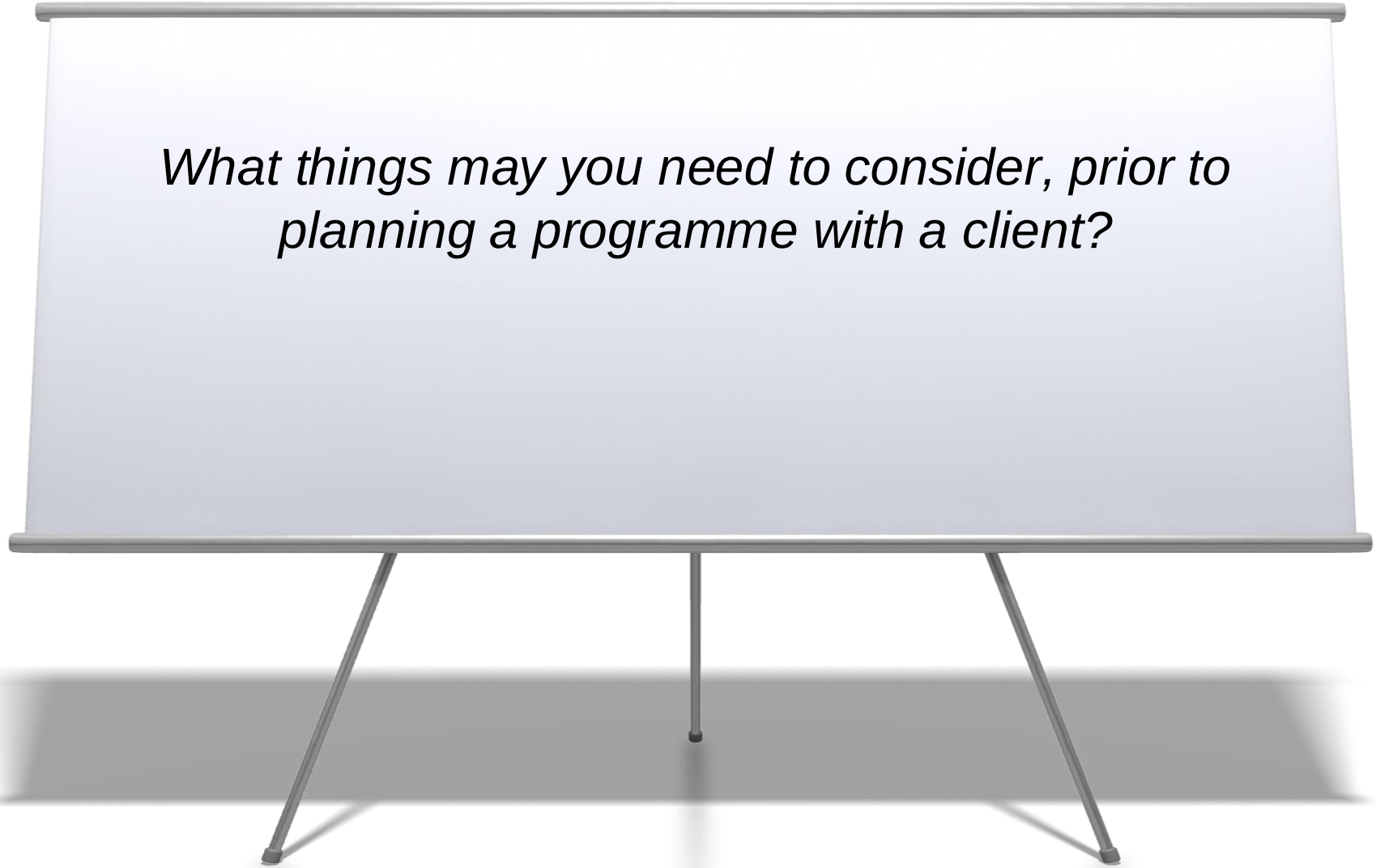
Planning an exercise programme

Unit: Planning exercise referral programmes with patients

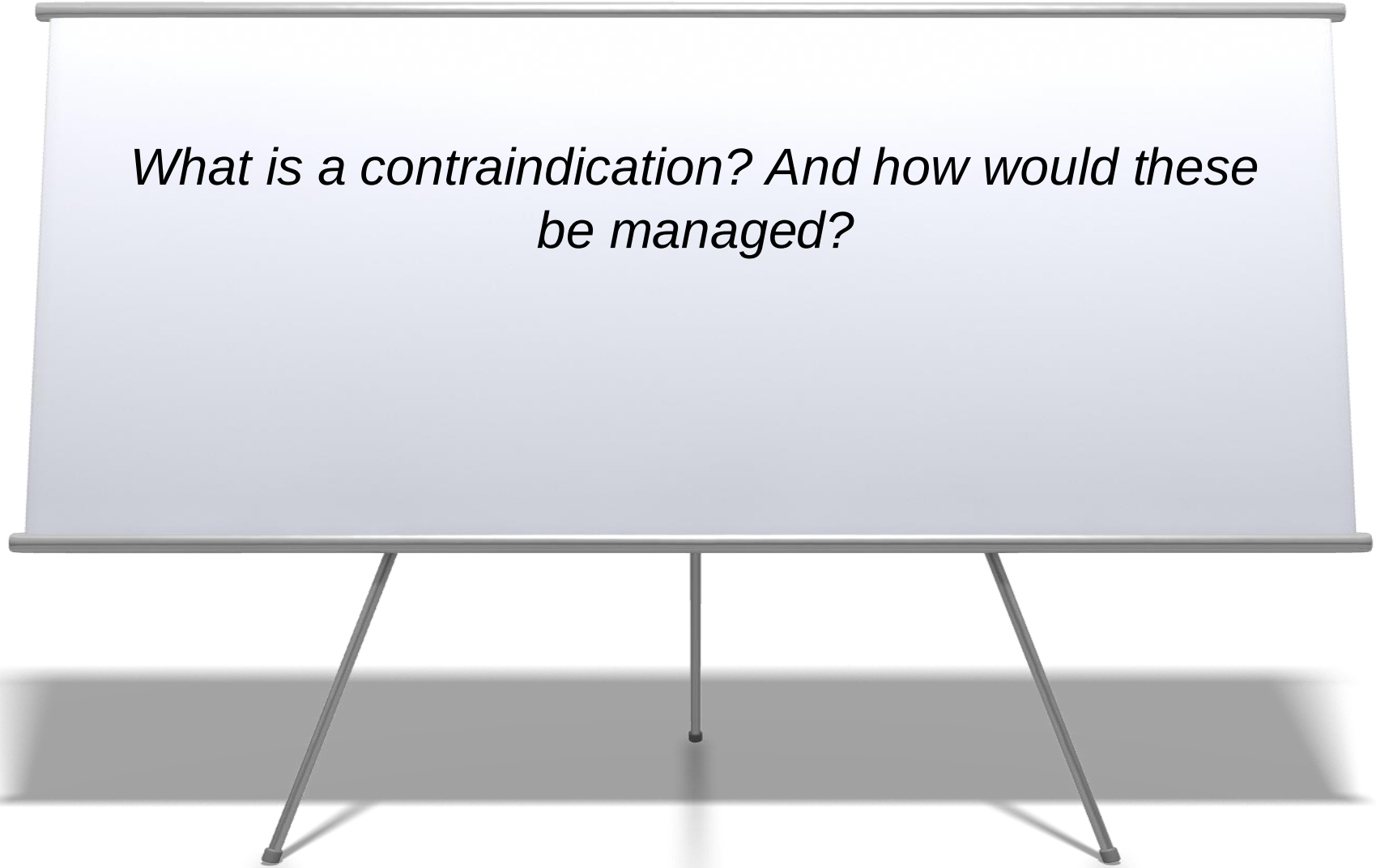
TASK: consider the following



Planning considerations

- Client needs, e.g. Medical condition, medication, goals, age etc.
- Current activity levels
- Any exclusions or contraindications
- Type of programme and session structure
- Components of fitness
- Other activities, e.g. ADLs
- FITT – frequency, intensity, time and type
- Adaptations and modifications required
- Level of supervision
- Environment & Equipment
- Health and safety
- Other professionals involved

TASK: consider the following



Contraindications

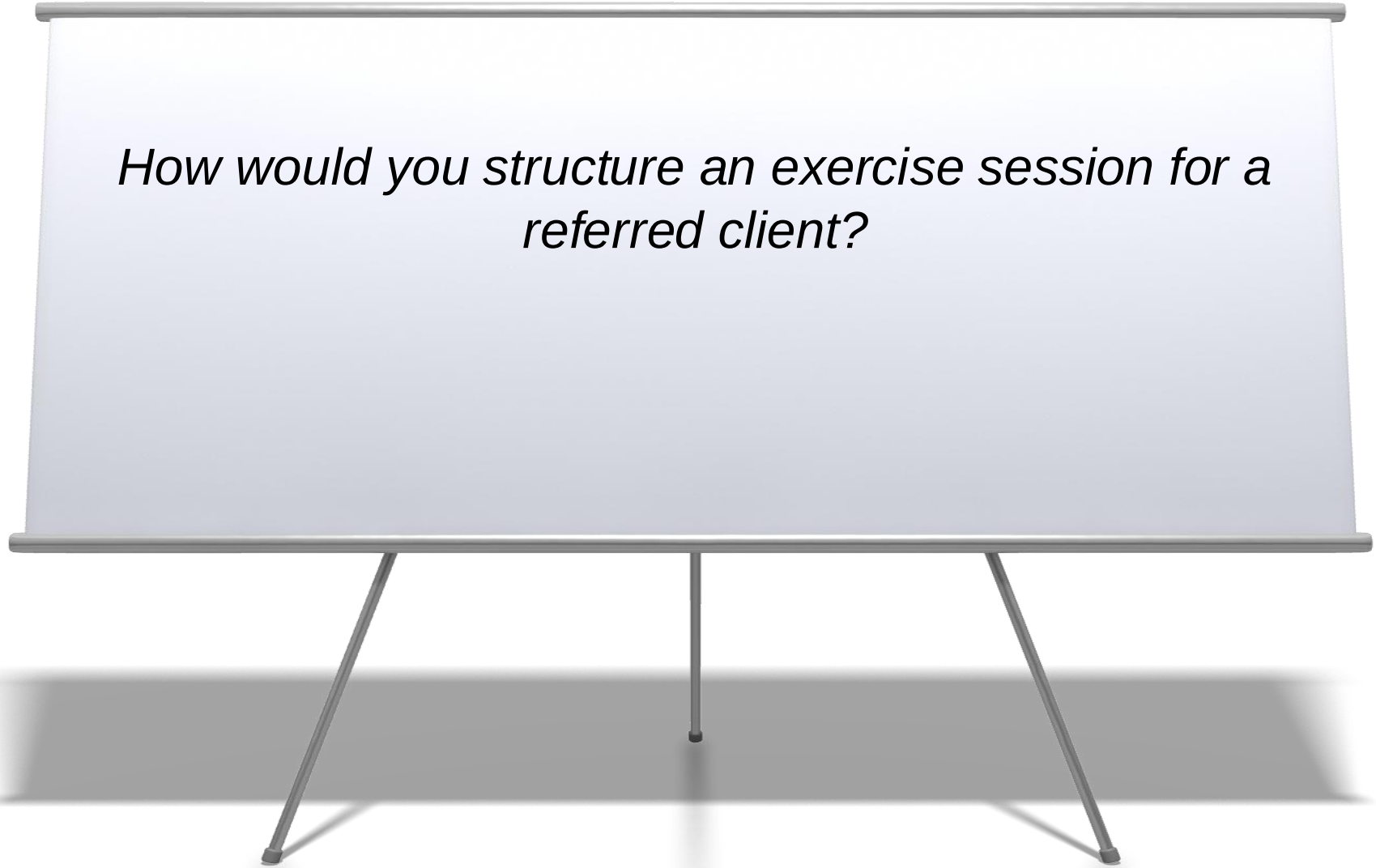
- The application of a particular treatment or intervention is not advisable, because it may increase the risks to the client
- An absolute contraindication is a contraindication which cannot be ignored, because the immediate risk is considered severe
- Listed as exclusion criteria for GP

Absolute contraindications to exercise

1. Unstable* angina (angina occurring at rest, or with unpredictable onset)
2. Resting systolic blood pressure >180mmHg
3. Resting diastolic blood pressure >100mmHg
4. Uncontrolled tachycardia >100bpm at rest
5. Unstable* or acute heart failure
6. Febrile illness
7. Uncontrolled conditions (e.g. uncontrolled asthma or diabetes)

* a condition is defined as being unstable if there has been a need for a change in medication, or deterioration in signs and symptoms in the previous month

TASK: consider the following



Session Structure

Warm up

Prepare the body

Main session

Components of fitness

Cool down

Recovery phase

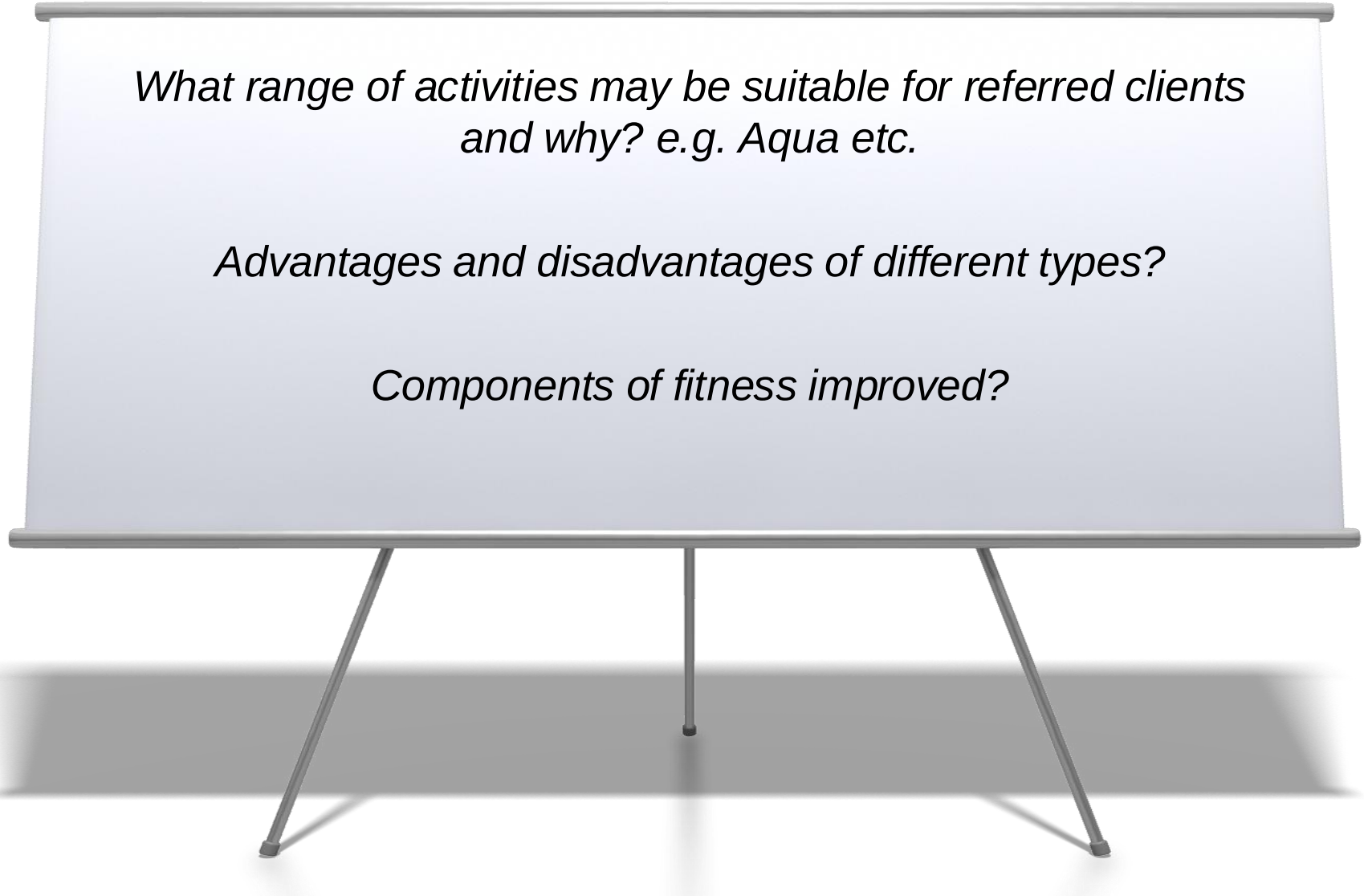
Principles of training

- **Frequency** – how often the activity is undertaken (number of times per week)
- **Intensity** – how hard the activity needs to be, the effort
- **Time/duration** – how long the activity needs to be maintained for (single session/bout)
- **Type/specificity** – the type of activity to bring about the desired training effect (e.g. flexibility, muscular strength/endurance, cardiovascular etc.)

Principles of training

- **Overload** – working the body a little harder to bring about the desired benefits
- **Adaptation** – the way the body responds and adapts to the exercise demands
- **Reversibility** –the loss of training benefits/adaptations when regular activity/exercise ceases
- **Progression** – making an activity or exercise harder (overload)
- **Regression** – making an activity or exercise easier to maintain or sustain the same level of functioning and health (reduce the rate of further deterioration from the condition)

TASK: consider the following



Types of activity

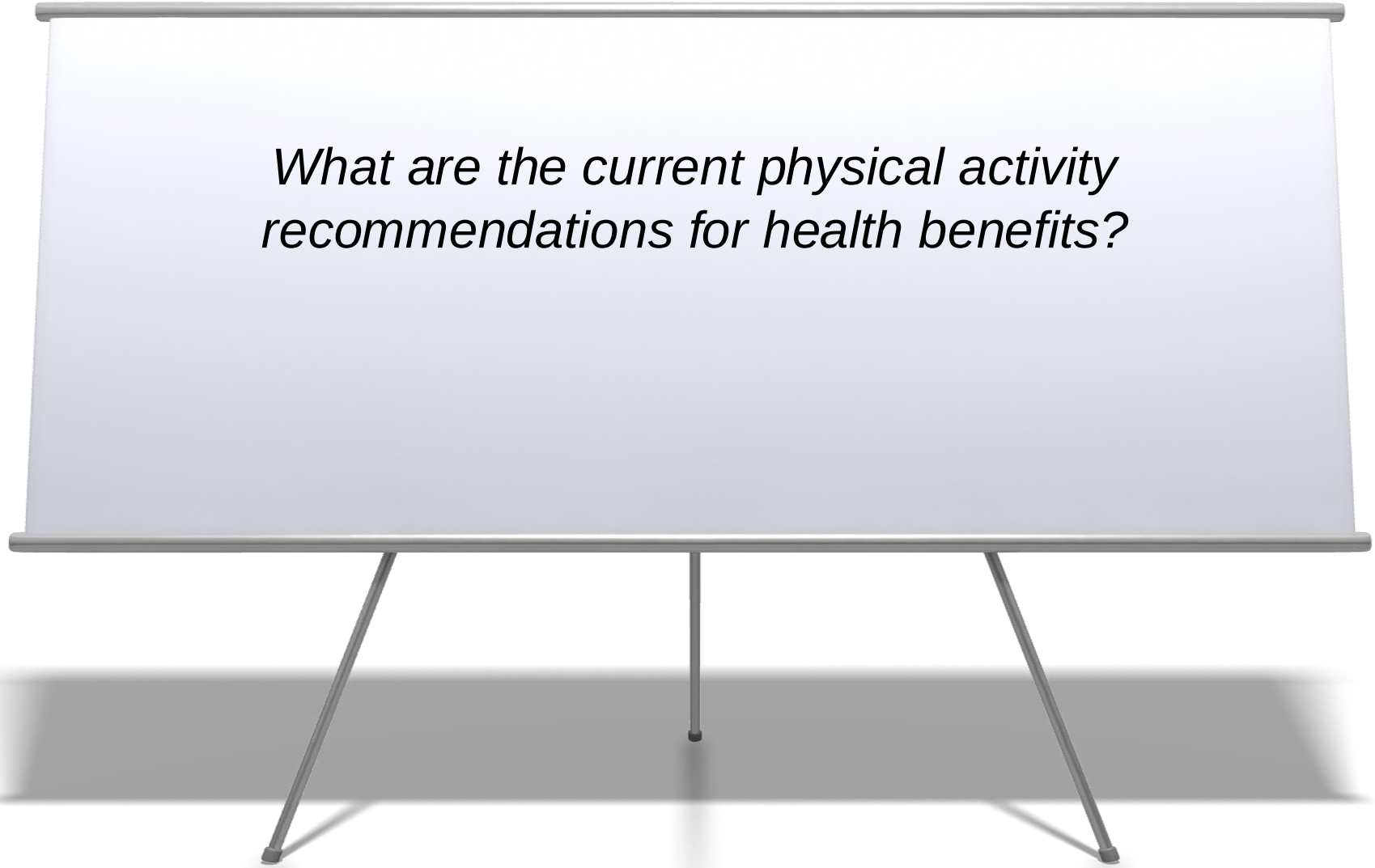
- Aqua
- Gym
- Outdoor walking
- Group exercise
- Circuits
- Yoga
- Pilates
- Other

Advantages or disadvantages

Consider:

- Technical demands
- Physical demands
- Complexity
- Intensity
- Supervision needed
- Qualified staff to deliver
- Health and safety, e.g. Impact, temperature etc

TASK: consider the following

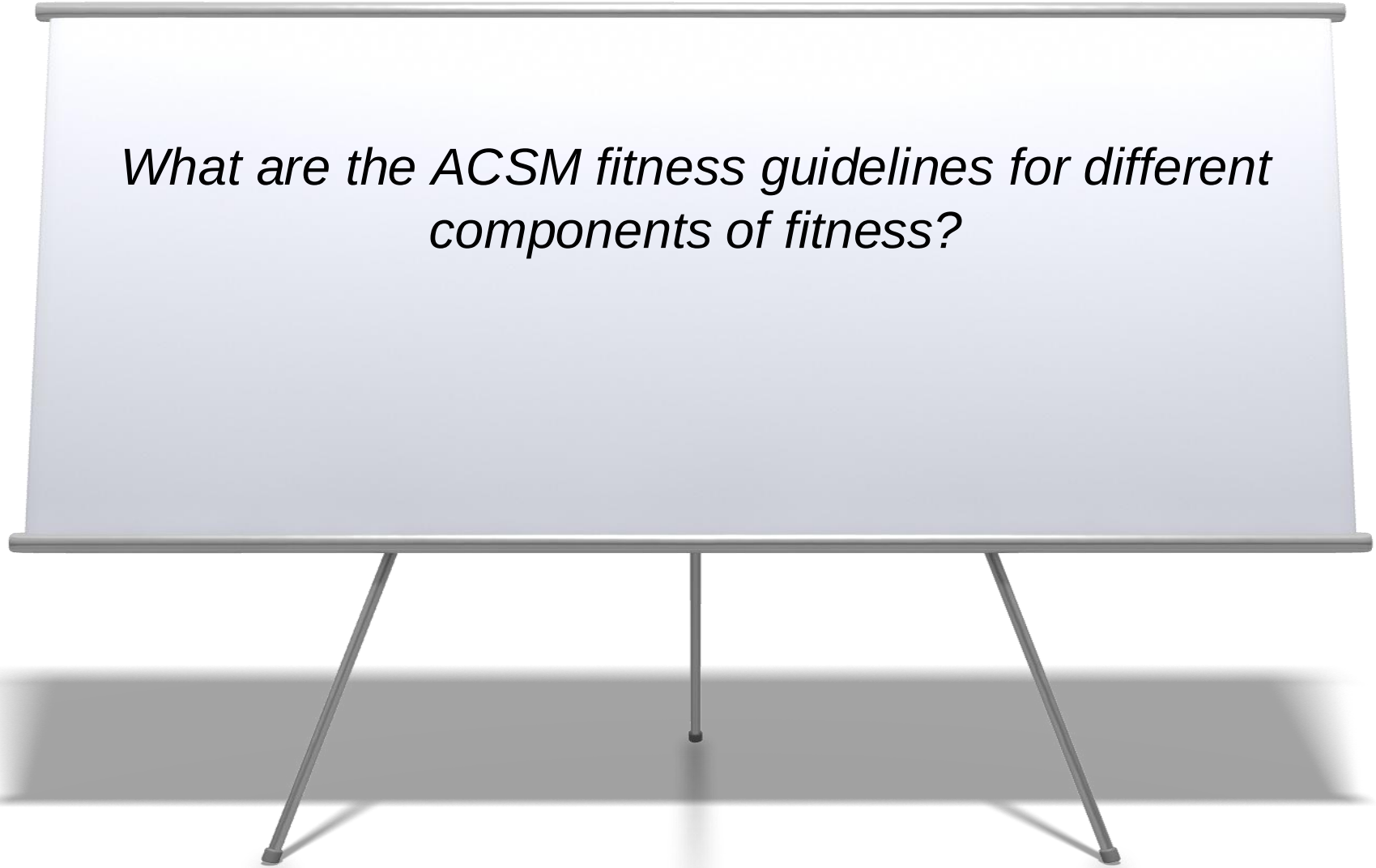


Guidelines

For adults (individuals under 65 years) are:

- 150 minutes of moderate intensity activity accumulated over the duration of 5 days a week,
- Or 75 minutes of vigorous intensity activities on 3 days a week,
- Or a combination of both on 3-5 days a week, and
- 2-3 days a week of muscular strength and endurance training
- For older adults (over 65) include balance and stability activities

TASK: consider the following



Cardiovascular endurance

Frequency and type	Intensity and time
5 days a week minimum Cardiovascular endurance, weight bearing exercises	Moderate intensity 40-<60% VO_2R 5-6 on the 0-10 physical exertion scale 30 minutes (can be accumulated)
OR	
3 days a week minimum Cardiovascular endurance, weight bearing exercises	Vigorous intensity >60% VO_2R 7-8 on the 0-10 physical exertion scale 20 minutes
OR a combination	

Considerations

De-conditioned individuals may achieve benefits from lower intensities

Increasing the intensity and reducing the frequency increases the risk of musculoskeletal injuries

For older adults, activities that do not impose excessive orthopedic stress are recommended (e.g. walking).

Programmes to reduce weight-bearing (aquatic and stationary bike) are appropriate for older adults with physical limitations

Muscular fitness, balance and agility

Frequency and type	Intensity and time	Considerations
2-3 days a week	8-12 repetitions per set 60-80% of individual's 1 RM (fatigue, not failure) 2-4 sets (single sets effective for novices) Rest of 2-3 minutes between sets Older adults and de-conditioned: 1 or more sets 10-15 repetitions per set 60-70% of 1RM	48 hours rest between sessions for the same muscle groups Promote muscle balance Multi-joint (compound) and single joint (isolation) exercises Promote correct technique

Flexibility

Frequency and type	Intensity and time
3-5 days a week (at least 2-3 days a week)	At least 10 minutes All major muscles, 4 repetitions per muscle group To position of mild discomfort Static, dynamic or PNF Older adults static stretches Static stretches held for 10-30 seconds PNF (6 second contraction followed by 10-30 minutes assisted stretch)

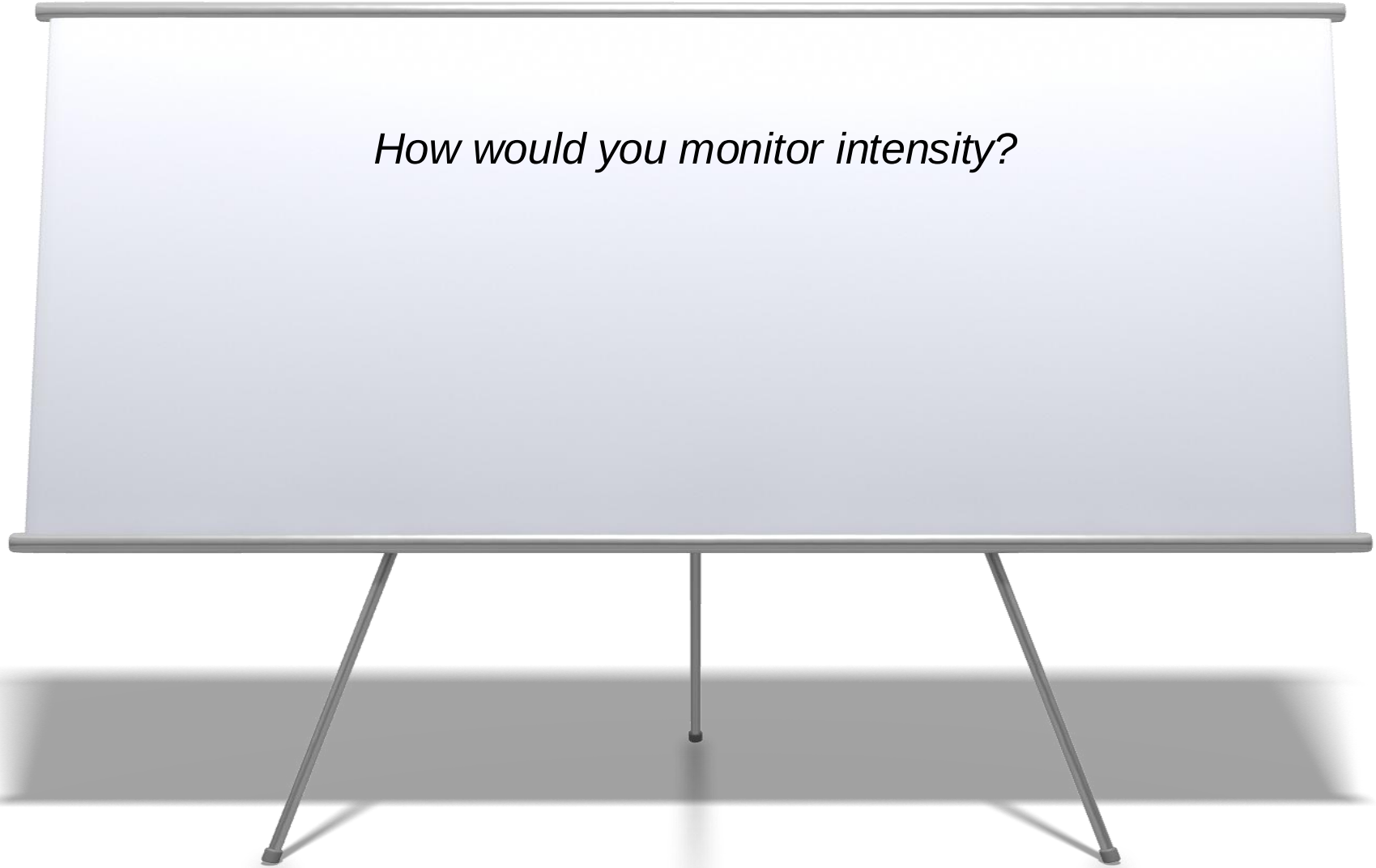
TASK: consider the following

Explaining exercise programmes to clients

Ensure the client understands:

- The physical and technical demands of the planned exercises.
- The different components of the session.
- How they should expect to feel during components (e.g. warm up).
- The exercise response, e.g. Heart rate increases and breathlessness – which may seem terrifying for some (resembles condition symptoms, e.g. Anxiety).

Discussion



Monitoring intensity

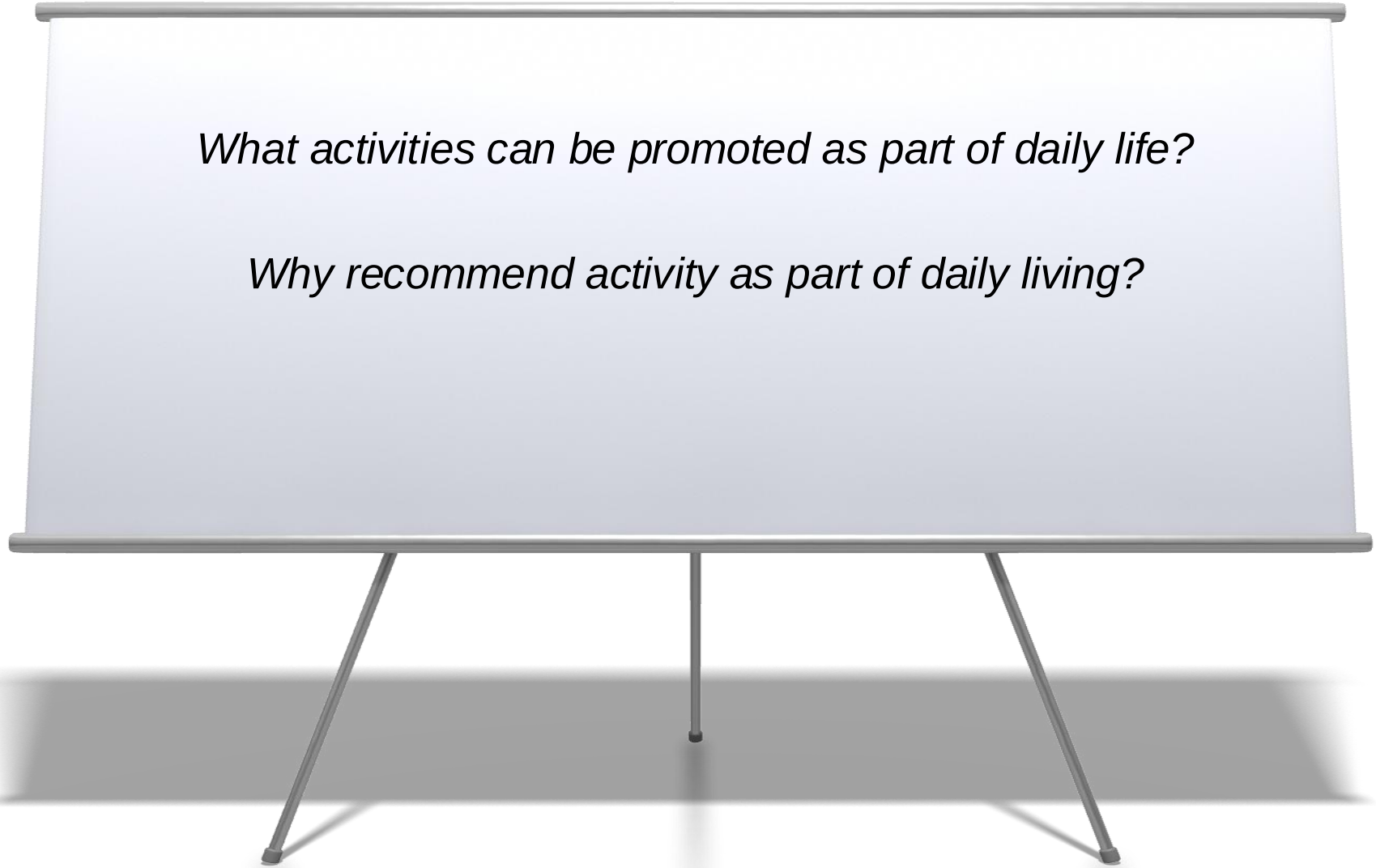
Methods:

- Observation
- Talk test
- RPE
  - 0-10
  - 6-20
- Heart rate monitoring

Considerations:

- Individual needs
- Medication
- Medical condition
- Current activity/fitness level
- Supervision

TASK: consider the following



Physical activity as part of lifestyle

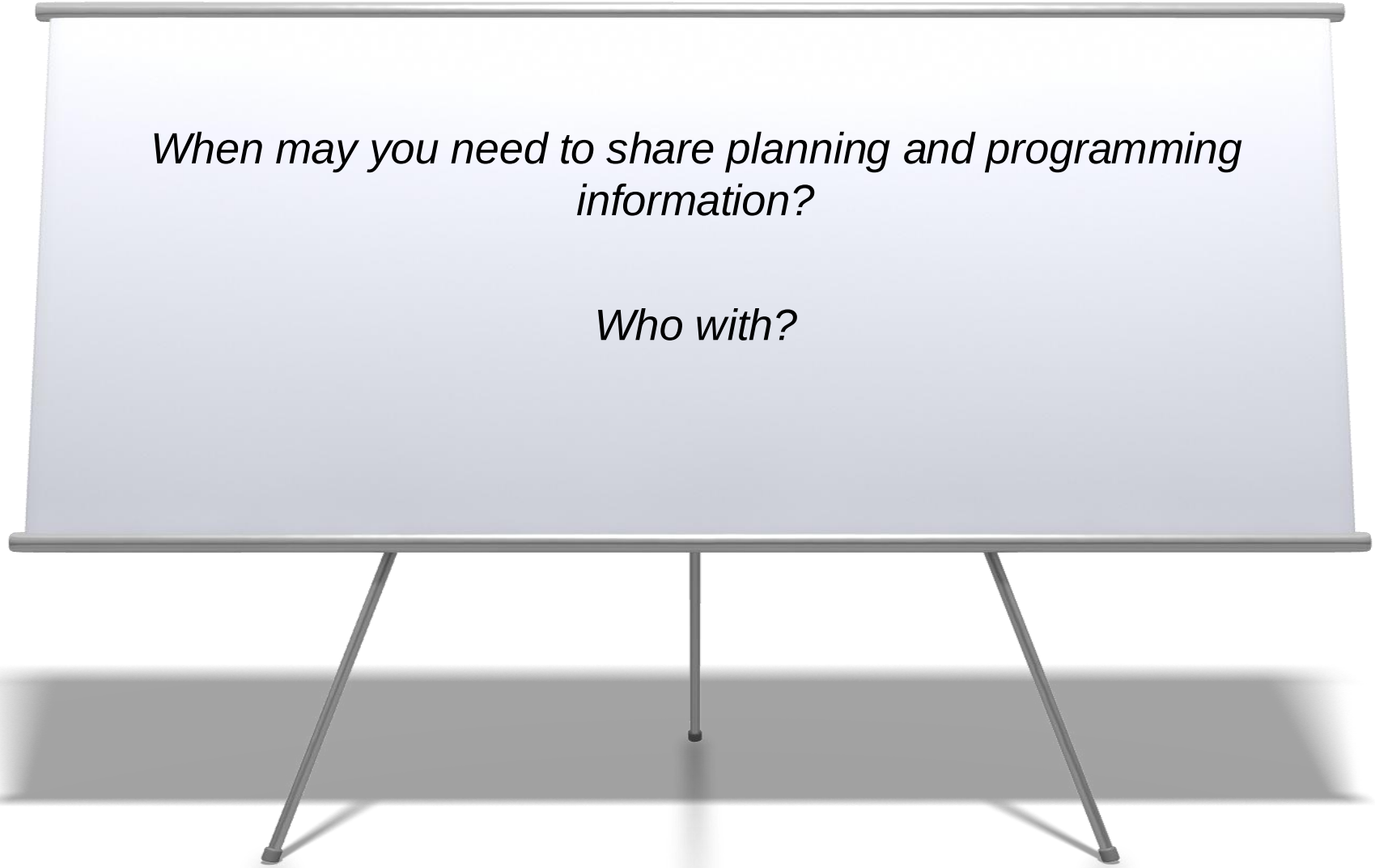
Reasons:

- Raise activity levels
- Promote adherence
  - e.g. for those who do not enjoy or tolerate structured exercise
- Help maintain life-long health improvements
- Meet recommended activity targets

Types of activity:

- Housework
- Gardening
- Sweeping
- Taking stairs
- Walking to shops
- Active travel

Discussion


When may you need to share planning and programming information?
Who with?

Sharing exercise programmes

- Periodical programme reviews
- To seeking additional support and information
- Exit routes
- Session cover, e.g. leave or sickness
- New symptoms present
- Legal
- Commissioning
- GPs
- Multi-disciplinary working
- Other health care professionals, e.g. physiotherapist, dietician
- Other instructors, e.g. cover,
- Follow procedures for sharing information, e.g. Confidentiality and informed consent

Considerations

- Plan a programme that is appropriate to the client's:
  - medical condition/s
  - goals
  - level of fitness
- Ensure the appropriate components of fitness are built into the programme
- Apply the principles of training to help achieve the client's goals