


Sample Lessons



Sample Lesson #1 — Buyer Be There

Game Phases	Game Opening or Sale
Game Task	Player approved for bank loan; player seeks buyer
The Activity	Students learn the concept of time payments and translate that into a working knowledge of how to calculate payments, set up budgets and begin to manage finances.
Core Subjects	Consumer Math/Algebra, Family and Consumer Science, Economics, English Language Arts
Basic Skills	Critical Thinking, Reasoning, Planning and Organization
Learning Objective	Understand the concept of time payments and use math skills to calculate principal and interest on a loan.

Materials/Resources

1. Mortgage terms in the program dictionary
2. Vocabulary handout sheet on financing terms
3. A local banker or financial professional
4. Ads for homes, cars or other time purchases that contain interest percentages and down payment information

Procedure

- Send students to the game Library to find mortgage terms documents for an opening discussion of mortgage loans, principal and interest. Hand out copies of the Vocabulary sheet
- Enlist the assistance of a local banker to help explain and illustrate these concepts in a clear and simple way.
- Talk about the three factors described in the loan letter that affect interest payments:
 - The size of the loan: The larger the loan amount, the more interest will be paid.
 - The interest rate. (A rate of 8% means a larger payment than a rate of 6%).
 - The time it takes to pay back the loan. (You will pay more interest for 24 months than for 12 months) Of these factors, time is the one they can control. In the game, players can control costs by keeping the building process on schedule and avoiding delays.
- Ask the class to write the formula for calculating monthly interest on a loan principal, if the interest rate is 8%. Then, have students calculate monthly interest on different loan rates, and total interest on loans of different lengths (36 months, 10 years, 20 years). They can use rates they find in local papers.
- A typical home loan is 30 years. If the game loan is for that period, what is the principal per month? What is the total payment – principal plus interest?

Lesson Variations

What Can You Afford?

Give student teams a monthly income and fixed expenses: rent, food, clothing allowance, utilities, routine household items.

A local banker/financial planner or consumer finance magazines can assist you in developing realistic figures.

Ask the teams to decide on one major purchase their household wants to make:

- buy a home instead of renting
- buy a car
- buy new major appliances for the kitchen or a large screen TV/entertainment center

Tell teams to determine monthly disposable income after they have taken care of expenses, then identify three different choices of the item they want to purchase.

The choices may be vastly different in price and style. For example, an economy car, an SUV, a convertible. Teams will calculate payments required for each of their choices and report their results to the class. Presentations should include handout sheets of their calculations and conclusions: What can they afford?

Ask the Experts

Set up a financial “panel” with a loan officer of a local bank, a mortgage broker, a real estate professional and a home developer.

Ask the speakers to set up a home buying scenario using real examples from your area so students can understand the process they would go through to obtain a mortgage loan.

The speakers should encourage students to brainstorm, problem-solve and make calculations as they actively participate in determining the cost of a particular home and how the cost would vary based on terms of a mortgage.

Ask students to compare loan amounts and interest percentages used in the game with those in the local paper, and in other areas of the country.

Sample Lesson #2 — Why Muddy the Waters?

Game Phases	The Site (lot #123)
Game Task	Player learns about water source that is on Impaired Waters List that needs to be protected.
The Activity	Students will research their state’s Impaired Waters List and select a local or state body of water to study and report on. The finished product can take the form of a written/oral report, a photo essay, a museum-style display, a video documentary, a mural or other presentation form. Class projects can be assembled for a school science fair. Students can put their finished projects in their portfolios.
Core Subjects	Science (Biology, Earth/Natural Science, Environmental Studies), English Language Arts, Civics (if students turn the lesson into a Service Learning project)
Basic Skills	Research and Investigation, Observation
Learning Objective	Understand and use scientific methods of research and investigation to study the impact of pollutants on local bodies of water, and how to mitigate impacts.

Materials/Resources

1. Information and definitions in the game Library, in the Environmental and Health segment of the Permit Office at the second game level, and the Environmental Consultant's lot report are good starting points for research.
2. The state or local department of natural resources or other water authority. Most states have a detailed web site segment relating to their impaired water list, which includes names, pollutants and priority of each body of water.
3. The Environmental Protection Agency web site.
4. School library media center (arrange a how-to research session for students.)

Procedure

- Begin with a class dialog on the Clean Water Act and impaired waters. Under the Clean Water Act, every state is required to provide a prioritized listing of waterways that fall under the definition of impaired due to pollutants: lakes, wetlands, streams, rivers, and portions of rivers that do not meet all state water quality standards. These are considered "impaired waterbodies" and states are required to calculate total maximum daily loads (TMDLs) for pollutants causing impairments. This information can be found through most states' departments of natural resources.
- Ask questions such as:
 - What kinds of bodies of waters do we have in our area: Lakes? Wetlands? Streams? Rivers?
 - Are they impaired? (Talk about what that actually means.) Can you tell just by looking if a body of water is "impaired"? How do you think your state knows if water is impaired?

- How does water get impaired? What kinds of “pollutants” can cause water to become impaired? Are all pollutants man-made or are some natural?
- What purpose does each of these types of water serve? What role do they play in insect and animal habitats? Human habitat?
- If water is impaired, what do you think happens to the humans, animals, plants and insects that depend on it?
- Tell students they are going to research and document a local or state impaired body of water.

Their methods should include research, observation (directly, if possible), interviews with local water authorities, historical data on the body of water, library and internet research.

- Decide on a basic template of information to be researched/ presented by students: The body of water, it’s history and geography, historical and present day pollution levels; about the pollutants found in the water and how to measure and treat them; the state’s plan of action; if possible, a on-site visit for observation and collection of water samples for taking measurements; interviews with water experts; impact of pollutants on humans, animals, insects and plants; and long-term prognosis for recovery.
- Discuss how students will create their documentation. Talk about creative ways to present their information. You may be able to work with art or photography (video) teachers to create photo essays, videos or “day in the life” murals.

Lesson Variation

Apply for a grant through your state department of natural resources to monitor a local impaired water source, or partner with your local water monitoring authority to create a Service Learning project that allows your students to apply what they learned about monitoring pollutants in water to a real-life situation.

Sample Lesson #3 — Who Goes There?

Game Phases	The Site
Game Task	Player learns about possible endangered species on the lot
The Activity	Students will research and document one local species of wildlife, using their neighborhood as a learning lab. The finished product can take the form of a written/oral report, a photo essay, a museum-style display, a video documentary, a mural or other presentation form. Class projects can be assembled for a school science fair. Students can put their finished projects in their portfolios.
Core Subjects	Science (Biology, Zoology, Earth/Natural Science, Environmental Studies), English Language Arts
Basic Skills	Research and Investigation, Interviewing and Observation
Learning Objective	Understand and use scientific methods of research and investigation to study life cycles of local wildlife.

Materials/Resources

1. Information and definitions in the game Library can be a starting point for research.
2. A local zoo, nature conservancy, natural history museum.

3. School library media center (Arrange a how-to research session for students.)

Procedure

- Begin with a class dialog on the local “wildlife.” Students probably don’t give much thought to the birds and animals they see everyday. Ask questions such as:
 - What kinds of birds, insects or mammals live in your “backyard”?
 - Are they endangered? (Talk about what that actually means.)
 - What is the relationship between the animal/insect inhabitants and the human neighbors?
 - What contributions does this animal/bird/insect make to the life/life style in your community?
- Tell students they are going to research and document an inhabitant of their choice.
- Their methods should include observation, interviews with older residents (grandparents, neighbors), local historical data, library/museum research.
- Decide how students will create their documentation. Talk about creative ways to present their information. You may be able to work with art or photography (video) teachers to create photo essays, videos or “day in the life” murals.

Lesson Variation

Create a class wildlife backyard habitat and have it certified as part of the National Wildlife Federation’s education outreach program. Check out the organization’s web site for details: www.nwf.org/backyardwildlifehabitat/createhabitat.cfm