

SPRING BRANCH ISD

**DIGITAL
BACKPACK**

SCIENCE



Science eLearning Guide – Week 6

Biology: Animal Systems Part 2

- Students will describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in animals.
- Students will analyze the levels of organization in biological systems and relate the levels to each other and to the whole system.

Chemistry: Enthalpy & Thermochemical Equations

- Students will classify reactions as exothermic or endothermic and represent energy changes that occur in chemical reactions using thermochemical equations or graphical analysis.

Physics: Wave Motion Part 4

- Students will compare and contrast longitudinal and transverse waves.

IPC: Solutions Part 3- Chemistry of Water

- Students will relate the structure of water to its function as a solvent.
- Students will research and describe the environment and economic impact of the end products of chemical reactions such as those that may result in acid rain.

Biology - WEEK 6

Objectives

- Students will describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in animals.
- Students will analyze the levels of organization in biological systems and relate the levels to each other and to the whole system.

For Parents

- Please make sure your student has access to the internet and a technology device.
- If able, please print: [this document](#); and this [page](#)

For Students

- Explore the human nervous system through this [interactive](#): tinyurl.com/r5cof29
- Explore the functions of the endocrine system by virtually [diagnosing hormone disorders](#): tinyurl.com/vk9e3wh
- Watch this [video](#) on the nervous system structures and functions and take notes: tinyurl.com/poa8mun
- Watch this [video](#) on the endocrine system structures and functions and take notes: tinyurl.com/LLmrbxs
- Read and respond to the questions in [this document](#): tinyurl.com/tzjekce
- Check your understanding of the nervous system's structures with this [digital concept map](#): tinyurl.com/vcs5r7g
- Check your understanding of the endocrine system's structures with this [digital concept map](#): tinyurl.com/endocrine-cm
- Putting it Together: Follow the directions on this [page](#) to create a one-pager of what you know! tinyurl.com/u4tz2sf

AP Resources:

- Continue with the following:
 - Take the diagnostic test for AP Biology and proceed through drills and practice based on your results. [Log in directions](#)
 - Find the corresponding [Bozeman Science video tutorials](#) for the areas you need support.
- Continue, as applicable, with the review at: <https://apstudents.collegeboard.org/coronavirus-updates>

Resources

- Divisions of the nervous system [tutorial](#): tinyurl.com/v4mpv3a
- More [detailed explanation](#) of the nervous system: tinyurl.com/uzqd69o
- Endocrine system [tutorial](#): tinyurl.com/t8w7np2

Chemistry - WEEK 6

Objectives

- Students will classify reactions as exothermic or endothermic and represent energy changes that occur in chemical reactions using thermochemical equations or graphical analysis.

For Parents

- Please make sure your student has access to the internet and a technology device.
- If able, please print: these [graphs](#); these [thermochemical equations](#); and this [concept check](#).

For Students

- Watch this [video](#) on instant heat packs: tinyurl.com/qkae57c
Answer these questions: Why did the temperature of the ice pack increase when the metal tab was clicked? [After answering, click [here](#) (tinyurl.com/y9jcu8wd) to find out why!]
- Take a look at these [graphs](#) and see if you can answer the questions: tinyurl.com/sq9gw4b
- Explore the concepts of enthalpy, exothermic reactions and endothermic reactions [here](#): tinyurl.com/r9nk456
- Watch this [short explanation](#) of enthalpy and how to solve thermodynamic equations: tinyurl.com/s5ujzce
- Try these [thermochemical equations](#) practice: tinyurl.com/qwhjtel
- Here is a quick [concept check](#): tinyurl.com/tjdsosh

AP Resources:

- Continue with the following:
 - Take the diagnostic test for AP Chemistry and proceed through drills and practice based on your results. [Log in directions](#)
 - Find the corresponding [Bozeman Science video tutorials](#) for the areas you need support.
- Continue, as applicable, with the review at:
<https://apstudents.collegeboard.org/coronavirus-updates>

Resources

- HMH Modern Chemistry [Thermochemistry](#): tinyurl.com/ujtLtyt
- Khan Academy - [Enthalpy & Thermodynamics](#): tinyurl.com/t9c9uw5

Physics - WEEK 6

Objectives

- Students will compare and contrast longitudinal and transverse waves.

For Parents

- Please ensure your student has internet access and a technology device.
- If able, please print: this [Venn Diagram](#) and this [concept check](#)

For Students

- Watch this [video](#) (tinyurl.com/y2jfd7wd) and fill in this [Venn Diagram](#): tinyurl.com/w7vw4f5
- Read through this [website](#) and add to your Venn Diagram: tinyurl.com/ybgkhLqc
- Watch this [video](#) on light and sound: tinyurl.com/yb9Ldoq7
- Use your Venn Diagram and the information from both YouTube videos to complete this [concept check](#): tinyurl.com/racwdo8
- Play this [quizziz](#) to check your understanding (either flashcard or play mode): tinyurl.com/s27tjbu

AP Resources:

- Continue with the following:
 - Take the diagnostic test for AP Physics and proceed through drills and practice based on your results. [Log in directions](#)
 - Find the corresponding [Bozeman Science video tutorials](#) for the areas you need support.
- Continue, as applicable, with the review at: <https://apstudents.collegeboard.org/coronavirus-updates>

Resources

- [What is Light?](#) tutorial: tinyurl.com/yck9kcca
- [What is Sound?](#) tutorial: tinyurl.com/uu6yqp8

IPC - WEEK 6

Objectives

- Students will Investigate the properties of water solutions and factors affecting solid solubility, including nature of solute, temperature, and concentration.

For Parents

- Please be sure your student has internet access and a technology device.
- Please print, if able: this [notesheet](#) and this [concept check](#)

For Students

- Guess: How many drops of water can fit on the top of a penny? After guessing, watch this [video](#) to see if you are correct: tinyurl.com/utnfb2g
- Watch this [video](#) on the properties of water: tinyurl.com/gmmze3c
- Take [notes](#) (tinyurl.com/wujy6Lh) on water using this [presentation](#): tinyurl.com/vwcp2db
- Watch this [video](#): tinyurl.com/h72e5Lb. Answer this question: Why does the water bend towards the acrylic rod?
- Try this [concept check](#): tinyurl.com/vosf87d

Resources

- Properties of water [tutorial](#): tinyurl.com/rzho9cj