

HIGH SCHOOL LESSON PLAN



LESSON PLAN

Understanding Cancer and Promoting Prevention

Subject: Physical Education and Health (PDHPE)

Year Levels: 7–10 (adaptable for specific year level focus)

Topic: Cancer Awareness and Prevention

Time Allotment: 2 x 60-minute lessons (can be adjusted)

Learning Area Focus: Health and Movement Science

Australian Curriculum Links (PDHPE):

► **Movement and Physical Activity:** (Depending on activities chosen, links to active participation and skill development)

► **Health and Wellbeing:**

Personal, Social and Community Health:

- Investigate and analyse how health is influenced by a range of factors (e.g., individual, social, cultural, environmental) and propose actions for health enhancement (ACPPS074, ACPPS080, ACPPS086, ACPPS092).
- Analyse influences on health behaviours and evaluate strategies to promote health, safety and wellbeing (ACPPS077, ACPPS083, ACPPS089, ACPPS095).
- Critically analyse health information and resources to evaluate their reliability and validity (ACPPS078, ACPPS084, ACPPS090, ACPPS096).

Movement and Physical Activity: (Indirectly linked through promoting healthy lifestyles)

LEARNING OUTCOMES

By the end of this lesson sequence, students should be able to:

- Define cancer and explain the basic biological processes involved.
- Identify various types of cancer and their prevalence in Australia.
- Understand the significance of cancer as a leading cause of death in Australia.
- Explain the importance of sun safety practices in preventing skin cancer.
- Analyse epidemiological data related to cancer incidence and mortality in Australia.
- Evaluate different health promotion strategies targeting cancer prevention at individual and community levels.
- Critically analyse health information related to cancer.

LESSON 1: WHAT IS CANCER AND WHY DOES IT MATTER? (60 MINUTES)

MATERIALS

- ▶ Whiteboard or projector
- ▶ Markers or pens
- ▶ Computer with internet access
- ▶ Visual aids (diagrams of cells, cancerous growth – age-appropriate)
- ▶ Australian Cancer Council statistics (printed or online access)
- ▶ Handout: “Understanding Cancer Basics” (see example below)

LESSON PROCEDURE

1. Introduction (10 mins)

- ▶ Begin with a class discussion: “What do you know about cancer?” Record student responses on the board.
- ▶ Acknowledge that cancer is a serious health issue in Australia and a leading cause of death. Briefly share relevant national statistics (e.g., 1 in 2 Australians diagnosed by age 85). Emphasize that understanding it empowers prevention and early detection.

2. Defining Cancer (15 mins)

- ▶ Explain in simple terms what cancer is: the uncontrolled growth and spread of abnormal cells.
- ▶ Use visual aids to illustrate normal cell growth versus cancerous growth.
- ▶ Discuss the concept of tumours (benign vs. malignant).
- ▶ Introduce the idea that cancer can occur in many parts of the body (briefly mention a few common types like skin, breast, lung, bowel).

3. Cancer in the Australian Context (15 mins)

- ▶ Present key epidemiological data about cancer in Australia (e.g., incidence rates for common cancers, mortality rates, age groups most affected). Use data from reputable sources like the Australian Institute of Health and Welfare (AIHW) or Cancer Council Australia.
- ▶ Discuss why understanding these statistics is important for public health and resource allocation.
- ▶ **Activity:** Briefly analyse a simple graph showing cancer incidence or mortality rates over time or by type. Ask students to identify trends or key findings.

4. Introduction to Prevention (15 mins)

- ▶ Transition to the idea that while cancer is serious, many cases are preventable.
- ▶ Brainstorm with students potential risk factors for cancer (diet, smoking, UV exposure, genetics – introduce the concept of modifiable and non-modifiable risk factors).
- ▶ Introduce sun safety as a significant preventable risk factor for skin cancer, a prevalent cancer in Australia.

5. Wrap-up (5 mins)

- ▶ Review key concepts: definition of cancer, its significance in Australia, and the idea of prevention.
- ▶ Distribute the “Understanding Cancer Basics” handout as a reference for the next lesson.

Handout Example: Understanding Cancer Basics

- ▶ **What is Cancer?** (Simple definition)
- ▶ **Key Terms:** Cells, growth, abnormal, tumour (benign/malignant), metastasis (simplified).
- ▶ **Cancer in Australia:** (Brief statistics – e.g., common types, impact).
- ▶ **The Importance of Prevention:** (Briefly introduce the concept).

LESSON 2: SUN SAFETY AND HEALTH PROMOTION FOR CANCER PREVENTION (60 MINUTES)

MATERIALS

- ▶ Whiteboard or projector
- ▶ Markers or pens
- ▶ UV index information (online or printed)
- ▶ Examples of sun-protective clothing, sunscreen, hats, sunglasses
- ▶ Post-it notes or small pieces of paper
- ▶ Flip chart or large paper
- ▶ Case studies of health promotion campaigns (optional)

LESSON PROCEDURE

1. Recap and Introduction to Sun Safety (10 mins)

- ▶ Briefly review the definition of cancer and its prevalence in Australia.
- ▶ Introduce skin cancer as a major concern in Australia due to high UV levels.
- ▶ Ask students: “Why is the sun a risk factor for cancer?” (Lead them to understand UV radiation and its damage to skin cells).

2. The Importance of Sun Safety (20 mins)

- ▶ Explain the different types of UV radiation (UVA, UVB) and their effects.
- ▶ Discuss the short-term (sunburn) and long-term (skin cancer, premature aging) risks of excessive sun exposure.
- ▶ Introduce the “Slip, Slop, Slap, Seek, Slide” campaign as a key Australian health promotion initiative.
 - **Slip:** on protective clothing.
 - **Slop:** on SPF 30 or higher sunscreen.
 - **Slap:** on a broad-brimmed hat.
 - **Seek:** shade.
 - **Slide:** on sunglasses.

- ▶ Demonstrate examples of sun-protective measures (clothing, sunscreen application, hat types, sunglasses).
- ▶ Discuss the importance of understanding the UV index and when sun protection is most crucial.

3. Health Promotion and Cancer Prevention (20 mins)

- ▶ Broaden the discussion to other cancer prevention strategies beyond sun safety (e.g., healthy diet, regular physical activity, not smoking, vaccination - HPV).
- ▶ Introduce the concept of **health promotion** – the process of enabling people to increase control over, and to improve, their health.
- ▶ Discuss how health promotion targets individuals (e.g., education campaigns about healthy eating, smoking cessation programs) and communities (e.g., smoke-free public spaces, workplace wellness programs, cancer screening programs).
- ▶ **Activity:** Divide students into small groups. Assign each group a different cancer prevention strategy. Ask them to brainstorm how this strategy can be promoted at both an individual and a community level. Share findings as a class.

4. Critical Analysis of Health Information (5 mins)

- ▶ Briefly discuss the importance of evaluating the reliability and validity of health information, especially online sources related to cancer.
- ▶ Encourage students to rely on reputable sources like the Cancer Council Australia, AIHW, and government health websites.

5. Wrap-up and Action Planning (5 mins)

- ▶ Review the key messages about sun safety and broader cancer prevention strategies.
- ▶ Ask students to individually reflect on one action they can take to reduce their risk of cancer (focusing on modifiable risk factors). They can write this down anonymously on a post-it note and place it on a designated board as a commitment.

ASSESSMENT

▶ Formative:

- Observation of student participation in discussions and activities.
- Analysis of responses during brainstorming sessions.
- Review of the “Understanding Cancer Basics” handout for comprehension.

▶ Summative (options):

- **Poster or Presentation:** Students create a visual or oral presentation on a specific type of cancer or a cancer prevention strategy, incorporating epidemiological data and health promotion approaches.
- **Information Pamphlet:** Students design an informative pamphlet about sun safety or another cancer prevention method, targeting a specific audience (e.g., teenagers, parents).
- **Short Written Response:** Students answer questions about the causes, prevention, and impact of cancer in Australia.

Differentiation:

- ▶ **For younger students (Year 7–8):** Focus on simpler explanations, more visual aids, and concrete examples. Activities can be more structured and guided.
- ▶ **For older students (Year 9–10):** Encourage more in-depth research, critical analysis of data, and exploration of complex health promotion models. They can engage in more independent learning and problem-solving tasks.
- ▶ Provide scaffolding for students with learning needs (e.g., simplified texts, graphic organizers, peer support).
- ▶ Offer extension activities for advanced learners (e.g., researching current cancer research, analysing media portrayals of cancer).

Extension Activities:

- ▶ Invite a guest speaker from a cancer support organisation or a dermatologist to talk to the class.
- ▶ Organise a sun safety awareness campaign within the school.
- ▶ Research and present on the role of genetics in cancer risk.
- ▶ Explore the ethical considerations surrounding cancer treatment and research.

What can you do to help?

You can run a Bandanna Day event at your school, to support kids and teens going through cancer. www.bandannaday.org.au/schools

POWERPOINT SLIDES

Here's a suggested structure and content for a PowerPoint presentation to support the lesson plan. You can adapt this based on your specific needs and the year level of your students.

PowerPoint Presentation: Understanding Cancer and Promoting Prevention

Slide 1: Title Slide

- ▶ **Title:** Understanding Cancer and Promoting Prevention
- ▶ **Subject:** PDHPE
- ▶ **Year Levels:** 7–10
- ▶ **Your Name/School Logo**
- ▶ **Image:** A relevant image, such as a healthy cell versus a cancerous cell (age-appropriate) or a sun safety image.

Slide 2: What is Cancer?

- ▶ **Title:** What is Cancer?
- ▶ **Key Points:**
 - Cancer is the uncontrolled growth and spread of abnormal cells.
 - Normal cell growth vs. Cancerous cell growth (use a simple diagram).
 - Tumours: Benign (non-cancerous) and malignant (cancerous).
- ▶ **Image/Diagram:** Visual representation of cell growth and tumours.

Slide 3: Cancer in Australia

- ▶ **Title:** Cancer in Australia
- ▶ **Key Points:**
 - Cancer is a leading cause of death in Australia.
 - Statistics: 1 in 2 Australians diagnosed by age 85 (or most up-to-date statistic).
 - Common types of cancer in Australia (e.g., skin, bowel, breast, lung).
- ▶ **Graph/Chart:** A simple graph showing cancer incidence or mortality rates in Australia (source: AIHW or Cancer Council).
- ▶ **Source:** Cite the source of your statistics (AIHW, Cancer Council, etc.).

Slide 4: Understanding Cancer (Simplified)

- ▶ **Title:** Understanding Cancer
- ▶ **Key Points:**
 - Simplified explanation of how cancer develops.
 - Focus on cell division and errors in the process.
- ▶ **Image/Diagram:** Simple diagram of a cell and the process of cell division.

Slide 5: Risk Factors for Cancer

- ▶ **Title:** Risk Factors for Cancer

► **Key Points:**

- Definition of a risk factor.
- Modifiable risk factors:
 - ▷ Sun exposure
 - ▷ Smoking
 - ▷ Diet
 - ▷ Physical inactivity
 - ▷ Alcohol consumption
- Non-modifiable risk factors:
 - ▷ Age
 - ▷ Family history/genetics

- **Images:** Visuals representing each risk factor (e.g., a person in the sun, a cigarette, healthy food, exercise).

Slide 6: The Importance of Sun Safety

- **Title:** The Importance of Sun Safety

► **Key Points:**

- Skin cancer is a major concern in Australia.
- Explanation of UV radiation (UVA, UVB) and its effects on the skin.
- Short-term and long-term consequences of sun exposure.

- **Image:** A graphic showing the effects of UV radiation on the skin.

Slide 7: Slip, Slop, Slap, Seek, Slide

- **Title:** Slip, Slop, Slap, Seek, Slide

► **Key Points:**

- Explanation of each step:
 - ▷ Slip on protective clothing.
 - ▷ Slop on SPF 30 or higher sunscreen.
 - ▷ Slap on a broad-brimmed hat.
 - ▷ Seek shade.
 - ▷ Slide on sunglasses.
- Emphasize the importance of using all steps.

- **Images:** Visuals for each of the “Slip, Slop, Slap, Seek, Slide” steps.

Slide 8: Sunscreen and UV Index

- **Title:** Sunscreen and the UV Index

► **Key Points:**

- How sunscreen works (SPF rating).
- Proper application of sunscreen.
- Explanation of the UV Index and its relevance.
- When sun protection is most important (times of day).

- ▶ **Image:** A graphic showing how to apply sunscreen correctly and a chart of the UV Index.

Slide 9: Other Prevention Strategies

- ▶ **Title:** Reducing Your Risk
- ▶ **Key Points:**
 - Healthy diet: Emphasize fruits, vegetables, and whole grains.
 - Regular physical activity.
 - Maintaining a healthy weight.
 - Avoiding tobacco products.
 - Vaccinations (e.g., HPV).
- ▶ **Images:** Pictures of people engaging in healthy behaviours.

Slide 10: What is Health Promotion?

- ▶ **Title:** What is Health Promotion?
- ▶ **Key Points:**
 - Definition of health promotion (as per the Ottawa Charter).
 - The goal of health promotion.
 - Empowering people to improve their health

Slide 11: How Health Promotion Works

- ▶ **Title:** How Health Promotion Works
- ▶ **Key Points:**
 - Individual level:
 - ▷ Education campaigns
 - ▷ Smoking cessation programs
 - ▷ Dietary advice
 - Community level:
 - ▷ Smoke-free public spaces
 - ▷ Workplace wellness programs
 - ▷ Cancer screening programs
- ▶ **Images:** Examples of individual and community health promotion strategies.

Slide 12: Reliable Health Information

- ▶ **Title:** Finding Reliable Information
- ▶ **Key Points:**
 - Importance of using trusted sources.
 - Recommended sources:
 - ▷ Cancer Council Australia
 - ▷ Australian Institute of Health and Welfare (AIHW)
 - ▷ Government health websites

- ▷ Reputable medical journals
 - Tips for evaluating online health information.
- ▶ **Logos:** Include logos of Cancer Council Australia and AIHW.

Slide 13: Reducing Cancer Risk

- ▶ **Title:** Reducing Cancer Risk
- ▶ **Key Points:**
 - Summarize key ways to reduce cancer risk:
 - ▷ Sun safety
 - ▷ Healthy lifestyle
 - ▷ Not smoking
 - ▷ Regular check-ups
- ▶ **Image:** A positive image that encourages healthy choices.

Slide 14: Action Plan (Optional)

- ▶ **Title:** My Action Plan
- ▶ **Activity:**
 - What can you do to reduce your risk?
 - Encourage students to think about one change they can make.
- ▶ This slide can be omitted if the action plan is done as a separate activity.

Slide 15: Questions?

- ▶ **Title:** Questions?

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