Circular Economy: Understanding Our Future

Introduction to Circular Economy (15 minutes)

Watch the provided video clip and discuss with your partner:

Initial Thoughts:

1. What does "circular" mean in everyday life?

2. Can you name three things that get recycled in your home?

3. Draw a simple circle diagram showing how a plastic bottle could be reused:

Understanding Resource Cycles (20 minutes)

Complete the following activities to understand how materials move in cycles:

Activity 1: Material Detective

Look around your classroom and identify 5 items. Fill in the table below:

Item	Made From	Can it be recycled?	New Uses

Creative Problem Solving (25 minutes)

Work in groups to solve these circular economy challenges:

Challenge 1: School Lunch Waste

Your school produces food waste from lunches. Design a circular solution:

1. List all types of waste from school lunches:

2. Draw a diagram showing how this waste could be used:

3. Write three steps to implement your solution:

Challenge 2: Clothing Cycle

Create a circular plan for old school uniforms:

1. What happens to outgrown uniforms now?

2. Design a uniform sharing or recycling system:

3. How would you convince others to participate?

Practical Investigation (30 minutes)

Conduct a mini research project on waste in your school:

Data Collection Sheet

Record waste found in different areas:

Location	Type of Waste	Amount (estimate)	Possible Solutions
Classroom			
Playground			
Cafeteria			

Analysis Questions:

1. Which area produces the most waste?

2. What patterns do you notice about the types of waste?

3. Suggest three ways to reduce the most common type of waste:

Design Thinking Challenge (45 minutes)

Apply circular economy principles to create innovative solutions:

Project: Redesign a Common Product

Step 1: Choose Your Product

Product Name	Current Problems	Possible Improvements

Step 2: Analyze Materials

List all materials used in your product:

How could these materials be made more sustainable?

Design Thinking (Continued)

Step 3: Prototype Design

Sketch your redesigned product here:

Label your design features:

1. Sustainable materials used:
2. Reusable components:
3. End-of-life solutions:

Impact Assessment (30 minutes)

Evaluate the environmental impact of your redesigned product:

Environmental Impact Comparison

Aspect	Original Product	Your Redesign	Improvement (%)
Material Usage			
Energy Consumption			
Waste Production			

Market Analysis (30 minutes)

Develop a business case for your circular product:

Marketing Strategy

Target Market:

Unique Selling Points:

1.
2.
3.

Price Comparison:

Cost Category	Traditional Product	Your Product
Production Cost		
Retail Price		
Lifetime Value		

Final Presentation (45 minutes)

Prepare a presentation of your circular economy solution:

Presentation Structure

1. Introduction (2 minutes)

2. Problem Statement (3 minutes)

3. Your Solution (5 minutes)

4. Environmental Impact (3 minutes)

5. Business Case (2 minutes)

Presentation Tips:

- Use visual aids to explain your design
- Include prototype photographs or drawings
- Prepare to answer questions about feasibility
- Practice your timing

Conclusion and Next Steps

Reflect on what you've learned about the circular economy:

Final Reflection

1. What was the most surprising thing you learned today?

2. How can you apply circular economy principles at home?

3. What change would you like to see in your school?

My Circular Economy Action Plan

Write three actions you will take in the next week:

1.
2.
3.

Teacher's Assessment

Learning Objective	Achieved	Comments
Understanding of Circular Economy		
Problem-Solving Skills		
Practical Investigation		