## Bookworm Factory

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## Lesson Description

Students will create economic bookmarks using both the artisan and assembly line method.

## Grades 3-4

## Concepts

- Human Capital: The knowledge and skills people gain through education, experience and training.
- Productivity: The amount of output (goods and services) produced per unit of input (productive resources) used.
- Specialization: A situation in which people produce a narrower range of goods and services than they consume. Specialization increases productivity; it also requires trade and increases interdependence.
- Division of Labor: an arrangement in which workers perform only one step or a few steps in a larger production process (as when working on an assembly line).
- Artisan/Craftsman: Individual workers produce the entire product.


## Standards

## Arkansas Economics Standards

- E.5.3.1: Examine the relationship between human capital and productivity (e.g., division of labor, specialization) D2.Eco.6.3-5
- E.5.4.1: Examine ways human capital impacts productivity and future incomes D2.Eco.6.3-5


## Arkansas English Language Arts Standards

## Grade 3

- SL.3.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.


## Grade 4

- SL.4.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and
teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.


## Objectives

Students will be able to

- experience the artisan and assembly line method of production.
- develop their human capital and be able to explain how "training their brain" will help them in school.


## Time required

45-60 minutes

## Materials required

- Activity 1 - 10 copies per group
- Green markers - 1 per group
- Scissors - 1 per group
- Ball of yarn - one per group


## Procedure

1. Divide the class into groups of 5 or 6 . Have the students clear everything from their desks.
2. Tell the students they are going to learn 2 different ways to produce products. One is the "assembly line" method. An assembly line uses division of labor to produce a product, workers each produce a small part of the product. For example, in a car factory each person has a specific job that they do as the car or truck moves down the conveyor belt. One person might spend his day putting on doors, while another might only put in headlights. The second way to produce products is called the "artisan or craftsman" method. Producers who use this method produce the entire product themselves. For example, a painter would paint an entire picture, not just one small part.
3. Tell the students: "Today the class is going to produce economic bookmarks. Some groups will be artisans and complete the entire bookmark themselves. Other groups will work on an assembly line to produce bookmarks. No matter which group you are, in the bookmarks must be produced in a certain way." Display completed economic bookmark.
4. Designate groups as either artisan production or assembly line production. Ask: What kind of jobs would you need in an assembly line to produce these bookmarks? Who will do these jobs? (Each person will do one job over and over again.) Who will do the jobs at the artisan tables? (Each person will do all of the jobs.)
5. Distribute the materials for the activity. Tell the students that due to government safety regulations they can only use the materials provided by you. Remind them that the artisans must make the entire bookmark by themselves and that assembly line workers will each do one job over and over again.
6. Tell: The assembly line groups are to make as many bookmarks as possible. Any that do not meet
the quality control standards (neatly cut out, worm colored nicely, hole punched in the correct spot, yarn tied) will be discarded. At the artisan tables each person is to work to create one perfect bookmark. Ask one artisan group: How many bookmarks should you have? (one per person in group) Ask one assembly line group: How many bookmarks should you have? (as many as possible)
7. Give the students 5 minutes to produce bookmarks. Move from group to group to insure that directions are being followed and to help with any misunderstandings. Ask the assembly line groups who is doing what job.
8. When time is up, have each group share the number of bookmarks completed. Be sure to discard any that don't meet the standards. Be sure to compliment the groups on their bookmark production abilities.
9. Ask/Tell the class:
a. Do you think it will be easier or harder to produce the cards during the next round? (easier)
b. Why? (because we know what we're doing)
c. Would you say you've "trained your brain" to make these bookmarks? When you learn a something new, that is called improving your "human capital."
10. Ask if there are any questions. Collect all finished bookmarks and discard any used paper and incomplete bookmarks. Remind the groups that they use the same production method as before and their goals (assembly line as many as possible, artisan one each). Replenish paper as needed. Start Round Two of production.
11. Repeat steps 7 and 8 .
12. Ask each group if they produced more bookmarks than in round one. (Hopefully, most or all of the assembly line groups did.) Ask, what made the second round easier? (the students knew what to do) What do we call it when we train our brain? (improving human capital)

## Closure/Assessment

- If you needed to produce 1000 products that are all the same, which method would be the best to use - artisan or assembly line? (assembly line)
- If you wanted to produce 10 really special products, which method would be the best to use - artisan or assembly line? (artisan)
- When we are improving our human capital, what are we doing? (training your brain)

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