Inquiry-Based Learning in Geography

"Tell me and I forget, show me and I remember, involve me and I understand" – Chinese Proverb

Canberra Geography Roadshow November 2015

Dr Grant Kleeman

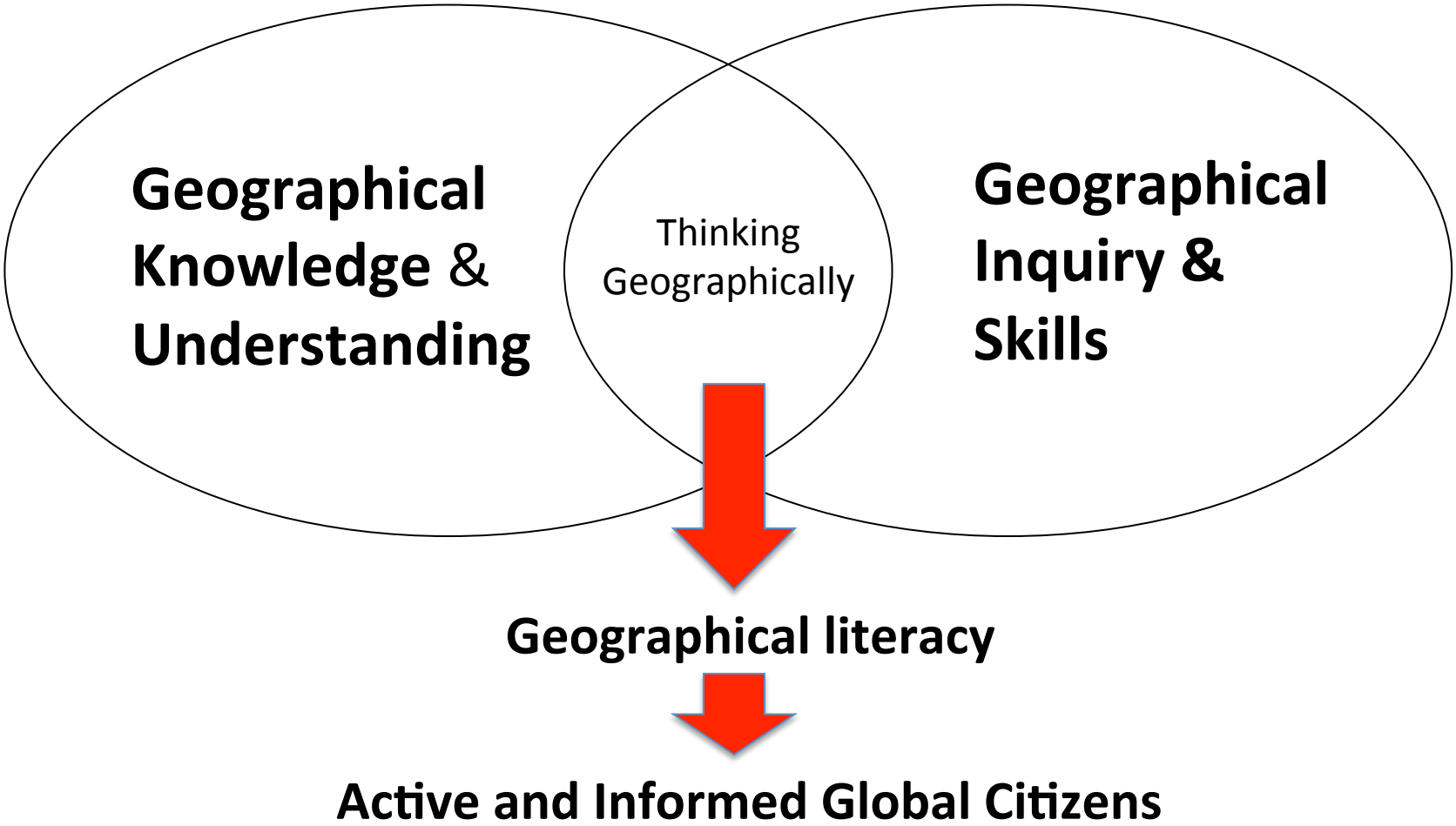
Macquarie University-Sydney

Australian Curriculum: Geography

"Geography enables students to **question** why the world is the way it is, and reflect on their relationships with and responsibilities for that world."

"Geography uses **an inquiry approach** to assist students to make meaning of their world. It teaches them to respond to questions in a geographically distinctive way, plan an inquiry; collect, evaluate, analyse and interpret information; and suggest responses to what they have learned. They conduct fieldwork, map and interpret data and spatial distributions, and use spatial technologies." (ACARA Rationale – Version 7.5)

Two Curriculum Strands



Geographical Knowledge a Understanding

Geographical Knowledge – the facts, generalisations, principles, theories and models developed in geography.

This knowledge is dynamic and its interpretation can be contested.

Geographical Understanding – the ability to see the relationships between aspects of knowledge and construct explanatory frameworks to illustrate these relationships. It is also the ability to apply this knowledge to new situations or to solve new problems.

Geographical Inquiry and Skills

Geographical Inquiry involves individual or group investigations that start with geographical questions and proceed through the collection, evaluation, analysis and interpretation of information to the development of conclusions and proposals for actions. Inquiries may vary in scale and geographical context.

Geographical Skills are the techniques that geographers use in their investigations, both in fieldwork and in the classroom.

Geographical Skills are described in the curriculum under five sub-headings representing the stages of a complete investigation:

- *Observing, questioning and planning*
- *Collecting, recording, evaluating and representing*
- *Interpreting analysing and concluding*
- *Communicating*
- *Reflecting and responding*

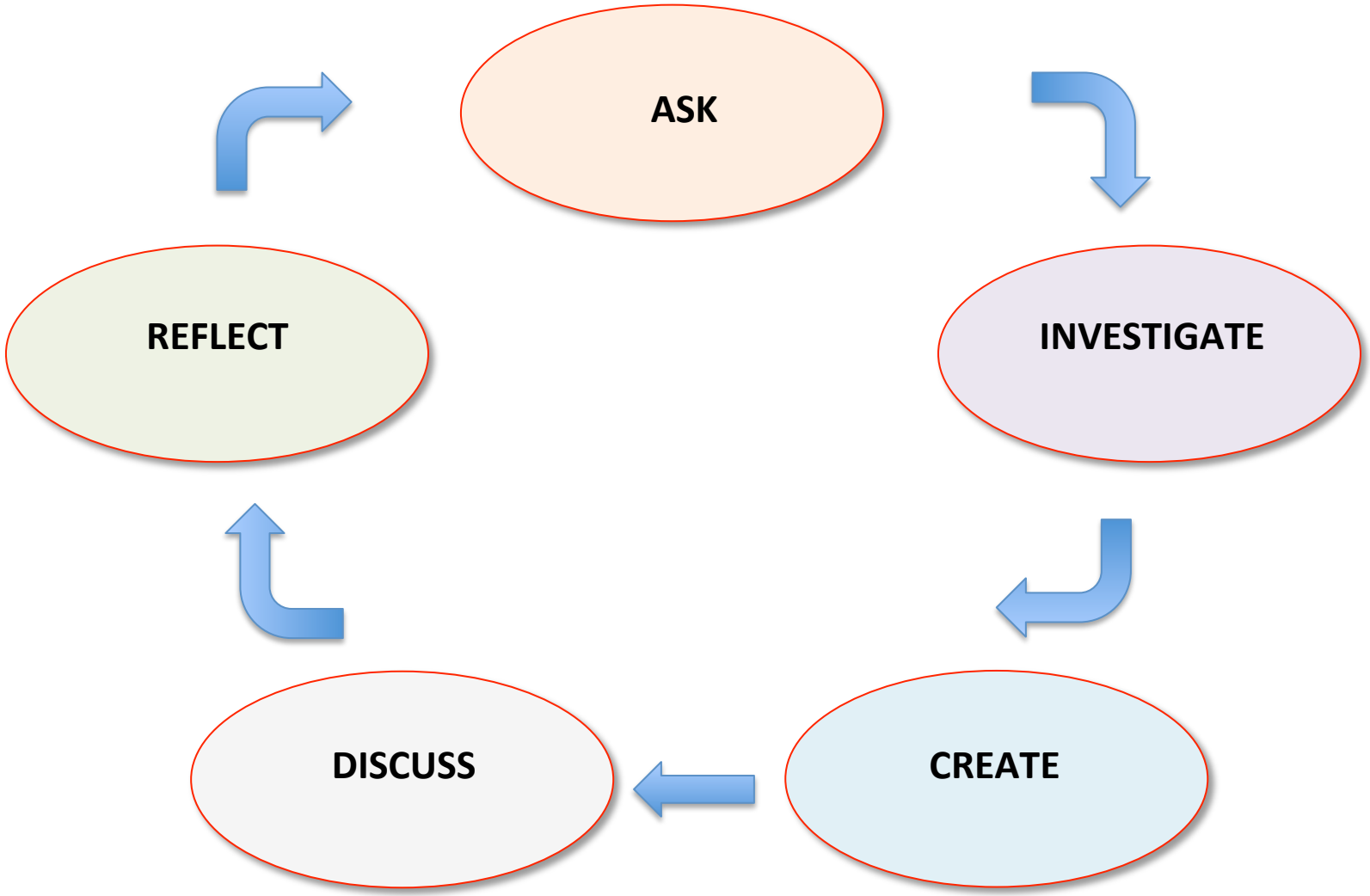
What then do we mean by inquiry-based learning?

Inquiry-based learning starts by posing questions, problems or scenarios—rather than simply presenting established facts or portraying a smooth path to knowledge. The process is often assisted by a facilitator (the teacher).

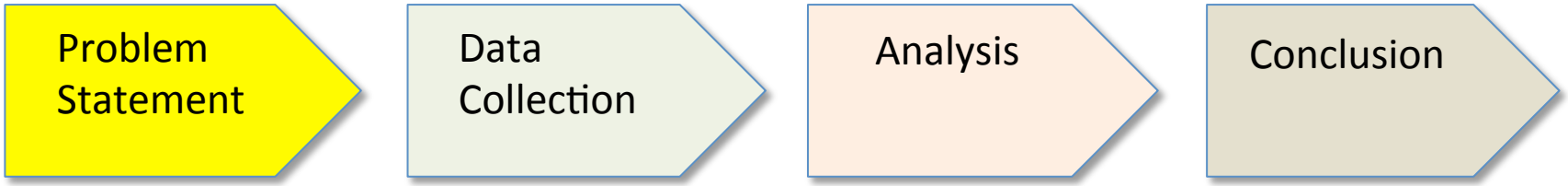
"Inquiry" is, therefore, defined as "a seeking for truth, information, or knowledge – seeking information by questioning."

"We learn more by looking for the answer to a question and not finding it than we do from learning the answer itself."
Lloyd Alexander, American Author

The Inquiry Cycle



Inquiry-based Teaching Strategy



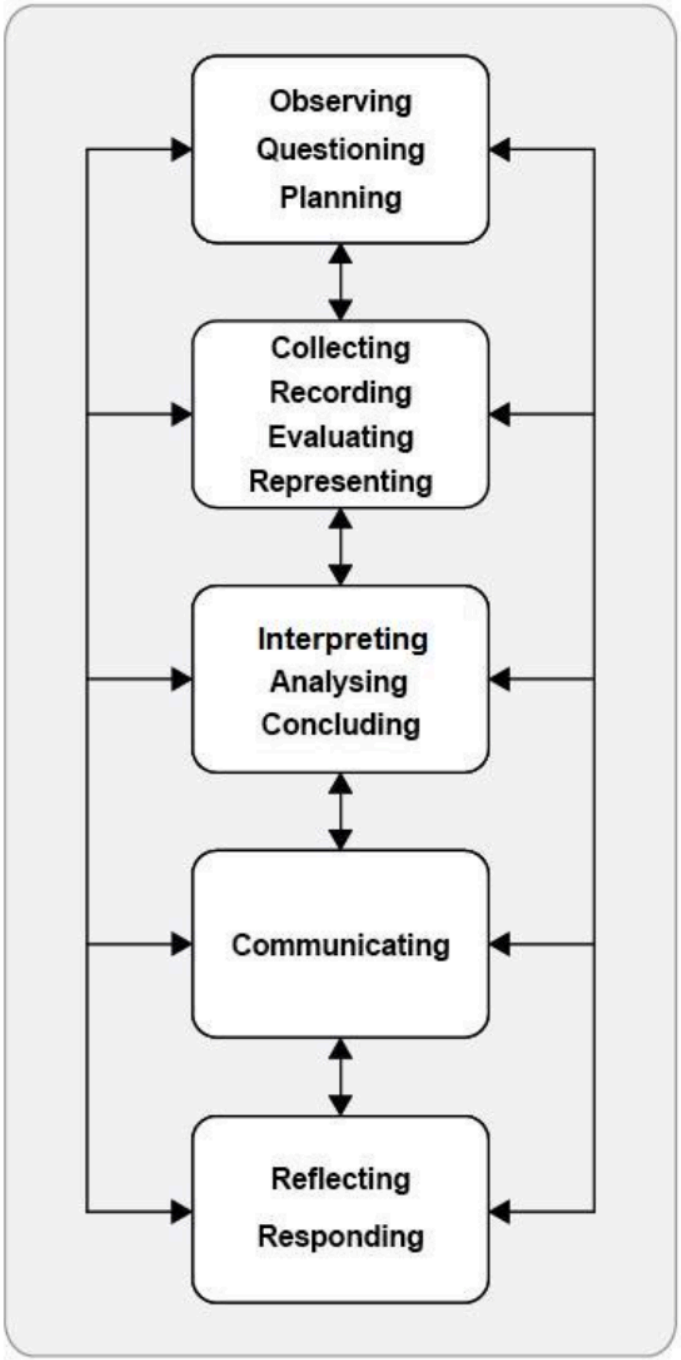
Determine what is to be investigated and formulate a question or hypothesis.

Gather information about the topic from appropriate sources.

Examine and discuss the findings and provide explanation or clarity.

Based on analysis determine solutions related to the original problem statement.

Inquiry-learning cycle



Geogspace

http://www.geogspace.edu.au/support-units/geographical-inquiry/gi-overview.html

The Power of Inquiry-based Learning

The power of an inquiry-based approach to teaching and learning is its potential to enhance intellectual engagement and foster deep understanding through the development of a hands-on, minds-on and 'research-based disposition' towards teaching and learning.

BUT!

Learning Geography through inquiry does not mean simply finding out answers to questions.

In order to develop geographical understanding it is important for students to **make sense** of the information they encounter by **making connections** of all sorts: between their existing understanding and new knowledge and between different pieces of information.

Making sense is at the heart of learning in any discipline. It involves being able to reason and to develop and evaluate arguments.

Rolls and Responsibilities

Students are:

- Learning from one another
- Actively seeking solutions rather than having the answer provided
- Encouraged to design investigations
- Developing useful critical thinking and problem-solving skills
- Gaining new perspectives on exploring content and questions

Teachers are:

- The “coach on the side”
- Supporting mind development and curiosity
- Encouraging taking risks and sharing ideas
- Facilitating “minds on” learning
- Extending traditional lessons to inspire conversation and problem solving

The Teacher:

- **Devises inquiry-based units of work** – Using questions rather than topics as heading for units of work. Questions that are rigorous, challenging and intriguing.

- **Demonstrates subject expertise** (PCK) – Geographical expertise is essential, especially in terms of:

    - Selecting key questions
    - Selecting resources
    - Designing tasks and activities

- **Facilitates and scaffolds learning**

Constructivist pedagogies

Theoretical grounding

Inquiry-based learning is an example of a constructivist approach to learning

Constructivism holds that humans construct knowledge and meaning from their experiences. It is not a specific pedagogy rather it informs classroom teaching – the role of the teacher and the responsibility of the learner.

Vygotsky, Piaget & Bruner believed that we can make sense of the world only through actively making sense of it for ourselves; knowledge cannot be transmitted to us ready-made.

The young person is not, however, alone in the world 'discovering' meaning or developing conceptual understanding. This discovery is assisted or mediated by family members, teachers and peers.

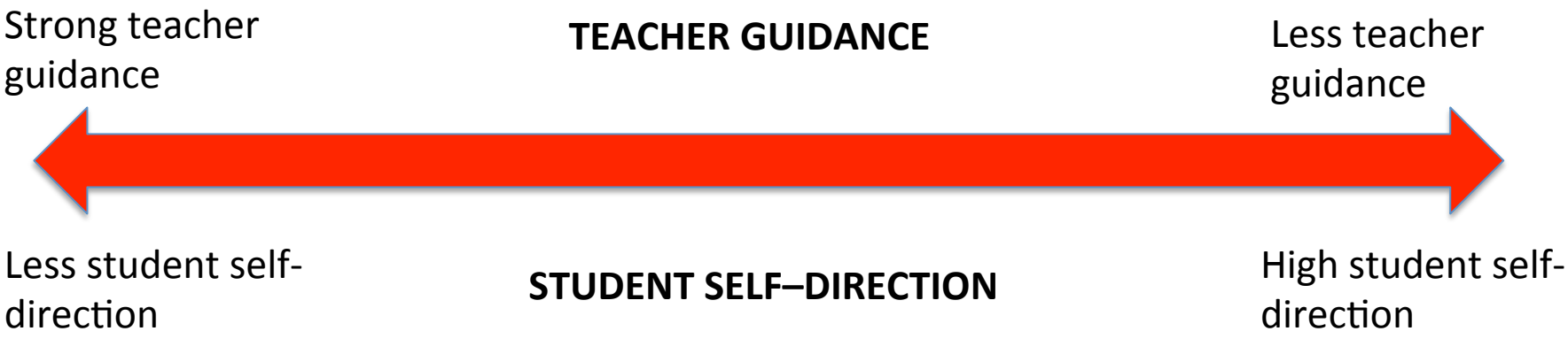
Jerome Bruner called this assistance **scaffolding**.

Scaffolding is:

- an instructional method whereby the teacher provides temporary support while employing strategies designed to help students accept responsibility for their learning.

- in learning, the gradual withdrawal of teacher support thus transferring to the student more and more autonomy.

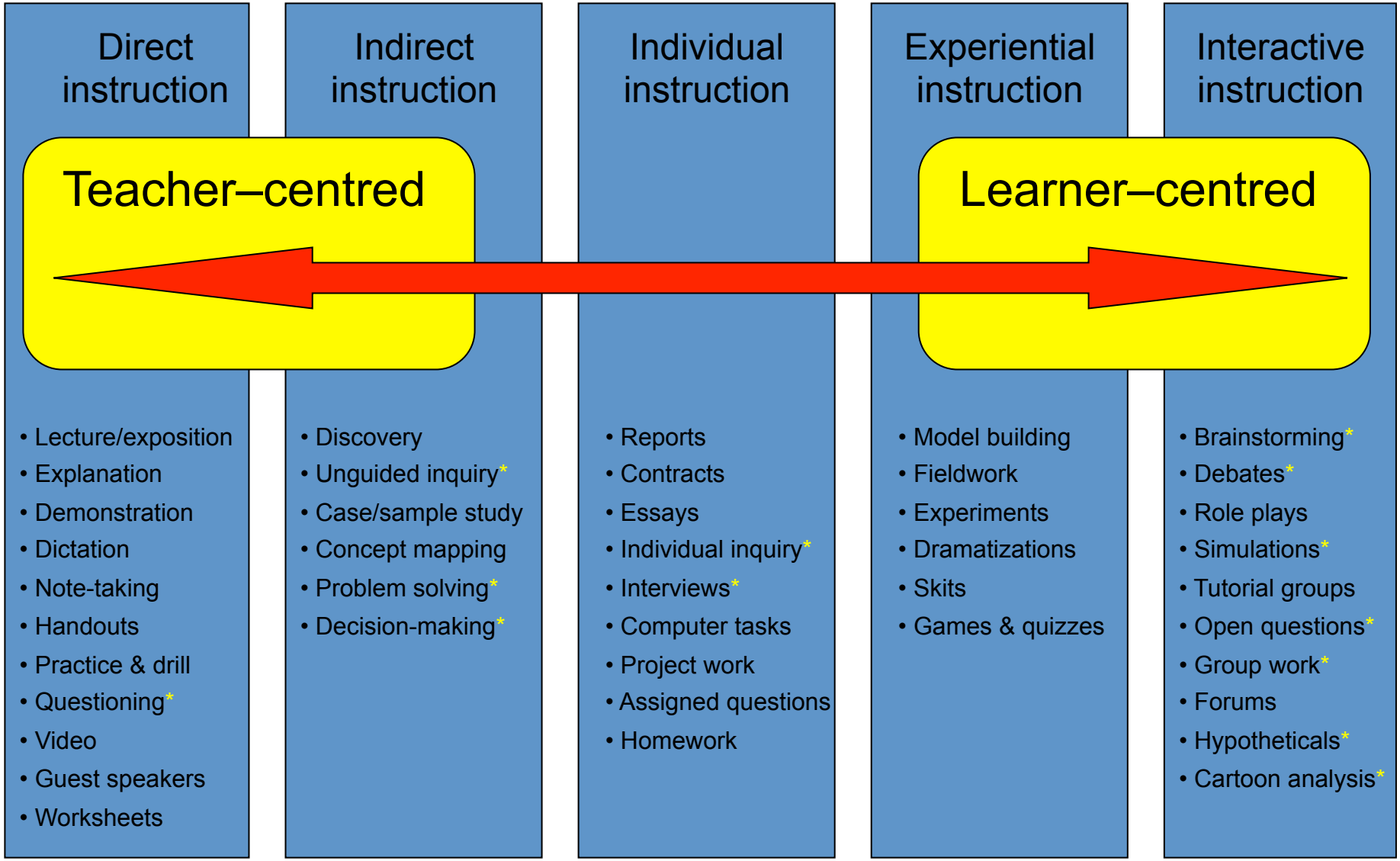
- Support offered by teachers characterised by explicit teaching of skills and knowledge to assist students to develop their conceptual understanding.



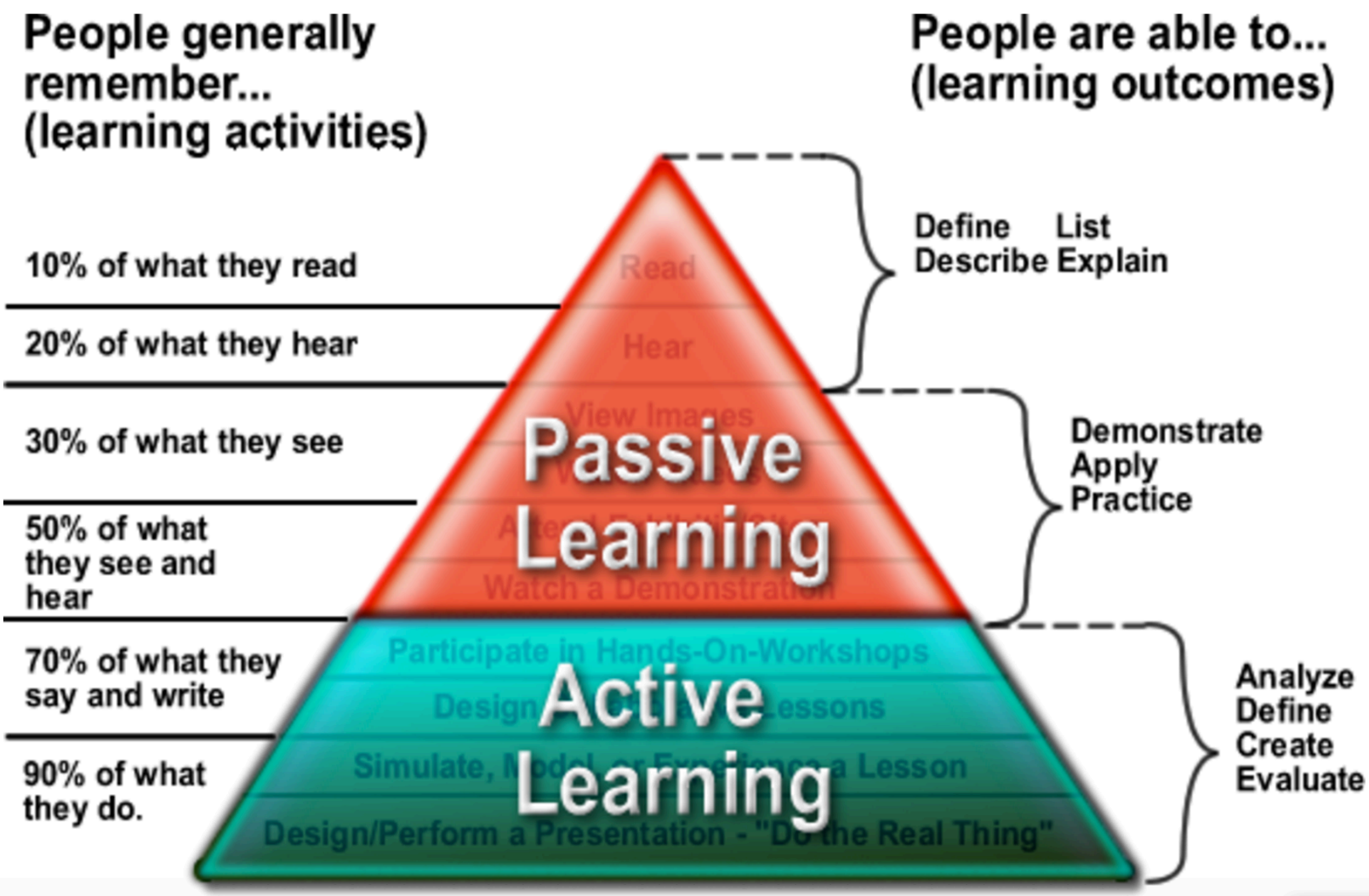
Scaffolding – the types of assistance that might be given when students are unable to complete a problem-solving activity:

- Providing the first step in a solution by asking a leading question
- Explaining
- Supplying information
- Questioning
- Correcting
- Making the student explain.

Teaching and Learning Strategies



* Promoting critical thinking


People generally remember... (learning activities)
People are able to... (learning outcomes)
10% of what they read
20% of what they hear
30% of what they see
50% of what they see and hear
70% of what they say and write
90% of what they do.
Read
Hear
View Images
Watch a Demonstration
Passive Learning
Participate in Hands-On-Workshops
Design/Perform a Presentation - "Do the Real Thing"
Active Learning
Define List
Describe Explain
Demonstrate
Apply
Practice
Analyze
Define
Create
Evaluate

Promoting critical thinking

The process by which individuals use reflective, reasoned, rational thinking to gather, interpret and evaluate information in order formulate an opinion and judgment. It also promotes a deeper level of engagement with issues.

By analysing the ways in which knowledge is constructed we enhance our understanding of the ways our feelings, attitudes and values are manipulated.

These understandings enable us to identify and challenge dominant discourse and evaluate various alternatives.

Empowered by the understandings, we are better places to become agents of social change and work towards the removal of inequalities and injustices.

Contrasted with 'direct' instruction

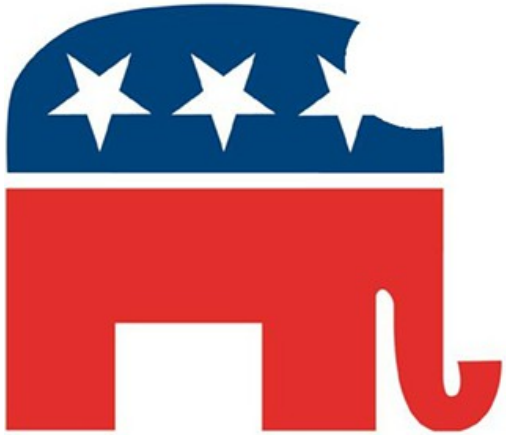
Direct Instruction involves:

- Instructional approaches that are structured, sequenced, and led by the teacher.
- The **explicit teaching** of the curriculum – Instruction 'directed' at students.
- Flexible **ability grouping**, with children placed where they are at, within this curriculum sequence
- **Mastery learning**, where children progress to the next level only when they have mastered the level they are at.

In Australia, DI is closely link to the work of Melbourne academic Prof. John Hattie.

Critical thinking is not without its detractors!

”Knowledge-Based Education – We oppose the teaching of Higher Order Thinking Skills (HOTS) , values clarification, critical thinking skills and similar programs that are simply a relabeling of Outcome-Based Education (OBE) (mastery learning) which focus on behavior modification and have the purpose of challenging the student’s fixed beliefs and undermining parental authority.”



Texas GOP Policy Platform

Other gems:

- Abstinence-only sex education
- Trying juveniles as adults
- Faith-based drug rehabilitation
- Oppose the UN’s Convention on the Rights of the Child
- Flat rate income tax
- Repealing the minimum wage (suck it, wage slaves!)
- Opposition to red light cameras

Questioning

Types of Questions

Question Type	Applied to Coastal Erosion
Focusing on factual information	In which parts of NSW coast is eroding most quickly? Why is this important to some people?
Focusing on understanding concepts	What do you understand by coastal erosion and long-shore drift?
Focusing on geographical sources of evidence	What evidence is there of coastal erosion of Newcastle's coastline? What evidence is there about the rate of change?
Focusing on reasoning about process	What factors affect coastal erosion? To what extent can erosion be prevented?
Focusing on different viewpoints	Why do people living on different parts of the coast have different viewpoints about building coastal defences?
Probing assumptions	What assumptions are behind different views? What ways do different groups see the world?
Asking for judgements or conclusions	Should we allow nature to take its course and let the coast erode naturally?
Asking for opinions on ethical matters	Is it important to protect coastal areas of spiritual significance to Indigenous Australians?

Characteristics of a good inquiry question:

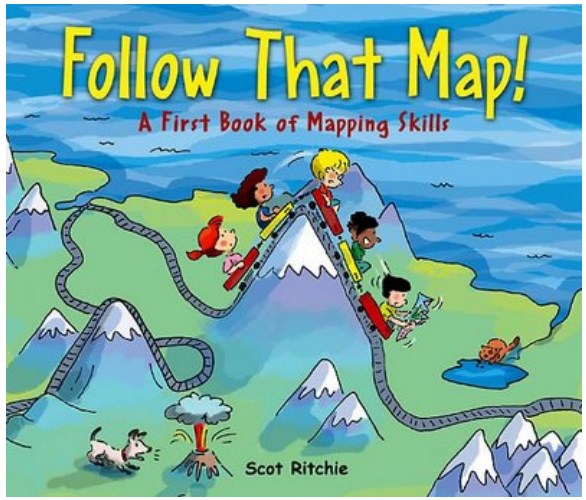
- Capture the interest and imagination of students
- Place an aspect of geographical thinking, concept or process at the forefront of students' mind
- Result in tangible, lively, substantial, enjoyable learning experience through which students can genuinely answer the inquiry question.

Questioning informed by Bloom

Bloom's categories	Definition
Evaluation	Judgements about the values of materials and methods for a given purpose. Evaluated against some criteria.
Synthesis	Putting parts together to form a new whole. Production of a unique communication. Ability to form hypothesis.
Analysis	Breaking down the constituent elements
Application	The use of ideas in particular and concrete situations
Comprehension	Ability to grasp meaning of material. Translations, Interpretation and Extrapolation.
Knowledge	Recall of specific information. Remembering previously learned material.

Basic Inquiry Questions

- What is the place like?
- Why is the place like it is?
- How is this place connected to other places?
- How is this place changing?
- How would it feel like to live in this place?



Using children's geographies (especially in the early years) – The geographies that affect children: change and its impact in their local area.

Broadening the Inquiry approach

- What is it?
- Where is it?
- What is it like?
- How did it come to be like this, and why?
- How and why might it change and what are the alternatives?
- What different viewpoints and opinions are there, and why?
- What impact is change having, and why?
- What should happen next, and why?
- What do I think/feel/do about this, and why?
- How is it like/different from other examples, and why?

Controversial Issues

Why are some issues controversial?

- There is insufficient evidence to support a particular theory or explanation
- There might be differences of interpretation
- There are different opinions about what might be done
- The may be ethical reasons

Why should controversial issues be investigated in school geography?

- The present geography of the world has been shaped by decisions made in the past
- Many current issue have geographical dimensions
- Geography is a political subject
- Values and ideologies are inherent in geographical knowledge
- The study of controversial issues can equip students to guard against indoctrination
- Students are interested in current issues and want to study them in school
- Students can learn a wide range of skills through the study of controversial issues

Stance of the teacher: Balanced, neutral, or committed

Inquiry-based learning
in and outside the classroom

Fieldwork

Fieldwork is 'doing' Geography. It involves studying Geography outside the classroom.

Fieldwork can be categorised according to its degree of student-centredness.

- The more traditional, **teacher-centred approaches** to fieldwork involve explanation or lectures, note-taking and direct observation. Under such conditions there is little scope for active student involvement. At best students are required to observe, describe and explain features of the environment using previously acquired knowledge.

- A more effective approach is one that incorporates the processes of **field research**. It involves students observing, questioning, planning, collecting, recording, evaluating, representing, analysing, concluding, communicating, reflecting and responding. It embraces a problem-solving focus.

Example: Assessing Liveability

The term 'liveability' refers to the characteristics of a city that contribute to the quality of life experienced by those who live in, or visit, the place.

Task:

- Which is the most liveable neighbourhood?
- Students gather data in the field assessing the liveability of selected neighbourhoods.
- Present data, undertake analysis (make comparisons) and determine a ranking.
- Discuss the findings.
- Reflect on the process.

Criteria	Score 1 Very poor 2 Poor 3 Satisfactory 4 Good 5 Very good
Category 1: Environment	
• Temperature/humidity	1 2 3 4 5
• Quality of urban design and architecture	1 2 3 4 5
• Access to parks and gardens	1 2 3 4 5
• Amenity of streetscapes	1 2 3 4 5
• Maintenance of public spaces	1 2 3 4 5
Category 2: Cultural	
• Quality of community recreational facilities	1 2 3 4 5
• Availability of places of worship	1 2 3 4 5
• Diversity and quality of restaurants	1 2 3 4 5
• Availability of public libraries	1 2 3 4 5
• Range of entertainment venues	1 2 3 4 5
Category 3: Economic	
• Range of employment opportunities	1 2 3 4 5
• Access to affordable housing	1 2 3 4 5
• Access to consumer goods and services	1 2 3 4 5
Category 4: Infrastructure	
• Quality of road network	1 2 3 4 5
• Quality of public transport	1 2 3 4 5
• Quality of telecommunications infrastructure	1 2 3 4 5
• Availability of good quality housing	1 2 3 4 5
• Provision of utilities—water, electricity, sewerage	1 2 3 4 5
• Availability of cycle ways	1 2 3 4 5
Category 5: Education	
• Availability of private schools	1 2 3 4 5
• Quality of public schools	1 2 3 4 5
• Access to post-school educational institutions	1 2 3 4 5
Category 6: Health care	
• Quality of private health care	1 2 3 4 5
• Quality of public health care	1 2 3 4 5
• Availability of aged-care facilities	1 2 3 4 5
Category 7: Law and order	
• Amount of petty crime	1 2 3 4 5
• Amount of violent crime	1 2 3 4 5
• Graffiti and vandalism	1 2 3 4 5
• Sense of personal safety	1 2 3 4 5

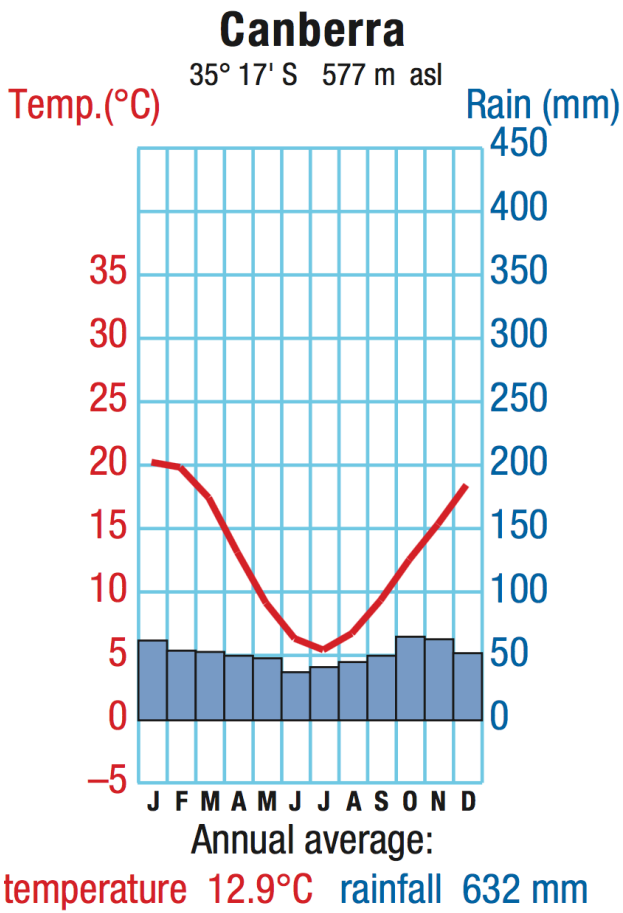
‘Five key Points’

In this activity students examine geographical source material and identify key points in the form of statements.

Procedure:

- Students study the stimulus material.
- Students, working individually or in pairs, write down five key statements, giving an example of each.
- Students share their ideas with another person or small group.
- Students present their findings to the class. The teacher list these on the whiteboard.
- Discuss the list of statements as a class. Which are the most important? Why?
- As a class identify the generalisations that can be made from the different geographical stimulus items.
- Students record the key points agreed by the class.

Example: Students study the climate graph of Canberra and identify five key points. Key points are share between pairs; they agree on the five points and exemplify them with details from the graph. They key points are shared as a class.



Some of the points which might be made include:

- Maximum temperature figure
- Minimum temperature figure
- Seasonal variations in temperature
- Range of temperature
- Distribution of rainfall throughout the year
- Total rainfall figure
- How the pattern of rainfall relates to the pattern of temperature
- What the figures suggest about the location of the place.

Intelligent guesswork

(Informed guessing)

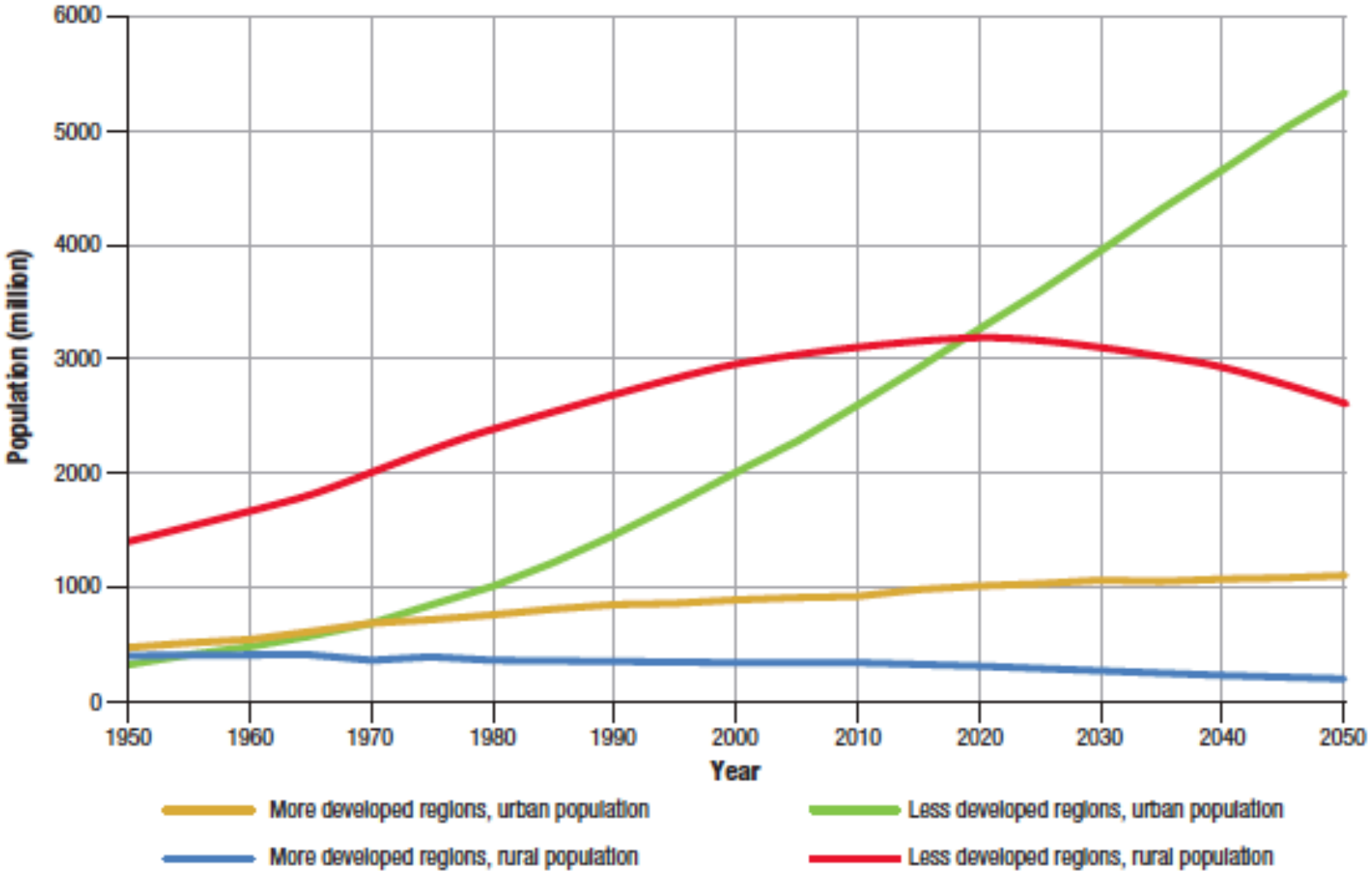
- A strategy that involves students making informed guesses about something. For example, guessing where a photograph was taken (Where in the world?), speculating on how a landform was formed, guessing what a set of statistics might reveal.
- Constructivist in the sense that the importance of existing knowledge is taken into account when introducing new knowledge. Intelligent guesswork is an effective way of eliciting students' prior knowledge and understanding.

Procedure:

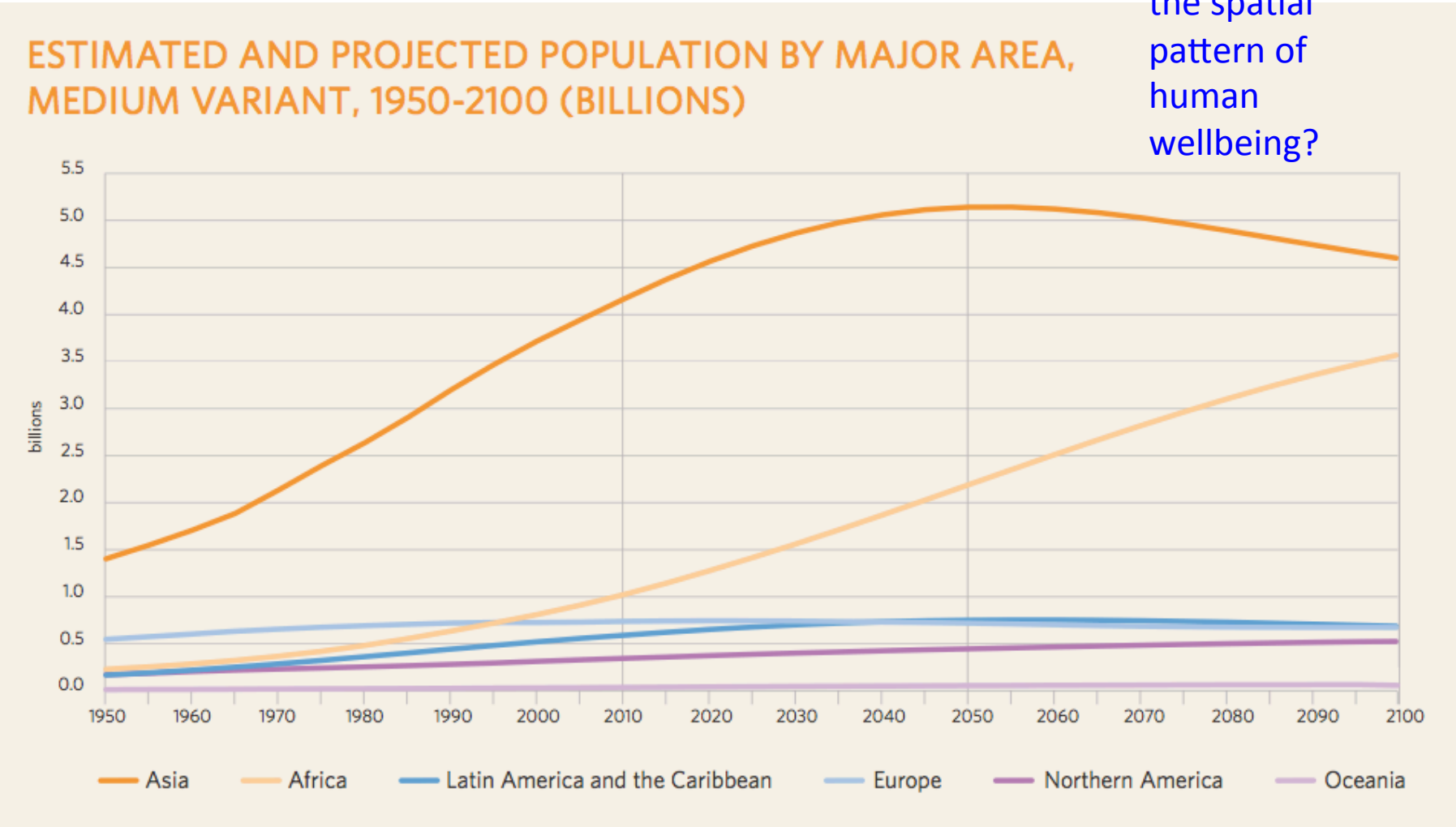
- Pose the question in general terms
- Ask students to speculate individually or in small groups
- Gather information and ideas from the class
- Provide the answer/s
- Debrief. In what ways has the activity changed previously held knowledge?

What are the implications of these trends for world population growth?

What happens to fertility rates a people move to urban areas?

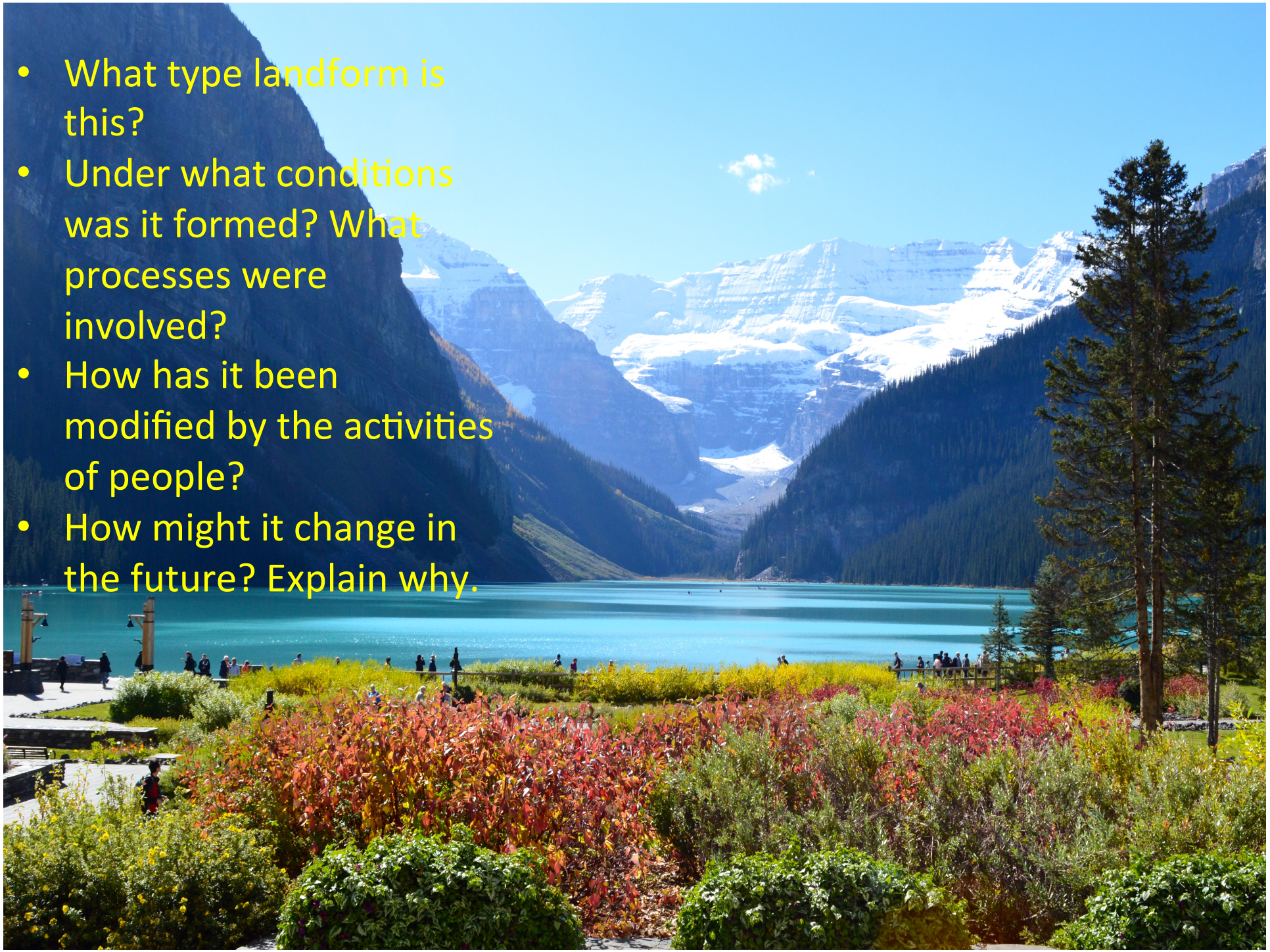


What are the implications of these trends for the spatial pattern of human wellbeing?



Using Photographs

- Types: Ground level, oblique, vertical aerial and satellite.
- Photographs enable students to visualise places and events that would otherwise be inaccessible.
- When students look at photographs they ask questions about what they see, what is going on, and why it looks the way it does.
- Activities designed to enable children to 'see' and analyse photographs include:
  - Ranking/sorting photographs. For example, distinguishing between places dominated by elements of the biophysical, managed and built environment; scenic appeal; like/dislike, damaged/improved. Students explain their decisions.
  - Captioning photographs
  - Using them as the basis of a story
  - Where is it? Students asked to say where they think it is and justify their answer.


What type landform is this?
Under what conditions was it formed? What processes were involved?
How has it been modified by the activities of people?
How might it change in the future? Explain why.

Using photographs to study change over time

1986

2014

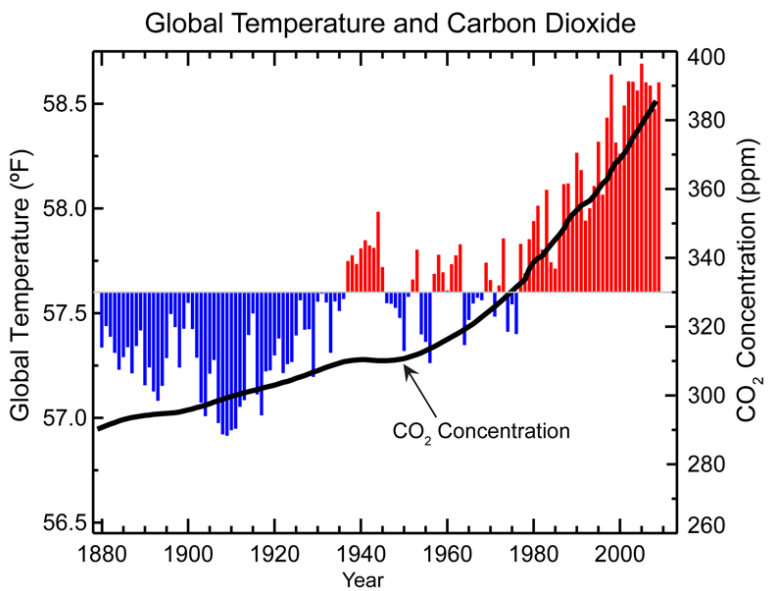
Iceland's fourth largest volcano Katla

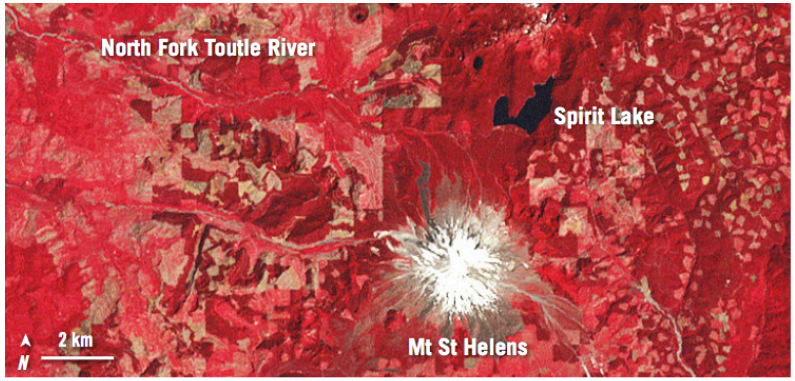
Describe what happened to Katla's ice cap between 1986 and 2014. Why might this have occurred? How might this change be addressed?

1941 1950 2000

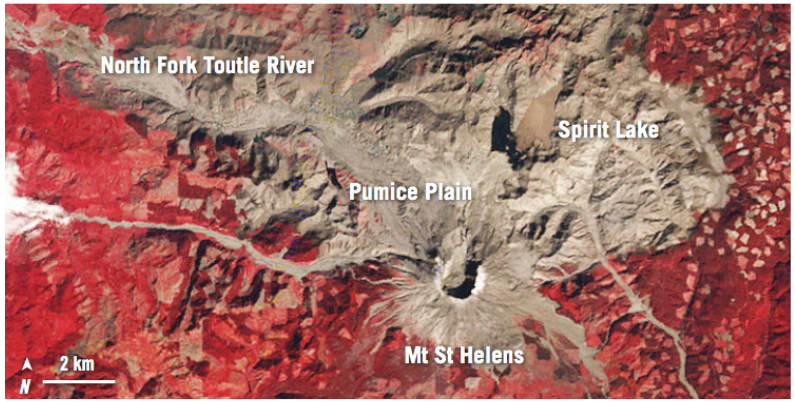
Muir and Riggs Glaciers, Alaska

What is the relationship between the retreat of the Muir and Riggs Glacier and the trend in global temperatures and atmospheric CO2 concentrations shown in the graph?

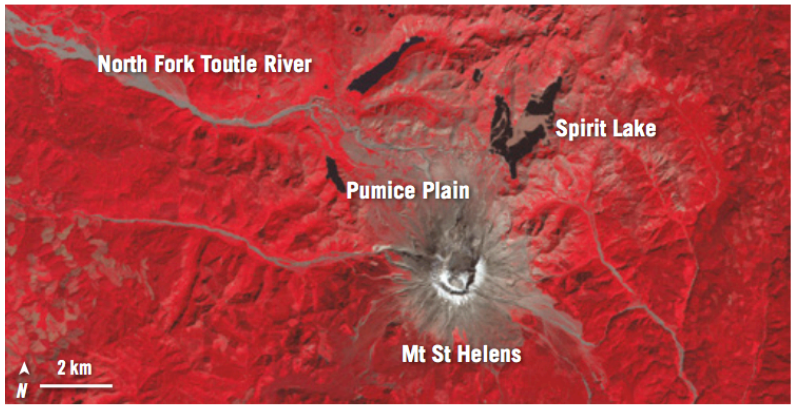




1979



1980



2009

1984

2011

Mt St Helens before and after the 1980 eruption.

Describe what you can see in this photograph?

Why are people forced to live in such conditions?

Where do you think the photograph was taken?

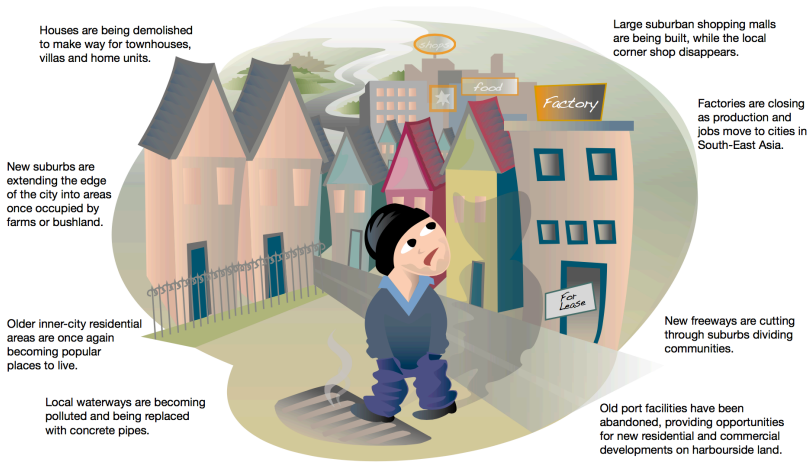
What can be done to address the issue?

Using Illustrations

How many of these changes apply to the place in which you live?

How is the neighbourhood/town in which you live changing?

What are the processes responsible for the change?



Are the changes for the better? Explain your answer?

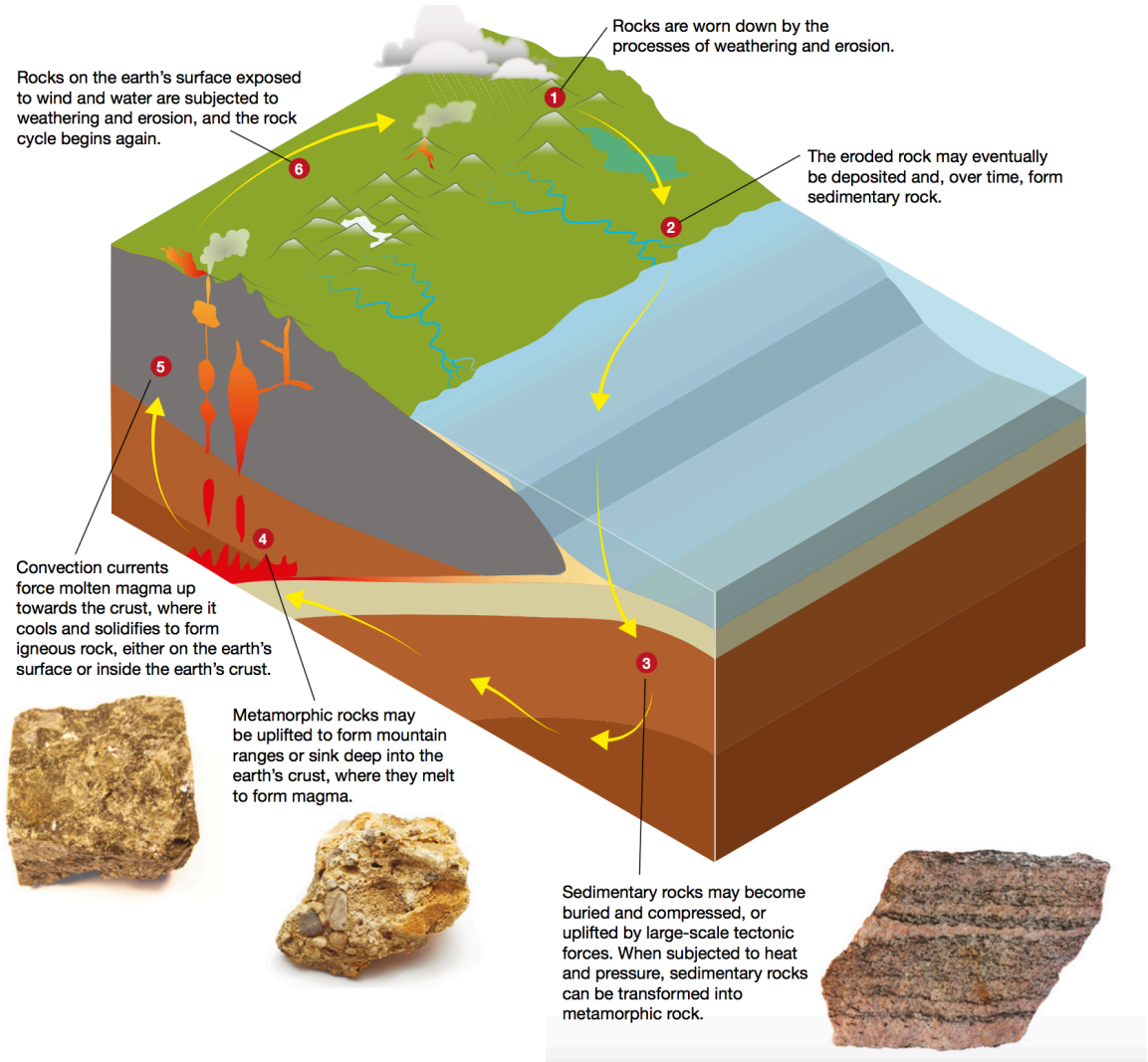
How might it change for the better?

Using Illustrations 2

Reflect on your view of the relationship between people and the environment. How has the study of Geography changed that view? Which of the four alternatives shown best fits your view of the relationship between people and the environment?

Values clarification activity

Using Illustrations 3

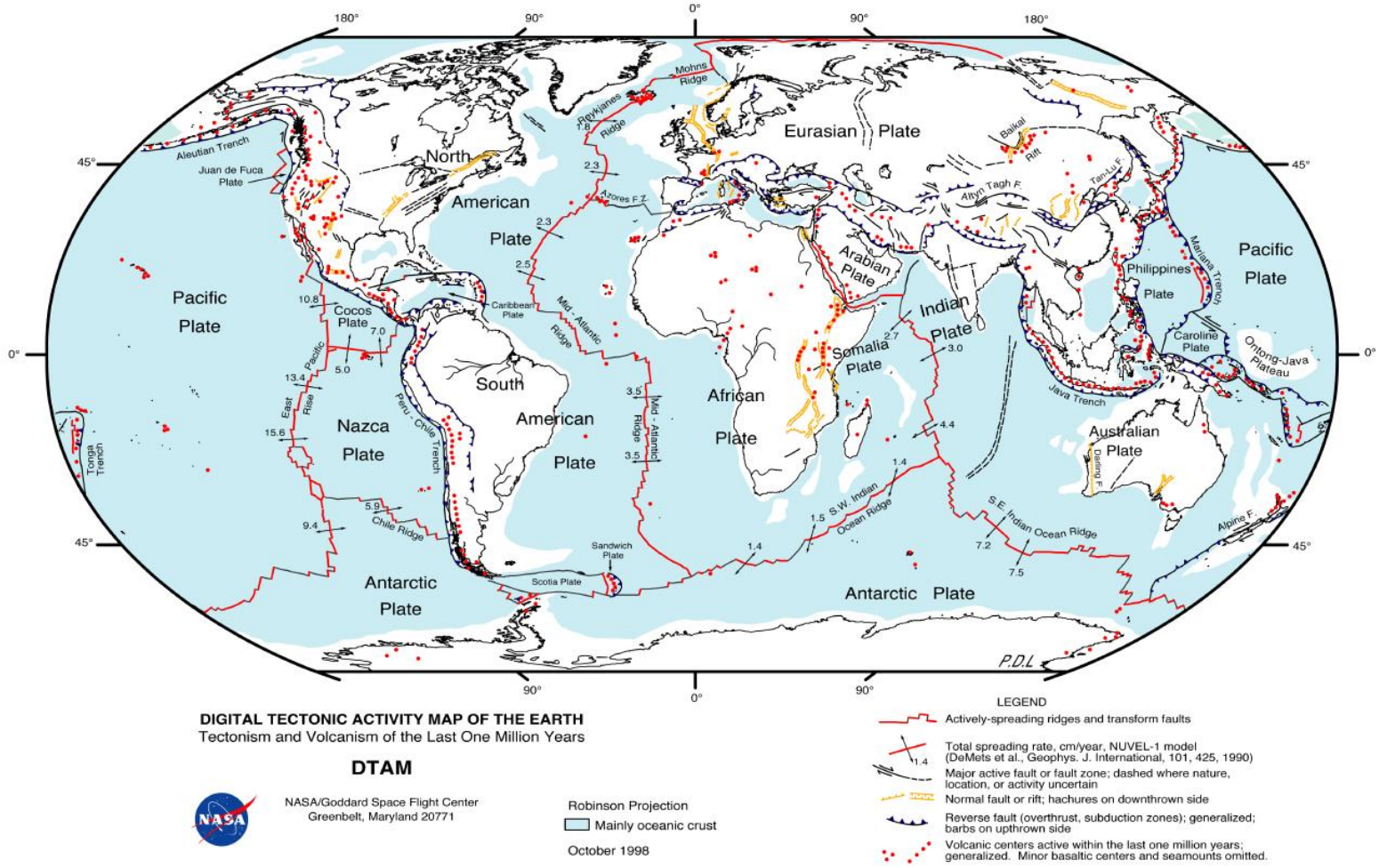


Explain in your own words the Rock Cycle.

Under what conditions do sedimentary, metamorphic and igneous rocks form?

Using maps

What patterns and relationships can you identify on this map of the Earth's tectonic activity?



DIGITAL TECTONIC ACTIVITY MAP OF THE EARTH
Tectonism and Volcanism of the Last One Million Years

DTAM

NASA/Goddard Space Flight Center
Greenbelt, Maryland 20771

Robinson Projection
Mainly oceanic crust

October 1998

LEGEND
- Actively-spreading ridges and transform faults
- Total spreading rate, cm/year, NUVEL-1 model (DeMets et al., Geophys. J. International, 101, 425, 1990)
- Major active fault or fault zone; dashed where nature, location, or activity uncertain
- Normal fault or rift; hachures on downthrown side
- Reverse fault (overthrust, subduction zones); generalized; barbs on upthrown side
- Volcanic centers active within the last one million years; generalized. Minor basaltic centers and seamounts omitted.

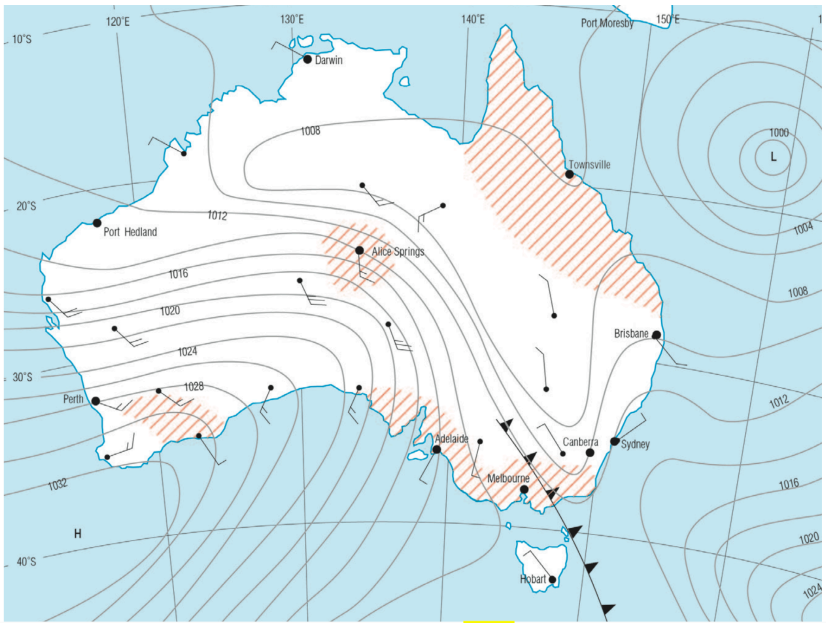
G221.001

Using Weather Maps

What's the weather like in Darwin?

Why is it raining along the Queensland coast?

Is this weather map typical of summer or winter? Explain why



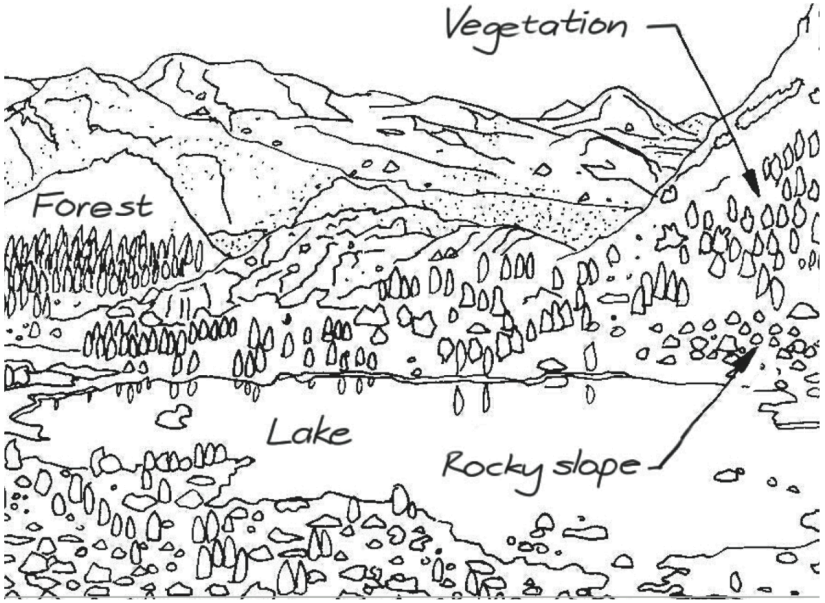
What's the weather like in Sydney and how might it change in the next 24 hours?

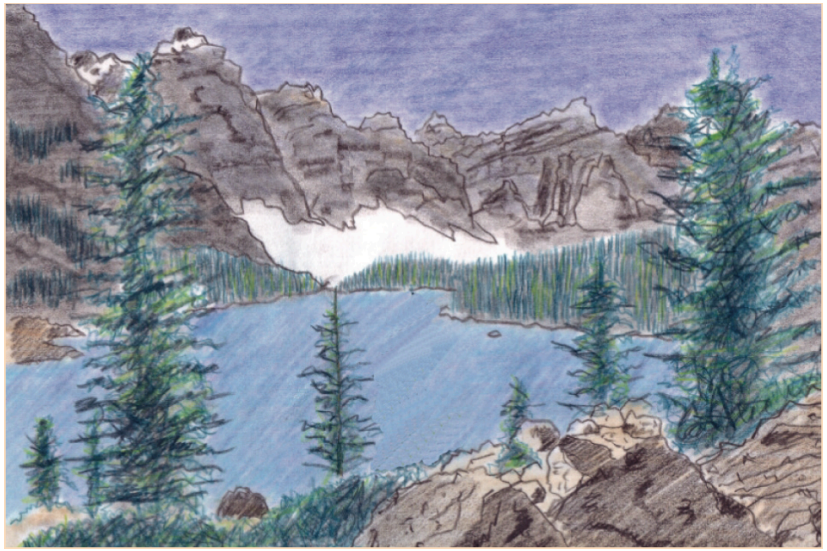
What is the weather like in Perth?

What type of weather is Adelaide experiencing?

What kind of weather has Melbourne experienced in the last 24 hours?

Task: You asked to prepare the weather report for the local television station. Use the questions above to help you prepare the report.





Drawing photosketches to highlight features of the biophysical environment.

A feeding centre in Mogadishu fills with refugees coming to the city to escape drought Photograph: Robin Hammond/Panos

Children are tagged for identity and given as much help as is available Photograph: Robin Hammond/Panos

Families in desperate need of food and water queue in Dadaab Photograph: Robin Hammond/Panos

Raha Abdi Nor has brought her surviving children to Banadir Hospital in Mogadishu where they are being treated for severe malnutrition Photograph: Robin Hammond/Panos

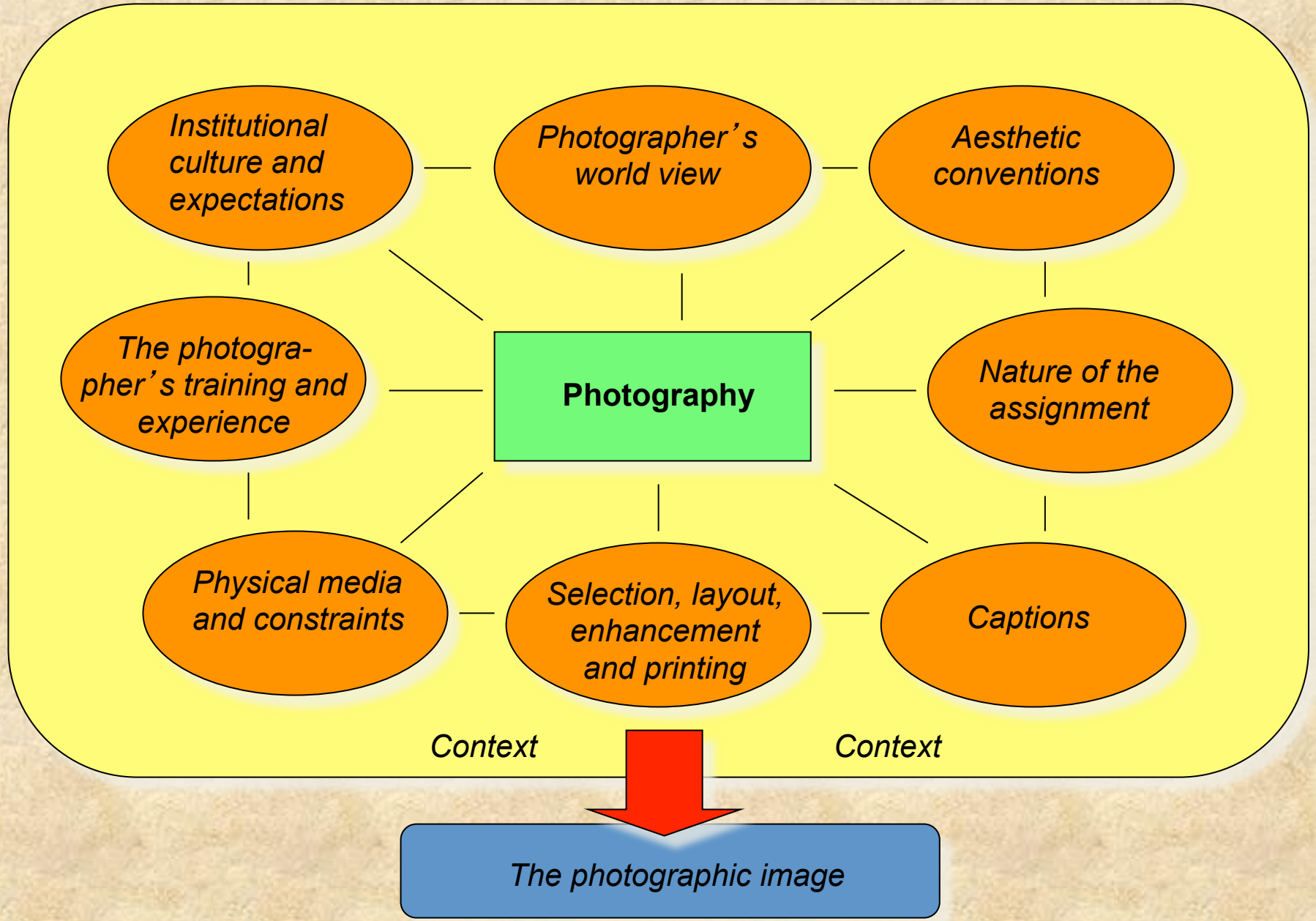
Photographs are often subject to multiple readings

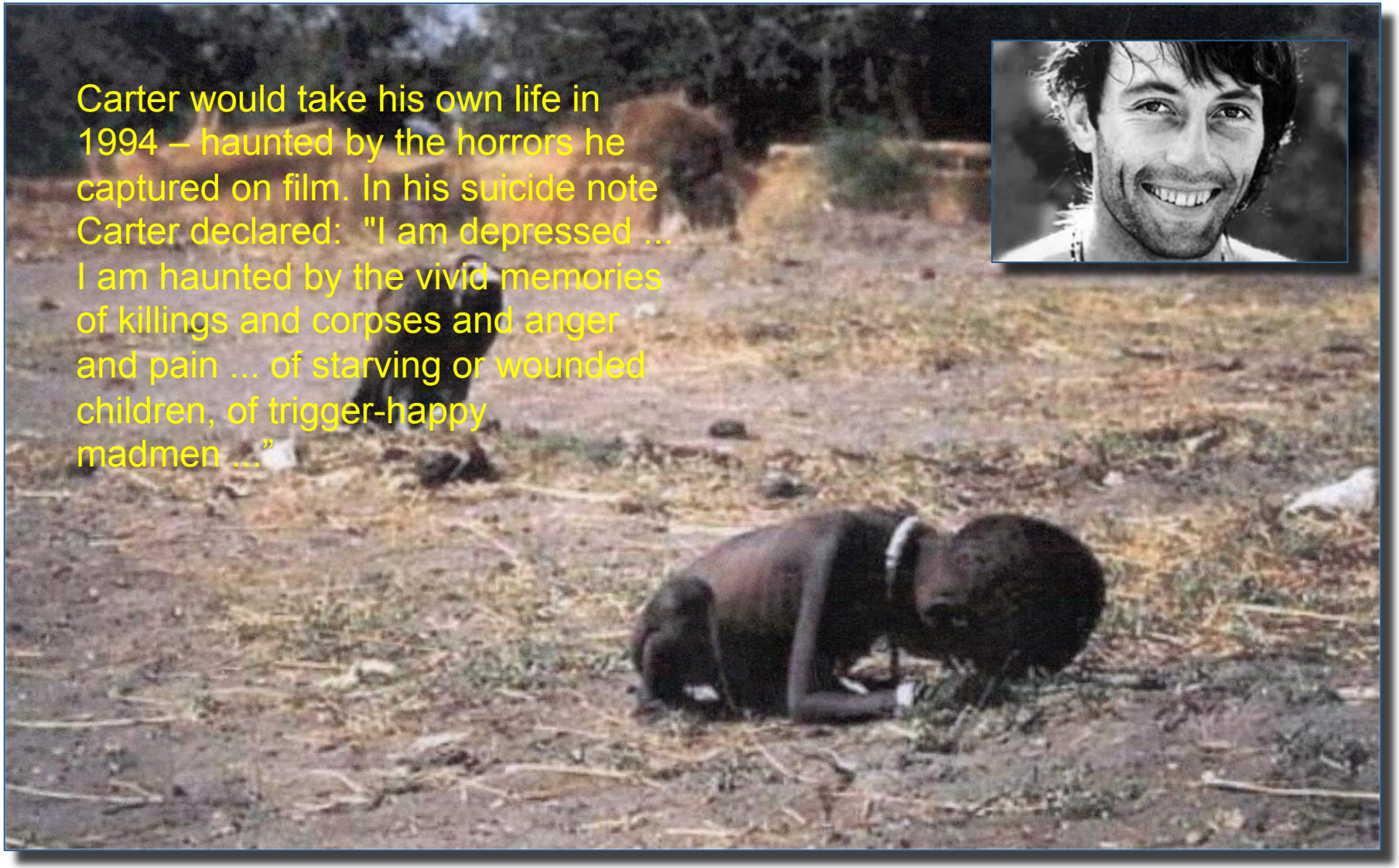
Photographs are much more than a simple or objective mirror of reality. They are, a cultural artefact – the result of a complex process of construction.

They are also a powerful form of communication. Visual texts, such as photographs, play a central role in contemporary society. Photographs, film and web-based images have taken over from written texts the principal means by which people construct their understanding of particular physical and cultural contexts.

"*More importantly it can influence people and create powerful emotional responses. We are aware of the meaning of words, but forget that images may have different meanings to different people, and that the meaning of a photograph can depend to a large extent on the context in which it is used. "The Camera never lies" is the biggest lie of all*." Shahidul Alam

Elements of photograph construction



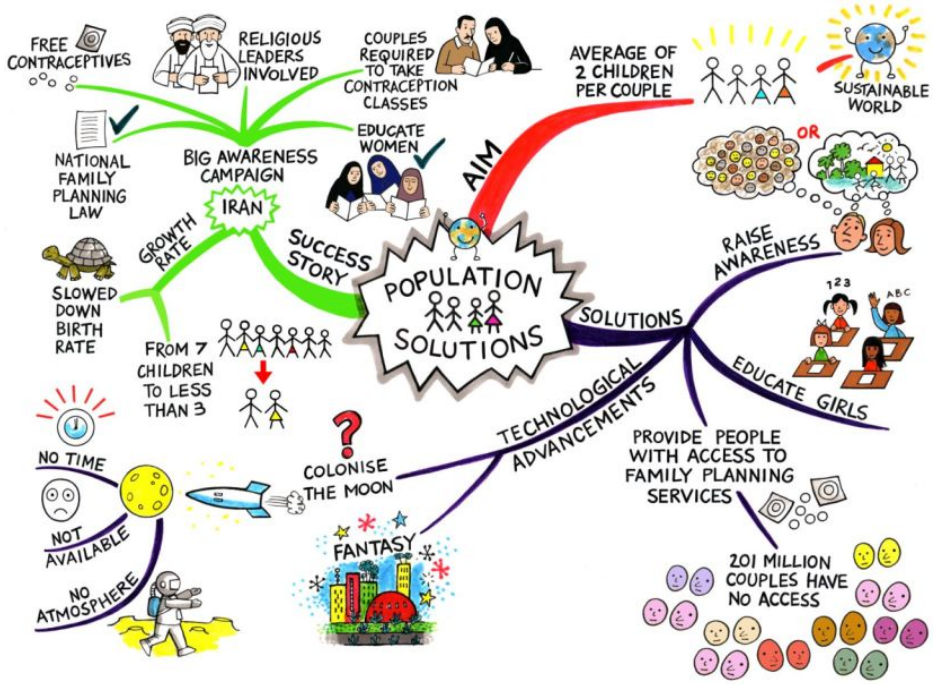


Kevin Carter, a South African photographer, took his Pulitzer Prize winning photograph of emaciated Sudanese girl in 1983. The girl collapsed on the way to a feeding centre while a vulture lurked in the background.

Mind Maps

A **mind map** is a diagram used to represent ideas, linked to and arranged around a central key word, idea, issue or concept. We can use mind maps to generate, structure and classify ideas.

The elements of a mind map are arranged according to the importance of the concepts, and are classified into groupings, branches or areas. The aim of the exercise is to represent visually the links between ideas and/or pieces of information.



Procedure:

- Start in the centre with the topic
- Use images and symbols throughout the Mind Map
- Select key words and print using upper or lower case letters
- Each word/image is best alone and sitting on its own line
- The lines should be connected, starting from the central image. The central lines are thicker and flowing, becoming thinner as they radiate out from the centre.
- Make the lines the same length as the word/image they support
- Use multiple colours throughout the Mind Map, for emphasis and also to encode or group.
- Students encourage to develop their own personal style of Mind Mapping.
- Use emphasis and show associations in your Mind Map.

Hypotheticals and Role plays

You be the judge

A group of developers wishes to convert Gogleys Lagoon into a canal estate and resort complex. The canal estate will have 300 building sites with water frontages. The resort will include a 110-room hotel, a marina and a retail complex housing shops and restaurants. When completed, the resort will create 160 permanent jobs. Local environment groups have objected to the development on the grounds that it will destroy the environmentally sensitive lagoon ecosystem. The pro-development council has approved the development. Those opposed to the development have gone to the Land and Environment Court in an effort to have the development stopped. You are the judge of the Land and Environment Court. Will you allow the development to go ahead?

Sample activity:

Read each of the statements made by members of the community and then complete the following tasks:

1. List the statements that are in favour of building the resort and its facilities. Make a separate list of the statements that are not in favour of the development going ahead.
2. Which set of views do you agree with?
3. In small groups of four or five students, discuss the different views about the proposed development. Study the map extract and evaluate the suitability of the site. Reach agreement on what you think should happen. Be prepared to defend your group's point of view when you report back to the class.
4. Examine both sides. Have the people on each side of the discussion in Activity 3 present the case for the other side, using exact arguments.
5. Discuss in class the statement: 'The resort should go ahead'.
6. At the end of the debate, conduct a secret ballot to determine whether the class will recommend that the resort should go ahead.
7. Write an exposition outlining the arguments you would use to justify your point of view on the issue.

Using Cartoons

Why use cartoons?

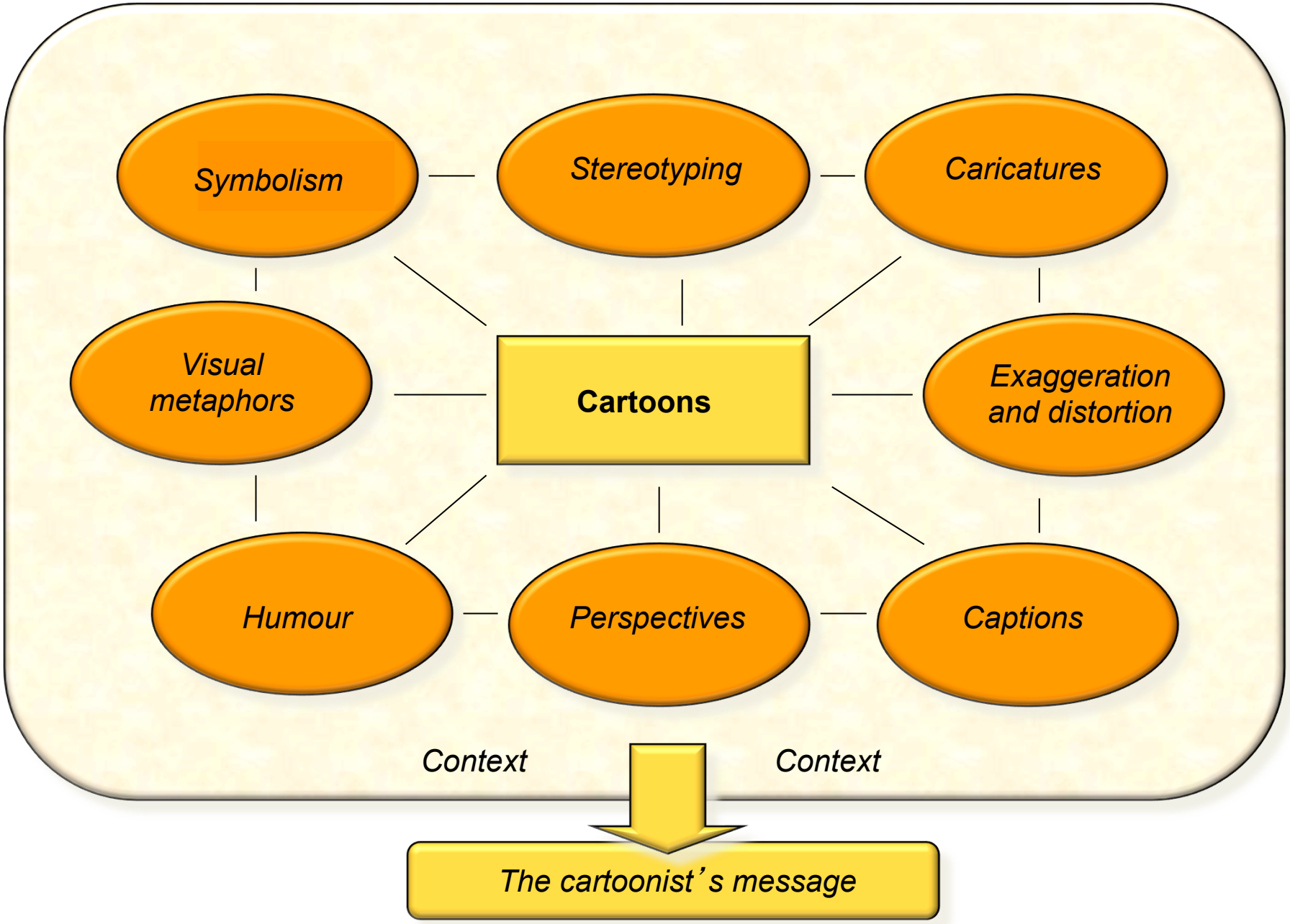
Used in an educational context, cartoons are seen as having several distinct, thought interrelated, advantages. These include:

- Promoting interest in a particular idea, issue, event or social trend
- Initiating discussion and debate
- Enhancing understanding of often complex ideas, issues, events or social trends
- Developing critical thinking skills
- Assessing student understanding – particularly effective where an overall appreciation of a topic, rather then the restatement of specific facts, is the principal aim.

But there is a problem:

- Literal (descriptive) responses common
- Many students lack the necessary contextual knowledge
- Many more lack the knowledge and skills required to analyse cartoons effectively

Elements of Cartoons



Symbolism – the inclusion of representational forms or images that have meaning beyond what is obvious and immediate

Visual metaphors – Artistic devices used to help our minds come to grips with complex ideas by relating them to something more familiar and readily understoodText here

Humour – Irony (an expression in which the true meaning is the opposite of the literal meaning) and Satire (the use of ridicule or scorn, often in a humorous or exaggerated way, to expose vices and follies) are often employed to give a cartoon a humorous edge.

Caricatures – Illustrations that exaggerate or distort the prominent physical features and/or idiosyncrasies of a subject to create an easily identifiable visual likeness.

Institutional culture

Perspective – The position, stance or point of view adopted by the cartoonist.

Captions – Text-based statements (or captions) are used to reinforce and contextualise a cartoon's non-verbal elements. In other words, they complement, rather than render obsolete, the other elements of a cartoon.

Stereotyping – Characteristics ascribed to groups of people involving gender, race, national origin and other facts

Tone – The mood created by a cartoon provides important insights to the cartoonist's attitude towards the subject and his/her audience.

Exaggeration and distortion

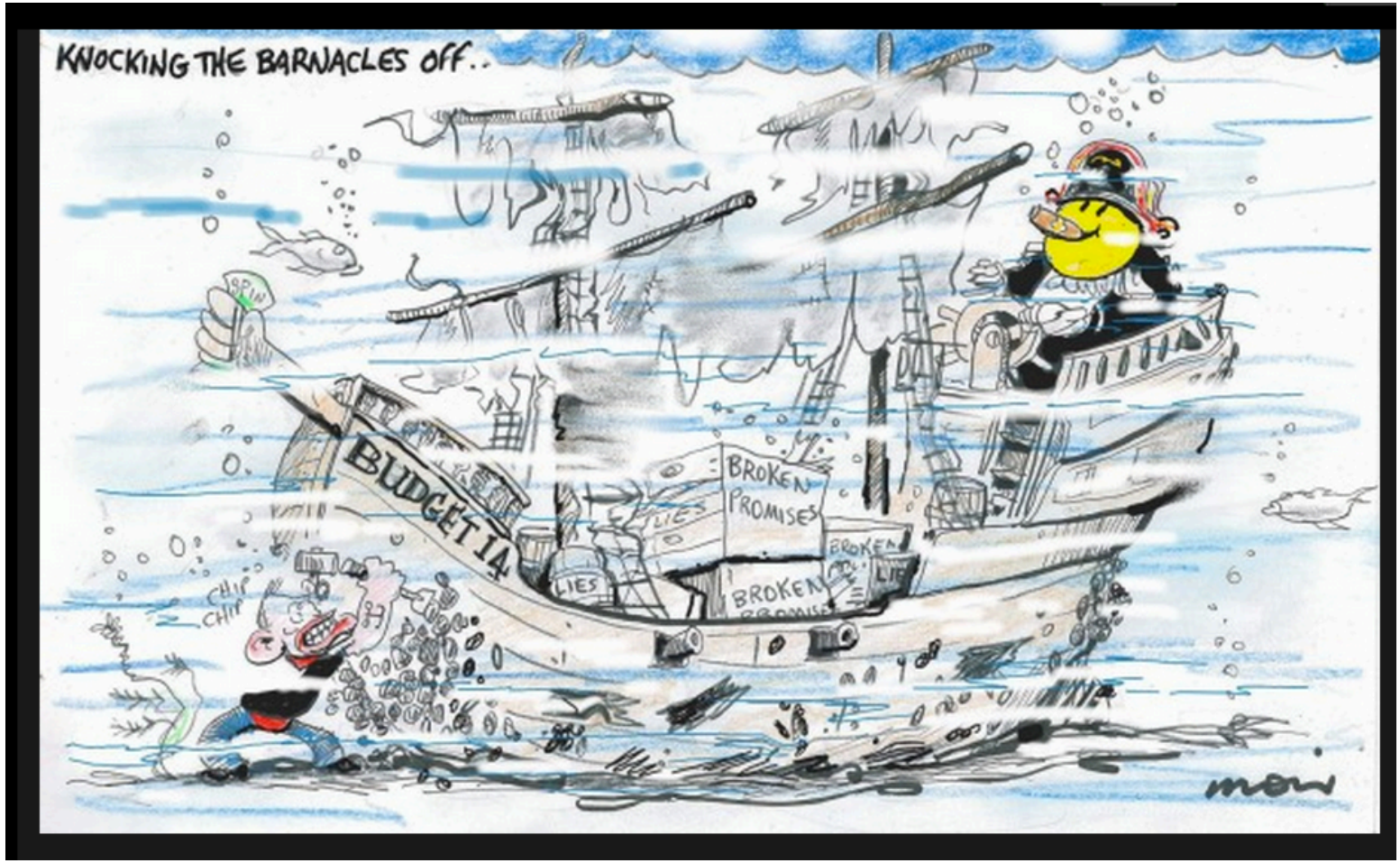
Types:
- Editorial
- Gag
- Caricatures
- Comic strips

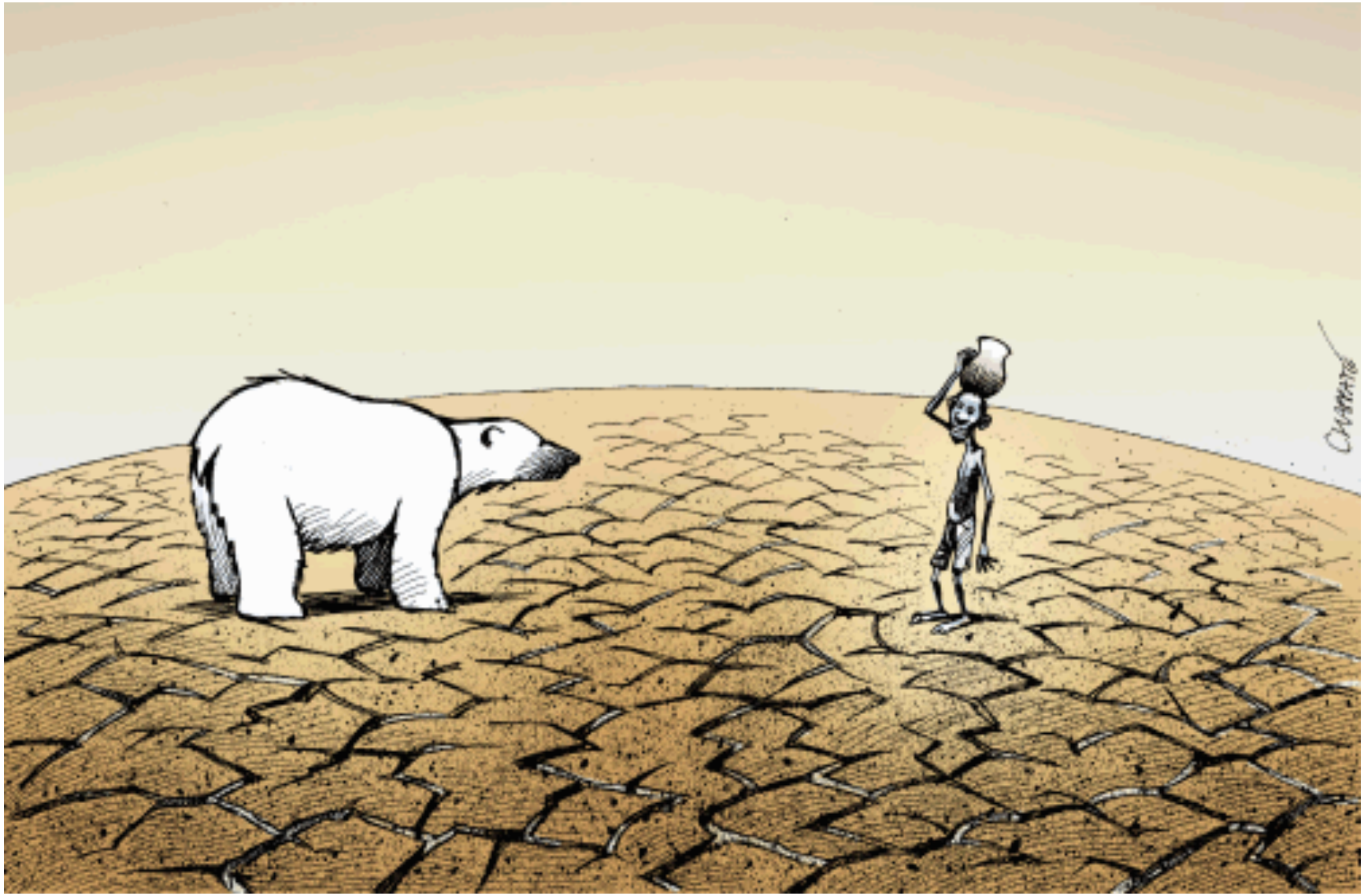
Caricatures

Symbolism


WEBECKE

Visual metaphors





Intertexuality: (The meanings and associations rising out of the relationships between a text and other texts and/or cultural context) & **appropriation** (The meanings and associations rising out of the relationships between a text and other texts and/or cultural context)

A GREENHOUSE NIGHTMARE...

Mindmap analysis of a Nicholson cartoon

Issue: Global inequality and access to natural resources.

Issue: Do those living in developing countries have a right to enjoy the same material standard of living as people living in developed countries? What are the implications of this for global warming?

Large family home – used to **symbilise** the high standard of living enjoyed by those living in developed countries relative to those in developing countries.

Caption used to reinforce the point being made by the cartoonist.
Used to emphasise existing inequalities and the possible impact of rising material standards of living in developing countries.

House full of domestic appliances. Powered by electricity generated via the burning of fossil fuels which add to carbon dioxide concentrations in the atmosphere.

Simple dwelling symbolic of the low living standards experienced by many of those living in developing countries.

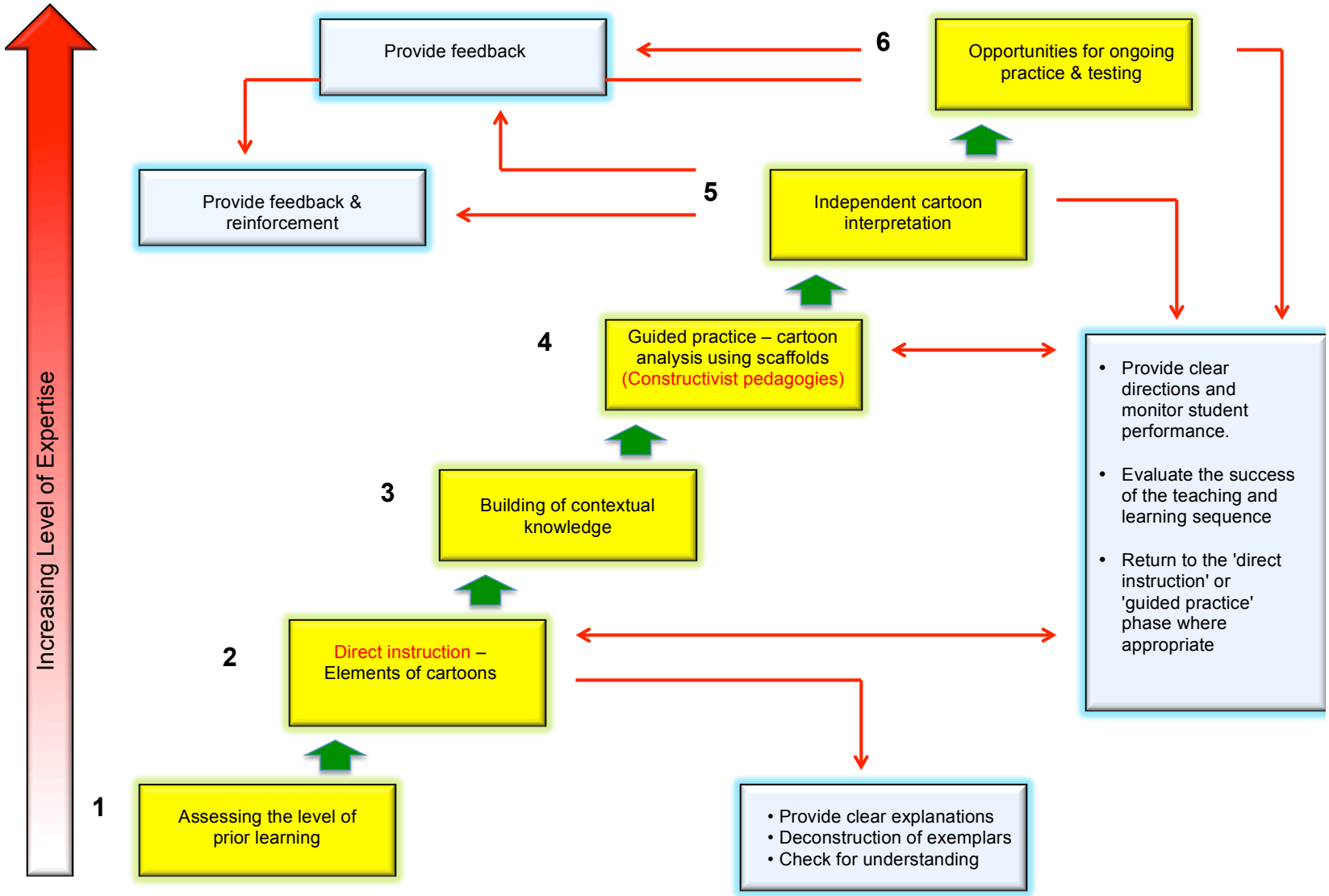
Climate change, rising sea levels, glacial retreat and an increase in extreme weather events.

Few material possessions (especially electrical appliances and motor vehicles) – Low levels of energy consumption.

Symbolic of the gulf between the living standards of people in developing countries and those living in developed countries.

Two motor vehicles powered by petrol, a fossil fuel. The burning of fossil fuels is linked to increasing concentrations of greenhouse gasses in the atmosphere.

Skill-based Instructional Sequence: Cartoon Analysis



Cartoon Analysis Scaffold

Newspaper, magazine or URL: _____

Cartoonist: _____ Date of publication or Internet access: _____

Glue a copy of the cartoon here.

Visual elements

1. Identify any symbols or visual metaphors used by the cartoonist. What do these symbols and visual metaphors represent?

_____

_____

_____

_____

_____

_____

_____

_____

2. Has the cartoonist used caricature? If so, identify the person/persons featured in the cartoon. What physical features has the cartoonist deliberately exaggerated? What is the impact of this exaggeration? What does it suggest about the person/persons shown?

_____

_____

_____

3. Is there evidence of stereotyping in the cartoon? If so, describe it.

_____

_____

_____

_____

ed elements

e cartoon have a caption and/or title?

_____

_____

_____

words or phrases used by the cartoonist to objects or people within the cartoon?

_____

_____

_____

_____

Key definitions:

Caption: A statements used to reinforce the cartoon's visual elements.

Caricature: The portrayal of an individual's physical features in an exaggerated or distorted way.

Visual metaphor: An image, object or setting that is representative of something else.

Perspective: The point of view adopted by the cartoonist.

Symbol: An element of a cartoon (for example, an object or sign) used to represent something else.

words or phrases in the cartoon appear to be the most important? Justify your selection.

_____

_____

the issue addressed in the cartoon.

_____

_____

, in your own words, the opinion or point of view being advanced by the cartoonist.

_____

_____

_____

_____

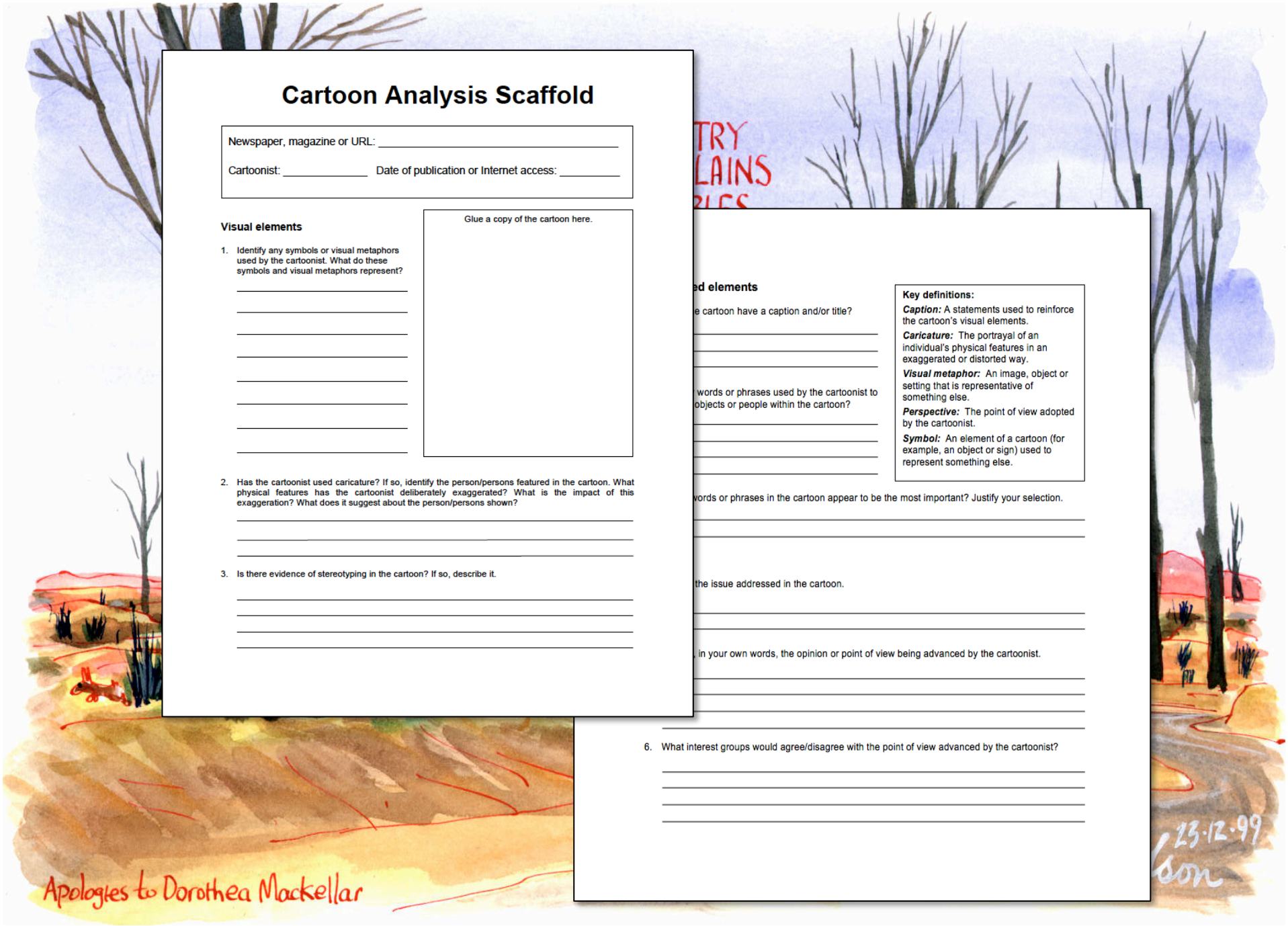
6. What interest groups would agree/disagree with the point of view advanced by the cartoonist?

_____

_____

_____

_____



Cartoon Interpretation Scaffold

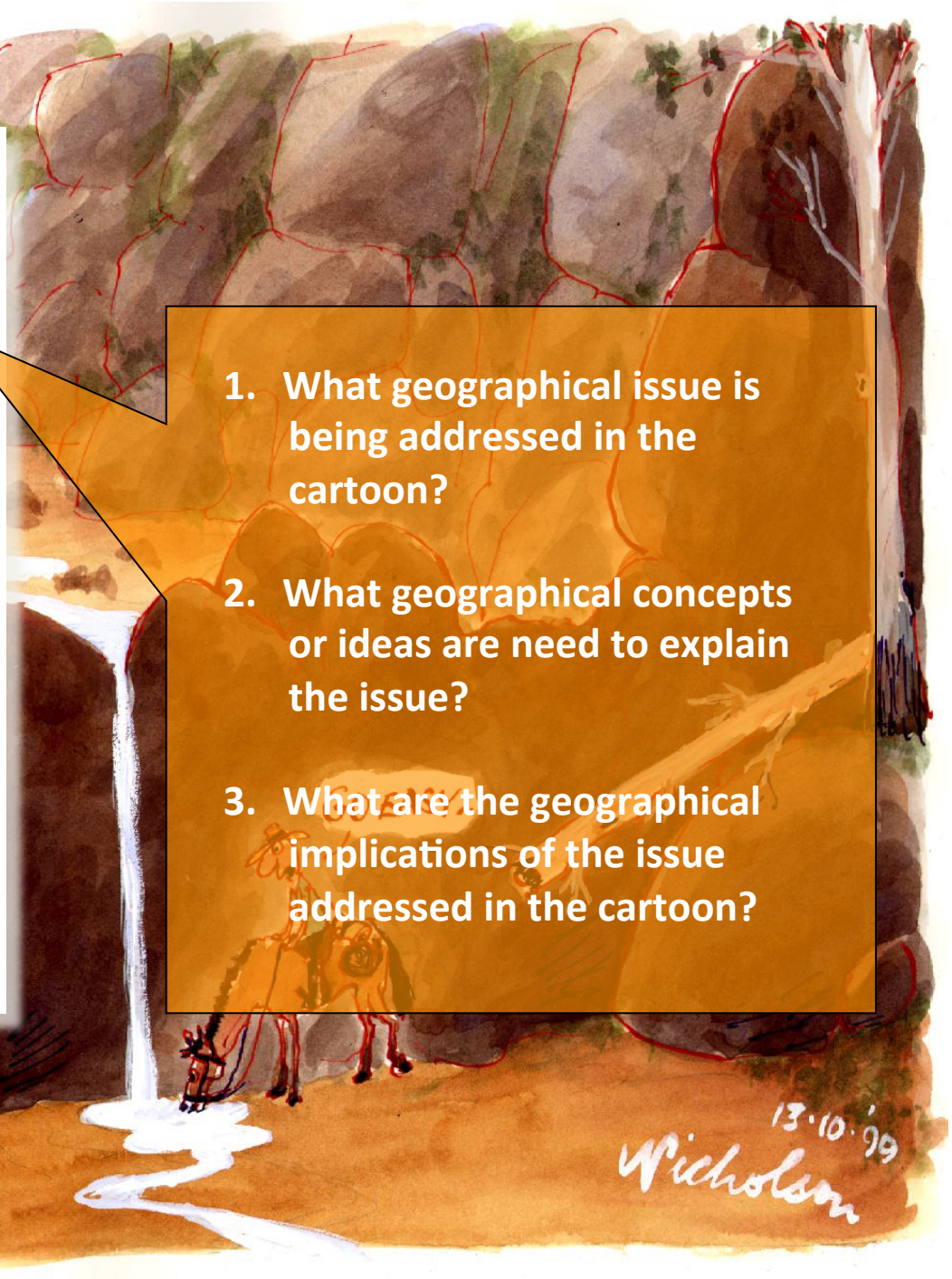
Cartoon interpretation scaffold

Description: A statement outlining the nature of the cartoon's subject matter. This might, for example, include a statement identifying the geographic issue being addressed and the perspective adopted by the cartoonist.

Analysis: In interpreting the cartoon you should identify the range of geographic concepts or generalisation relevant to the issue being addressed and use these to demonstrate your understanding of the issue. You might also evaluate the point of view or perspective adopted by the cartoonist and include reference to alternative perspectives relevant to the issue.

Implications: This part of your response requires you to apply your geographic knowledge and understanding to outline the geographical implications of the issue addressed in the cartoon.

1. What geographical issue is being addressed in the cartoon?
2. What geographical concepts or ideas are need to explain the issue?
3. What are the geographical implications of the issue addressed in the cartoon?



- *Stage 1.* **Description.** This stage involves the identification of the issue being addressed in the cartoon. In addition to naming the issue this statement should include a brief outline of its geographical significance and identify the perspective, stance or point of view of the cartoonist. It might also include an explanation of how the various elements of the cartoon contribute to the message the cartoonist is seeking to convey.

- *Stage 2.* **Analysis.** In analysing the cartoon, students should first identify the geographic concepts/generalisations relevant to the issue being addressed. Students should then demonstrate their understanding of these concepts by using the appropriate terminology in context to discuss/explain the geographic processes/ phenomenon central to the issue. Alternative perspectives can also be mentioned in this section of the response.

- *Stage 3.* **Implications.** This stage involves the students applying their knowledge and understanding of the cartoon's subject matter to discuss the geographical implications of the issue addressed. In some instances students may be able to use the information obtained to draw inferences and construct generalisations. Where appropriate these implications, inferences and generalisations should be illustrated by reference to specific examples.

Thank You!