| 20 | weak magnets |
| 10 | rubber balls |
| 20 | magnet bars |
| 100 | paper clips |
| 10 | pom poms |
| 20 | rulers |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 20 | Evidence Gradient cards |
| 2 | Key Concepts and Vocabulary cards headers |
| 4 | Chapter Questions cards |
| 1 | Evidence Criterion card |
| 8 | Key Concepts cards |
| 1 | Unit Question card |
| 16 | Vocabulary cards |

## Light Waves | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 20 | cubes, red and green (10 of each color) |
| 1 | liquid crystal paper, sheet |
| 10 | flashlights, UV (LED bulb) |
| 1 | transparency paper, sheet |
| 10 | flashlights, incandescent |
| 20 | stars, glow-in-the-dark |
| 80 | beads, color-changing |
| 1 | lightbulb, 60 watt |
| 10 | toys, solar-powered |
| 10 | bottles, spray |
| 10 | laser pointers |
| 5 | pipe cleaners |
| 20 | binder clips |
| 2 | thermometers |
| 1 | clamp lamp |
| 10 | mirrors |

## energy

1. The movement of energy can be tracked by observing the changes the energy causes to matter.

## Chapter 2 Question

How can the same amount of sunlight cause different rates of skin cancer?

## Unit Question

How does light interact with materials?

Vocabulary

## Key Concepts

Classroom materials

| Quantity | Description |
| :--- | :--- |
| 2 | Key Concepts and Vocabulary cards headers |
| 4 | Chapter Questions cards |
| 1 | Unit Question card |
| 12 | Key Concepts cards |
| 10 | Vocabulary cards |

## Earth, Moon, and Sun | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 40 | isosceles triangles cut from transparency |
| 1 | lightbulb, 60 watt |
| 41 | spheres, foam |
| 41 | chopsticks |
| 1 | clamp lamp |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 10 | Moon Phases paper model templates |
| 2 | Key Concepts and Vocabulary cards headers |
| 4 | Chapter Questions cards |
| 12 | Key Concepts cards |
| 1 | Unit Question card |
| 9 | Vocabulary cards |

## Natural Selection | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 100 | bags, plastic with zip, quart-size |
| 20 | bags, plastic with zip, large |
| 500 | counting cubes, purple |
| 500 | counting cubes, green |
| 500 | counting cubes, blue |


2. The number of individuals with each trait in a population can change over time.

## Unit Question

Why do populations change over time?

Chapter 1 Question
What caused this newt population to become more poisonous?

## Vocabulary

Key Concepts

Classroom materials

| Quantity | Description |
| :--- | :--- |
| 2 sets | Butterfly Population Cards (20 cards/set) |
| 2 | Key Concepts and Vocabulary cards headers |
| 4 | Chapter Questions cards |
| 12 | Key Concepts cards |
| 1 | Unit Question card |
| 15 | Vocabulary cards |

## Natural Selection: Engineering Internship | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 20 | drawstring bags, non-transparent, small |
| 20 | bags, plastic with zip, quart-size |
| 3 | bags, plastic with zip, large |
| 500 | counting cubes, purple |
| 500 | counting cubes, green |
| 500 | counting cubes, blue |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 20 sets | Modeling Population Shifts cards (6 cards/set) |
| 20 | Outlines to Paragraphs sheets |

## Evolutionary History | Grade 8



Materials in this unit are packaged in 1 box.

| Hands-on materials |  |
| :--- | :--- |
| Quantity | Description |
| 1 | K'Nex Intermediate Math and Geometry Kit |
| 20 | baggies, plastic with zip |



Classroom materials

| Quantity | Description |
| :--- | :--- |
| 10 sets | Word Relationships cards: set 1 (5 cards/set) |
| 10 sets | Word Relationships cards: set 2 (6 cards/set) |
| 20 sets | Comparing Body Structure cards (10 cards/set) |
| 20 sets | Structure Change cards (6 cards/set) |
| 20 | Comparing Evidence tables (Table 1) |
| 20 | Comparing Evidence tables (Table 2) |
| 6 | Species cards (9 cards/set) |
| 20 sets | Large Species cards |
| 20 | Key Concepts and Vocabulary cards headers Change cards |
| 9 | Chapter Questions cards |
| 2 | Evidence Criterion card |
| 4 | Unit Question card |
| 1 | Key Concepts cards |
| 1 |  |

